



GOVERNMENT OF KERALA

MANPOWER STUDIES

VOLUME V

ECONOMICS AND STATISTICS DEPARTMENT
TRIVANDRUM

1982

PRINTED BY THE S. G. P. AT THE GOVERNMENT PRESS, SHORANUR—1985

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FOREWORD

Manpower Planning is of prime importance in a State like Kerala having excess supply of educated manpower. A manpower division attached to this Directorate started functioning in April, 1974 with a view to strengthen the manpower information system of the State for an efficient system of manpower planning.

This division could so far publish 25 study reports on manpower subjects in its previous four volumes of 'Manpower Studies'. Besides 2 reports have been published separately by the division. This volume, the fifth, comprises four manpower studies on different disciplines, a "Hand Book of Technical Institutions in Kerala" and a "Statistical Review on Admission of Candidates for B. Sc. Engineering Courses, 1980-81".

It is hoped that the contents of this volume will be useful for Planners and Administrators.

DR. R. S. KURUP,

Director,

Economics and Statistics Department.

Trivandrum,

7-12-1982.

PREFACE

MANPOWER STUDIES is a series of publication from the Manpower Division of Economics and Statistics Department commenced with the objectives of "Tracking the exact supply and demand conditions of manpower and bottlenecks thereof for meeting effectively the challenges of employment generation, manpower utilisation and training of personnel".

This volume contains four Study Reports, a Handbook and a Statistical Review.

The first study is on "Utilisation of Agricultural Post-graduates in Kerala". Agricultural Post-graduates have a strategic role to play in modernising agriculture. In Kerala the college of Agriculture, Vellayani, is the only institution conducting Post-graduate Course in Agriculture. This study covered all agricultural post-graduates who passed their examination from 1963 to 1978 and found all of them employed, though a small percentage remained under utilised.

The second study is on "Utilisation pattern of Apprentices in Kerala". The Department of Industrial Training implements the Apprenticeship Training Scheme in Kerala. This scheme has been introduced to organise the training of apprentices in industry with a view to meeting increased demand for skilled craftsmen. It throws light on the employment and unemployment position of trained craftsmen. 82.4 % of the apprentices were found employed, principally in the public sector, of which 70% were permanently employed and the rest temporarily. It is also revealed that trained apprentices were not fully utilised in the industrial sector of the State.

The third study is on "Preparation of middle level Manpower for Industries in Kerala". In the State two methods of preparing middle level manpower for industries are followed, viz., Institutional Training Programme and Apprenticeship Training Programme. This study analyses the historical development of craftsmen training programme, special training programme, and also the imbalance between demand and supply of technically trained personnel.

The fourth study is on "Growth of Employment in State Government Sector". Unemployment is the biggest problem in this land of highest literacy. State Government is the biggest employer. An analysis of employment position in different departments is made to examine the growth trend of employment in State sector. It revealed that the Government sector has reached an 'employment saturation' stage and as such self-employment schemes are the best alternative to handle the 'Army of the Unemployed'.

Item five, "A Handbook of Technical Institutions in Kerala—1981" is a real guide to the working of Department of Technical Education in the State.

Item six, "A Statistical Review on Admission of Candidates for B. Sc. Engineering Courses 1980-1981" reveals the intricacies involved in Technical Education in the State.

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*Published separately by the Man Power Division.

UTILISATION OF AGRICULTURAL POSTGRADUATES IN KERALA

V. P. NAIR

I. Introduction

Agricultural technical personnel have a key role in the process of transferring traditional agriculture into modern enterprise through scientific research and technological innovations. Modernisation of agriculture involves the adoption and application of science and technology in agricultural production and for implementing the agricultural programmes of the State. Agricultural Graduates and Post-graduates are required. For manpower planning, periodic studies are needed on characteristics and utilisation of agricultural scientists, estimation of stock etc. The present study is to assess the utilisation pattern of agricultural Post-graduates in Kerala.

In Kerala the College of Agriculture, Vellayani is the only institution conducting B. Sc. and M. Sc. courses in Agriculture.

The College of Agriculture, Vellayani was started in 1955 under the control of the Department of Agriculture. Consequent upon the establishment of the Kerala Agricultural University in 1972 the College of Agriculture was transferred to the University. In addition to the B. Sc. (Ag.) course, M. Sc. (Ag.) course and Doctorate programmes are also conducted in the College of Agriculture.

The M. Sc. (Ag.) course was started in 1961 on the following disciplines :—

1. Agronomy
2. Agricultural Botany
3. Agricultural Chemistry
4. Agricultural Entomology
5. Plant Pathology
6. Agricultural Extension
7. Horticulture
8. Soil Science

The annual intake capacity for Post-graduate course is 24. The details showing intake and out-turn of M. Sc. (Ag.) from the year 1961 onwards are furnished in Table 1 appended.

II. Objectives

The main objective of the study is to assess the utilisation pattern of Agricultural Post-graduates in Kerala. Useful information on different characteristics such as educational level, age composition, salary structure, nature of activity, length and variety of experience, training courses undergone etc., also form part of the study.

III. Scope and coverage

The college of Agriculture, Vellayani which is under the control of the Kerala Agril. University, is the only institution in the State conducting Post-graduate course in Agriculture. The M. Sc. (Ag.) course was started in 1961 and Ph. D. course in Agriculture during 1963. This study covers all Agricultural Post-graduates who passed the examination from the year 1963 to 1978 from the College of Agriculture, Vellayani.

IV. Method of collection of data

Mailed questionnaire method for collection of data is adopted for the study. The names and addresses of the Post-graduates were collected from the College of Agriculture, Vellayani. A questionnaire for the study was designed and sent to them requesting to furnish the required information. A specimen copy of the questionnaire is given in Appendix I.

V. Period of the study

The study was started during the last week of September 1979 with a view to complete the same within a period of six months. However due to lack of adequate response and also due to certain difficulties like locating the present addresses etc., the study was extended upto December 1980.

VI. Response

Out of the total number of 351 Post-graduates, only 159 responded and furnished the required information in the prescribed pro forma. The response works out to 45.3%. Details giving number of Post-graduates to whom pro forma have been sent and number responded are furnished in Table 2 appended.

In spite of repeated reminders and also by ascertaining present addresses of the Post-graduates and contacting a few of them personally to furnish the data the response comes to 45.3% only.

The non-response of 54.7% was mainly due to change of residential addresses and whose present addresses were not traceable. Adoption of mailing method is also one of the reasons for such a high percentage of non-response.

VII. General Characteristics

Information collected relates to general characteristics of the Post-graduates such as fathers' occupation knowledge of languages, home State, present domicile, mother tongue, marital status etc.

Out of 159 respondents 83.2% are males and 16.8% are females as shown below. Among the respondent 2.5% belong to Scheduled Castes and 24.5% belong to Backward Class.

	Post-graduate in Agriculture			
	Number	% to Total	Scheduled Castes	Backward Class
Male	132	83.2	2	33
Female	27	16.8	2	6
Total	159	100.0	4 (2.5%)	39 (24.5%)

Among the respondents 22% possess Ph. D. degree in Agriculture.

Marital Status :—88.7% of the respondents are married and 11.3% are unmarried as shown below :—

	Number	% to total
Married	141	88.7
Unmarried	18	11.3
Total	159	100.0

Fathers' occupation :—More than 50% of the respondents reported their fathers' occupation as Agriculture as detailed below :—

	Number	% to Total
Agriculture	93	58.5
Non-Agriculture	66	41.5
Total	159	100.0

Home State and Present domicile :—Out of 159 Post-graduates 94.4% belong to Kerala. The remaining 5.6% belong to other States (Tamil Nadu 2.5%, Andhra Pradesh 2.5% and Pondicherry 0.6%).

According to present domicile of Agricultural Post-graduates it is seen that 90 per cent of them are residing in Kerala. The other States in which the respondents residing at present are Tamil Nadu, Karnataka, Andhra Pradesh, Pondicherry, Orissa and Delhi. The details are furnished in Table 5.

Table No. 6 gives distribution of Post-graduates by place of birth. Out of 159 respondents 92.4 per cent reported their place of birth within any one of the Districts in Kerala. The remaining 7.6 per cent indicated their place of birth outside Kerala. Of this, 5 Post-graduates reported their place of birth within Tamil Nadu, 4 in Andhra Pradesh and one in Pondicherry. Only two Post-graduates were born outside India.

Among those who born in Kerala the number of respondents born in each District is furnished below :—

District	No. of post-graduates born in the District	Percentage to total
Trivandrum	51	34.7
Quilon	19	12.9
Alleppey	21	14.3
Kottayam	20	13.6
Idukki	2	1.4
Ernakulam	12	8.2
Trichur	4	2.7
Palghat	4	2.7
Mala puram	..	..
Kozhikode	3	2.0
Cannanore	11	7.5
Total	147	100.0

Mother tongue & Languages known:—The mother tongue of respondents and their knowledge of other languages were ascertained from all the respondents. The analysis of the mother tongue of the Post-graduates is given below:

Mother tongue	Number	% to Total
Malayalam	143	89.9
Tamil	11	6.9
Telugu	5	3.2
Total	159	100.0

It is seen that 89.9% of the respondents have Malayalam as their mother tongue. Only 6.9% have Tamil and 3.2% Telugu as their mother tongue.

Out of 159 Post-graduates 97.5 per cent have a working knowledge of Malayalam in addition to other languages. Only 2.5 per cent of 159 respondents (ie. 2.5 per cent) have no knowledge of Malayalam language. They belong to Tamil Nadu and Andhra Pradesh.

It is seen that English is known to all the respondents but Hindi is known to 73.6 per cent of the respondents. The remaining 26.4 per cent have no working knowledge of Hindi. The distribution of the respondents who have no knowledge of Hindi according to their mother tongue is as follows :—

Mother tongue	No. of respondents who have knowledge of Hindi	Percentage to total respondents
Malayalam	26	16.4
Tamil	15	9.4
Telugu	1	0.6
	<hr/> 42	<hr/> 26.4 per cent

As regards additional Indian languages, 43 respondents (38.2 per cent) know Tamil, 10 respondents (6.3 per cent) know Kannada, 3 respondents (1.9 per cent) know Telugu and one respondent (0.6 per cent) know Oriya. Foreign languages like German, French and Russian are also known to 8.7 per cent of the respondents.

Age structure.—The age composition of the respondents is furnished below :—

Age group	No. of respondents	Percentage to Total
Below 25	20	12.60
25—30	25	15.70
30—34	39	24.50
35—39	48	30.20
40—44	17	10.70
45—49	9	5.70
50—54	1	0.60
55 & above		
Total	<hr/> 159	<hr/> 100.00

From the above it is seen that 83 per cent of the respondents are below 45 years of age. Only 6.3 per cent are above 50 years. The Post-graduate within the age group 45—49 is only 10.7 per cent. There is nobody below the age of 25 years. The respondents below 35 years form 28.3 per cent. Only one respondent (ie. 0.6 per cent) is above 55 years. This analysis of age structure of Post-graduates helps to indicate the replacement needs on account of superannuation.

As per the above age distribution, 5.7 per cent of the Agri. Post-graduates are within the age group 50—55 years. This shows that 5.7 per cent of Agri. Post-graduates will be retiring in the next 5 year period assuming the age of superannuation as 55. The five year average of this percentage when worked out comes to 1.14 per cent and this indicates the attrition rate due to superannuation per annum. The rate of attrition due to superannuation per annum during the next 10 year period comes to 1.64 per cent. This indicates that the replacement needs during the coming 10 years would be extremely marginal in the case of Agricultural Post-graduates. Therefore there is need to create new avenues of employment for the fresh stock of Agricultural Post-graduates.

VIII. Educational Characteristics

Out of 159 Post-graduates 35 respondents possess Ph. D. in Agriculture. Among the 159 Post-graduates 84.9 per cent got 1st class for M. Sc. while the remaining 15.1 per cent got only 2nd class. It is also seen that 158 of the Post-graduates took their M. Sc. (Agri.) degree from the Kerala Agricultural University whereas the remaining one person passed M. Sc. (Agri.) from New Delhi. The details are furnished below.

	1st class	2nd class	Total
No. of respondents passed M. Sc. (Agri.) from Kerala Agril. University.	134	24	158
No. of respondents passed M. Sc. (Agri.) from other University (New Delhi)	1	..	1
Total	<hr/> 135 (84.9%)	<hr/> 24 (15.1%)	<hr/> 159 (100.0%)

Details showing different subjects taken by the respondents for M. Sc. (Agrl.) are given below.

Subject	No. of Post-graduates M. Sc. (Ag.)	Percentage to Total
1. Agronomy	48	30.2
2. Agricultural Botany	21	13.2
3. Agricultural Chemistry	30	18.8
4. Agricultural Entomology	23	14.5
5. Plant Pathology	26	16.4
6. Agricultural Extension	3	1.9
7. Horticulture	3	1.9
8. Soil Science	5	3.1
Total	159	100.0

From the above it is seen that 30% of the Post-graduates have taken Agronomy. Agricultural Chemistry was taken by 18.8% of the Post-graduates. But only 3.1 per cent have taken Soil Science. Plant Pathology was taken by 16.4 per cent, while Agricultural Botany and Agricultural Entomology were taken by 13.2 per cent and 14.5 per cent respectively. Agricultural Extension as well as Horticulture were taken by less than 2 per cent each.

The Agricultural Programmes of the State are intended to increase agricultural production. Specialists in "Agricultural Extension" are required to attend to the work relating to Agricultural Development Programmes. The Department of Agriculture has also recently introduced the Kerala Agricultural Extension Project (T and V System) with the assistance of the World Bank. For implementation of this programme efficiently more specialists in Agricultural Extension are required. But at present only 1.9 per cent of the Agricultural Post-graduates are found to be specialised in Agricultural Extension. This seems to be inadequate for extension work. Therefore the intake for M. Sc. (Ag.) in the discipline "Agricultural Extension" may be increased so that sufficient number of Agricultural Post-graduates specialised in the subject can be made available for Agricultural extension work in the State.

As already stated 35 Post-graduates possess Ph. D. in Agriculture. The subjects taken for Ph. D. by the respondents are furnished below.

Subject	Number	Percentage to total
Agronomy	10	28.6
Agricultural Botany	3	8.6
Agricultural Chemistry	4	11.4
Agricultural Entomology	6	17.2
Plant Pathology	5	14.2
Soil Science	7	20.0
Total	35	100.0

Three Post-graduates (One M. Sc. and two Ph. D. holders) have passed the All India Examination of A.R.S. also.

Nine Post-graduates possess B. Sc. degree in Science also in addition to the basic degree of B. Sc. (Ag.). One respondent possesses M. Sc., Ph. D. and B. Ed.

Among the 159 Post-graduates 17% have no basic degree of B. Sc. (Ag.). They possess only B.Sc. in Science subjects especially Botany as their basic qualification for admission to M. Sc. course. The remaining 83% have B. Sc. (Ag.) as basic qualification as mentioned below:—

	No.	Percentage
No. of Post-graduates having B. Sc. (Ag.)	132	83.0
No. of Post-graduates without B. Sc. (Ag.)	27	17.0
Total	159	100.0

Among the 132 Post-graduates having B. Sc. (Ag.) as their basic qualification only 25% have First class for B. Sc. (Ag.). The others (i.e. 75%) have passed B. Sc. (Ag.) with second class only. The names of Agricultural Universities from which they took B. Sc. (Ag.) are given below:—

	B.Sc. (Ag.)		Total
	First Class	Second Class	
Kerala Agricultural University	28	78	106 (80.3%)
Agricultural University, Karnataka	3	5	8 (6.1%)
Do. Coimbatore, Tamil Nadu	2	9	11 (8.3%)
Do. Andhra Pradesh	..	6	6 (4.5%)
Do. Delhi	..	1	1 (0.8%)
Total	33	99	132

IX. Employment Position

Among the 159 Post-graduates, 158 are employed and one unemployed. The unemployed is a woman Post-graduate who passed M. Sc. (Ag.) with high second class in Plant Pathology from the College of Agriculture, Vellayani in 1964. She was unemployed only from 1-8-1975 onwards. Previously she was employed as Research Assistant from 1965-1975 in the Research Station at Kayamkulam under the control of Central Plantation Crops Research Institute, Government of India. After 10 years of service she resigned the job for personal reasons. Thus it is found that she is the only unemployed Post-graduate at present but not seeking any job. Therefore this can be taken only as a marginal case which cannot be characterised as unemployment. Therefore according to the present study there is no problem of unemployment among the Agricultural Post-graduates in the State. 99.4% are employed under different organisations in the Agricultural sector within Kerala and also in other states in the country. It is seen that 144 are employed within Kerala and 14 in other states such as Andhra Pradesh, Tamil Nadu, Karnataka, Gujarat, Orissa and Delhi as detailed below:—

State	No. of Post-graduates employed	Percentage to total
Kerala	144	91.1
Tamil Nadu	4	2.6
Karnataka	2	1.3
Andhra Pradesh	5	3.2
Gujarat	1	0.6
Orissa	1	0.6
Delhi	1	0.6
Total	158	100.0

This shows that 91.1% are employed within Kerala. Only 3.2% in Andhra Pradesh, 2.6% in Tamil Nadu, 1.3% in Karnataka and less than 1% (ie. 0.6%) each in Gujarat, Orissa and Delhi.

According to distribution of Post-graduates by sectors of employment it is found that 97.5% are employed under public sector and the remaining 2.5% in the private sector. There is no self employment among Agricultural Post-graduates at present in the State.

Distribution by sectors of employment is furnished below:—

Sector	No. of Post-graduates employed	Percentage to total
Public sector	154	97.5
Private sector	4	2.5
Self employed	..	..
Total	158	100.0

X. Utilisation pattern of Agricultural Post-graduates

The study indicates that Agricultural Post-graduates are employed in different departments under the State Government and Government of India, Corporation/Boards, Kerala Agricultural University and Agricultural Universities of other States, Banks and private Organisations in the Agricultural Sector as detailed below:—

Distribution of Agricultural Post-graduates by type of organisations

Department/Organisations	No. of Post-graduates employed			Percentage to total
	M.Sc.	Ph. D.	Total	
Central Govt. Departments	10	9	19	12.00
Department of Agriculture, Kerala	34	1	35	22.20
Other State Govt. Departments within Kerala	8	..	8	5.10
Corporation/Boards	3	1	4	2.50
Kerala Agricultural University	40	19	59	37.40
Agricultural Universities outside Kerala	1	3	4	2.50
Departments outside Kerala	4	..	4	2.50
Banks	21	..	21	13.30
Private Organisations	2	2	4	2.50
Total	123	35	158	100.00

From the above it is seen that 37.4% of the Post-graduates are employed under the Kerala Agricultural University and 22.20% under the Department of Agriculture, Govt. of Kerala. In the Nationalised Banks in Kerala 13.30% of the Agricultural Post-graduates are employed. The Post-graduates employed under Central Government Departments form 12.0% Only 15.1% of the Post-graduates are employed in other organisations. The details of distribution of Agricultural Post-graduates by type of organisation are furnished in table 9.

Among the 158 Agricultural Post-graduates 63.9% have got appointment before they acquire M. Sc. degree in Agriculture. The remaining 36.1% have got job only after passing M. Sc. (Ag.)

	No.	Percentage
Post-graduates who got job before M. Sc. (Ag.)	101	63.9
Post-graduates who got job after M. Sc. (Ag.)	57	35.1
Total	158	100.0

Out of 101 Post-graduates who got jobs before acquiring M. Sc. (Ag.) degree, 46.5% have got job during the same year of passing B. Sc. (Ag.) examination. 36.6% have got job during the next year and the remaining 16.9% got their job only after 2 years of passing B. Sc. (Ag.) as shown below:—

Distribution of Agricultural Post-graduates who got job before acquiring M. Sc. (Ag.) degree and the year of first appointment

Highest Educational level and year of passing	No. of Post-graduates who got employment during			Total
	Same year	Next year	After 2 years	
B. Sc. (Ag.)				
Prior to 1958	13	6	6	25
1958 to 1962	28	10	5	43
1963 to 1967	3	7	3	13
1968 to 1972	2	5	2	9
1973 to 1977	1	9	1	11
Later than 1978	..	..	..	..
Total	47 (46.5%)	37 (36.6%)	17 (16.9%)	101 (100%)

It is seen from the study that 57 respondents (36.1%) got jobs after passing Post-graduate degree examination in Agriculture. It is observed that out of 57 respondents who got jobs after passing M. Sc. degree, 10.5% got their job during the same year of passing the examination, 47.4% in the next year and 42.1% after 2 years. The details are furnished below:—

Year of passing	Appointment got during			Total
	Same year	Next year	After 2 years.	
M. Sc. (Ag.)				
Prior to 1963	..	1	1	2
1963 to 1967	..	10	6	16
1968 to 1972	3	8	9	20
1973 to 1977	2	4	6	12
1973 and later	1	4	2	7
Total	6 (10.5%)	27 (47.4%)	24 (42.1%)	57 (100%)

XI. Pay structure of the Post-graduates

According to the distribution of employed Agricultural Post-graduates by monthly pay it is observed that 53.2% are within the pay range of Rs. 500 to 1,000. Employees within the pay range of Rs. 1,000 to 1,500 form 26.6% and those within the pay range of Rs. 1,500 to 2,000 comes to 19.6%. Only one Post-graduate (ie. 0.6%) is getting monthly salary of Rs. 5,000. The number of employees drawing monthly pay below Rs. 500 is nil. The details of distribution according to monthly pay of employees are furnished below:—

Monthly pay in	No. of employees	Percentage to total
Below 500	Nil	Nil
500 to 999	84	53.2
1,000 to 1,499	42	26.6
1,500 to 1,999	31	19.6
2,000 to 2,999	Nil	Nil
3,000 to 3,999	Nil	Nil
4,000 and above	1	0.6
Total	158	100.0

XII. Organisations in which the Post-graduates are employed

The Departments/Organisations in which the Post-graduates are employed, designation and scale of pay of the respondents etc., are given below:—

I. Central Government Departments :

1. *Indian Agricultural Research Institute, New Delhi.*—One respondent is employed as Scientist in the grade of Rs. 700-1300 in the Soil Science Division of this Institute. He has got 16 year's experience in Research in the field of soil fertility, evaluation and fertilizer recommendation.

2. *Central Tobacco Research Institute, Rajahmundry, Andhra Pradesh.*—Two respondents—One as Senior Training Assistant on Rs. 500-900 and the other as Farm Manager on Rs. 42-700 are employed here. Both of them have experience in field work and Research for about 6 years.

3. *All India Co-ordinated Rice Improvement Project (AICRIP), Rajendra Nagar, Hyderabad, Andhra Pradesh.*—One respondent is employed in this project as Senior Rice Agronomist on Rs. 1500-2000. He has got experience in Research work for 15 years and teaching for 3 years.

4. *Central Rice Research Institute, (CRR) Cuttack, Orissa.*—One respondent is employed on Rs. 1100-1600 as Scientist (S2) in the Crops and Soil Division of this Institute. He has got experience in field work, research and teaching for about 25 years.

5. *Central Plantation Crops Research Institute (CPCRI), Kasaragod, Kerala.*—In this Institute 5 respondents are employed as detailed below:—

1. Extension Agronomist on Rs. 1100-1600	1
2. Scientist-in-charge 700-1300	1
3. Scientist 700-1300	2
4. Scientist (S1) 650-1200	1
Total	5

They got experience in research work as follows :

Period of experience	No. of respondents
11-15 years	1
16-20 "	1
20-25 "	3
Total	5

6. *Central Tuber Crops Research Institute (CTCRI), Sreekaraiyam, Trivandrum, Kerala.*—Eight respondents are employed under this Institute as follows:—

Scientist (S2) on Rs. 1100-1600	1
Scientist (S1) on Rs. 700-1300	7
Total	8

Periods of research experience possessed by the above post-graduates are given below:—

Period of experience	No. of respondents
6-10 years	2
11-25 "	3
16-20 "	1
20-25 "	1
Above 25 "	1
Total	8

7. *Directorate of Cocoa, Arecanut and Spices Development, Calicut, Kerala.*—One respondent is employed as Director on Rs. 1300-1900 in this Directorate. He has got 17 years of experience in field work and research work.

II. Rubber Board, Kottayam :

Three respondents are employed in the Rubber Research Institute of India under the Rubber Board Kottayam as follows:—

Deputy Director of Agronomy on Rs. 1100-1600	1
Specification Officer " 700-1 00	1
Assistant Soil Chemist " 650-1200	1
Total	3

All the three personnel have experience in Research work for about 20 years.

III. Department of Agriculture, Tamil Nadu :

Two respondents are employed under the Department of Agriculture, Government of Tamil Nadu as Deputy Agricultural Officer (Marketing). One Deputy Agricultural Officer has got 10 years experience in field and research work whereas the other Deputy Agricultural Officer has got only 9 months experience. They have stated their monthly pay as Rs. 320 and 660 respectively but not mentioned anything about their scale of pay.

IV. Tamil Nadu Agricultural University, Coimbatore :

In the Tamil Nadu Agricultural University, Coimbatore one respondent is employed as Research Associate on monthly pay of Rs. 700 under the Communication Centre. He has got research experience for about 10 months only.

One more respondent is employed as Assistant Agronomist under the All India Co-ordinated Research Project on Sugarcane of the Tamil Nadu Agricultural University. He has not stated his scale of pay, but furnished only his monthly pay as Rs. 1100. He has got experience in field and research work for about 22 years.

V. University of Agricultural Science, Hebbal, Karnataka :

One respondent is employed as Assistant Professor in the Department of Chemistry and Soils under the University of Agricultural Science, Hebbal, Bangalore on a monthly pay of Rs. 1300. He possesses Ph. D. Degree in Soil Science also. He has got experience in research work and teaching for about 13 years. He has also undergone a training on Soil Science at U. K. during 1978. One more respondent is employed as Scientist (S1) at the Regional Centre, NASS & LUP under ICAR in the Agricultural University campus, Hebbal. He possesses Ph. D. degree in Soil Science. His monthly pay is Rs. 870 in the scale of Rs. 700-1300. He has got experience in field work for 5 years and research work for 4 years.

VI. Agricultural University, Andhra Pradesh :

One respondent is employed as Assistant Entomologist, Citrus Improvement Project in the S. V. Agricultural College, Thirupati on a monthly pay of Rs. 820. He has got experience in research work for 6 years and teaching for 5 years. He has not undergone any training programme.

VII. National Dairy Development Board, Anand, Gujarat :

One respondent is employed as Project Executive in the National Dairy Development Board, Anand on a monthly pay of Rs. 1100. He possesses Ph. D. Degree in Plant Pathology also. He has got experience in field work for 4 years and research work for 2 years.

VIII. State Government Departments in Kerala :

1. *Department of Agriculture.*—As stated earlier 35 respondents are employed in the Department of Agriculture in Kerala. Their designation and scale of pay are furnished below :—

<i>Designation and scale of pay</i>	<i>Number</i>	
Additional Director of Agriculture	1300-1900	1
Chief Soil Chemist	975-1625	1
Deputy Director of Agriculture	975-1625	2
Assistant Soil Chemist	750-1450	4
Research Officer	750-1450	1
Agricultural Training Officer	750-1450	1
Farm Superintendent	750-1450	1
Additional Farm Superintendent	750-1450	1
District Agricultural Officer	750-1450	1
Subject Matter Specialist	750-1450	1
Senior Planning Officer	750-1450	1
Assistant Director of Agriculture	750-1450	1
Junior Agricultural Officer (Gr. I)	700-1270	6
Junior Agricultural Officer (Gr. II)	600-1100	12
Total		35

Among the 35 respondents the Chief Soil Chemist of the Central Soil Testing Laboratory possesses Ph. D. degree in Agricultural Chemistry and Plant Nutrition.

Length of service of the above officers is furnished below :—

<i>Length of Service</i>	<i>No. of officers</i>	<i>Percentage to total</i>
Less than one year	...	...
1— 5 years	2	5.7
6—10 "	8	22.9
11—15 "	2	5.7
16—20 "	10	28.6
21—25 "	9	25.7
Above 25 "	4	11.4
Total	35	100.0

From the above it is seen that 11.4% of the officers have more than 25 years of service. The remaining 88.6% have less than 25 years of service. Only 5.7% have less than 5 years of service. The officers who have got length of service ranging from 6 to 20 years form 57.2%. All the above officers have sufficient experience in the field and extension work, office work and also in Agricultural research.

There are various types of training courses connected with agriculture conducted within India and also in foreign countries. From the reports received it is seen that 74% of the respondents have undergone any one of the training courses during their period of service. The remaining 26% have not undergone any type of training in agriculture. The details of training courses undergone by the respondents are as follows:—

Place of Training	No. of respondents undergone training
Foreign Countries	1
Japan	1
Manila	
Within India	6
New Delhi	5
Hyderabad	1
Lucknow	1
Bangalore	11
Within Kerala	
	26
No. of respondents who have not undergone any training course	9
	35

From the above it is seen that only 2 respondents have undergone training outside India—one at Tokyo (Japan) and the other at Manila. 13 respondents have undergone training in other States in India whereas 11 have undergone the training within Kerala only. Nine officers have not undergone any type of training in agriculture.

2. *Soil Conservation Department.*—Only one respondent is employed in the Soil Conservation Department as Senior Technical Assistant on Rs. 750-1450. He has got 13 years service in the Department. He has undergone training in Soil Conservation at Ootacamond and Soil Survey at Nagpur.

3. *State Planning Board.*—Two respondents are employed as Assistant Directors of Agriculture on Rs. 750-1450 in the State Planning Board. Both of them have got experience in field work, office work and research work for about 21 years. One officer has undergone training in "Micro level Planning" at Hyderabad. The other respondent has not undergone any training.

4. *Special Agricultural Development Unit (SADU).*—One respondent is working as Assistant Director of Agriculture on Rs. 750-1450 in the SADU. He has got experience in field work, office work and research for about 22 years. He has not undergone any training during the period of his service.

5. *Farm Information Bureau (FIB).*—One respondent is working in the FIB, Trivandrum as Assistant Editor on Rs. 750-1450. The respondent possesses LL. B. Degree and also Post-graduate Diploma in Journalism. The Officer has got 19 years experience in field work, office work and research work. The respondent has also undergone training at New Delhi.

6. *N. E. S. Block.*—One respondent is employed as Block Development Officer on Rs. 650-1150. He has got seven years experience in field work and office work. He has not undergone any training.

7. *District Planning.*—One respondent is working as District Planning Officer on Rs. 1125-1725. He has got experience in agricultural field work and office work for about 21 years. He has also undergone training at Hyderabad.

8. *Extension Training Centre (ETC).*—One respondent is employed as Junior Lecturer on Rs. 600-1100 in the ETC, Mannuthy. The respondent has got experience in field work and office work for 2 years, research work for 3 years and teaching for two years.

9. *Boards and Corporations.*—K.L.D. and M.M. Board—In the K.L.D. and M.M. Board one respondent is employed as Agricultural Officer on Rs. 750-1450. He has got experience in field work and office work for 8 years. He has not undergone any training during the period of his service.

10. *Kerala Agricultural University.*—Fifty nine (59) respondents are employed under different institutions and research stations under the Kerala Agricultural University. Out of the 59 Post-graduates 19 possess Ph.D. degree in Agriculture. Designation and scale of pay of the respondents are furnished below:—

	Scales of pay	No.
Director of Research	1400-1900	1
Professor	1450-2050	1
Director, Institute of Agricultural Technology, Tavanur	1125-1725	1
Associate Professor	1125-1725	24
Assistant Professor	800-1600	21
Junior Assistant Professor	600-1270	11
		59
Total		59

Details regarding length of service of the above officers are furnished below:—

<i>Length of service</i>	<i>No. of officers</i>	<i>Percentage to total</i>
Less than 1 year	1	1.7
1—5 years	8	13.5
6—10 „	4	6.8
11—15 „	13	22.1
16—20 „	15	25.4
21—25 „	16	27.1
Above 25 years	2	3.4
Total	59	100.0

This shows that only 3.4 % of the total respondents from Kerala Agricultural University have more than 25 years of service and only 1.7 % have less than 1 year service. The officers who have less than 5 years service form 15 per cent. Those who have got length of service ranging from 6 to 20 years come to 54.3 per cent.

All these officers have research as well as teaching experience.

As regards the training courses undergone, it is seen that only 49.2 % of the respondents have undergone any of the training courses in Agriculture. The remaining 50.8 per cent have not undergone any training. The details of training courses undergone by the respondents are as follows:—

<i>Place of training</i>	<i>No. of respondents undergone training</i>
Foreign Countries	1
Manila	1
Ghana	
Within India	9
New Delhi	1
Maharashtra	3
Hyderabad	1
Lucknow	1
Cuttack	3
Haryana	2
Banglore	1
Tamil Nadu	6
Within Kerala	
	29
No. of respondents who have not undergone any training	30
Total	59

This shows that 2 respondents have undergone training in Agriculture in foreign countries—One at Manila and the other in Ghana. 27 Officers have undergone training in other States in India and 6 Officers have undergone training within Kerala only. 30 Officers have not undergone any training in Agriculture.

11. *Banks.*—21 respondents are employed under different Banks as detailed below:—

	<i>Scales of pay</i>	<i>No.</i>
State Bank of India Rural Development Officer	500-1330	3
State Bank of Travancore Technical Officer (Agriculture)	500-1330	4
Central Bank of India Agricultural Finance Officer	600-1120	1
Union Bank of India Assistant Superintendent	700-1800	1
Agricultural Field Officer	700-1800	1
do.	350-800	9
Indian Overseas Bank Agricultural Officer	700-1800	1
Syndicate Bank Agricultural Project Officer	700-1800	1
Total		21

From the above it is seen that 11 respondents (i.e. 52.4 %) are employed in the Union Bank of India. The other Banks in which the respondents employed are State Bank of India, State Bank of Travancore, Central Bank of India, Indian Overseas Bank and Syndicate Bank. Length of service of the above officers in the Bank is furnished below:—

Length of service	No. of officers	Percentage to total
Less than 1 year	1	4.8
1—5 years	3	14.3
6—10 „	11	52.3
11—15 „	6	28.6
Total	21	100.0

It is seen that 52.3 per cent of the respondents have length of service ranging from 6 to 10 years. Only 4.8 per cent have service less than one year. The officers who have got service between 1 and 5 years form 14.3 per cent and those who have got length of service between 11 and 15 years come to 28.6 per cent.

From the data furnished by the respondents from Banks it is seen that 62 per cent have undergone training courses under different institutions in the country and remaining 38 per cent have not undergone any type of training. The details of training are given below:—

Place of training	No. of officers undergone the training
New Delhi	1
Bombay	3
Poona	2
Within Kerala	7
	13
No. of officers who have not undergone any training	8
Total	21

12. *Private sector.*—From the Proforma received it is found that only four respondents are employed under private institutions—one outside Kerala and the remaining 3 within Kerala as follows:—

V. H. Group of Companies, Hyderabad	1
Gundumallay Estate, Tata Finlay Ltd.	1
Private Company in Kerala	1
M. G. College, Trivandrum	1
Total	4

The respondent from the V. H. Group of Companies, Hyderabad is employed as General Manager on a monthly salary of Rs. 5,000. He possesses Ph.D. in Agricultural Chemistry also. He has got experience in General Management of manufacturing, Finance, marketing and overall control of pesticides and Animal Health Products for about 16 years. He has not undergone any training during the period of his service.

In the Gundumallay Estate, Mattupatti in Kerala one respondent is employed as Manager of the tea plantation on a monthly salary of Rs. 1,000. He has got 12 years experience in field and office work. He has not undergone any training.

In a private company at Kottayam in Kerala one respondent is employed on a monthly salary of Rs. 1820. He has not furnished his designation and office address. He has got 8 years experience in field work.

In the Mahatma Gandhi College, Trivandrum one female Post-graduate in Agriculture is employed as Lecturer in Botany on Rs. 700-1,270. She possesses Ph.D. degree also. She has got research experience for 4 years and teaching experience for 10 years. She has not undergone any training.

XIII. Present Job and Qualification

Data in respect of the present job of the respondents and their suitability to the qualifications possessed have been collected and analysed. The details are furnished below:—

	Number	Percentage to total
No. of Post-graduates whose present jobs suitable to their qualifications	127	80.4
No. of Post-graduates whose jobs are not suitable to their qualifications	31	19.6
Total	158	100.0

Out of 158 respondents employed under different Departments/Organisations 80.4 per cent have stated that their present jobs are suitable to the qualifications possessed by them. The remaining 19.6 per cent are holding jobs which are not suitable to their qualifications. It is seen from the study that 19.6 per cent of the Agricultural Post-graduates are under utilised and hence their specialisation obtained by post-graduation could not be fully utilised. Distribution of post-graduates whose specialisation not utilised properly is furnished below:—

<i>Departments/Organisations</i>	<i>No. of Agrl. post-graduates holding posts not suitable to their qualifications</i>
Central Tobacco Research Institute, Andhra Pradesh	1
Department of Agriculture, Tamil Nadu	2
Department of Agriculture, Kerala	22
Kerala Agricultural University	1
Rubber Board	1
Banks	2
Private Sector	2
	—
Total	31
	—

From the above it is seen that out of 31 Post-graduates whose specialisation is under utilised 22 (ie. 70.9 per cent) are employed under the Department of Agriculture, Kerala. They are holding posts for which the minimum qualification required is only B.Sc. (Ag). Two Post-graduates each in the Department of Agriculture, Tamil Nadu and Banks and one each in the Central Tobacco Research Institute, Andhra Pradesh, Rubber Board and Kerala Agricultural University are holding posts which are not suitable to their qualifications. In the private sector only two Agricultural Post-graduates are seen under utilised. This study shows that 19.6 per cent of the Agricultural Post-graduates employed under different Departments/Organisations are holding posts for which their specialisation could not be utilised properly. These Post-graduates are useful for research programmes in different branches of Agricultural science and also for teaching professions under the Agricultural University.

XIV. Summary and Conclusions

The study covered all Agricultural Post-graduates who passed their examinations from 1963 to 1978 from the College of Agriculture, Vellayani. The response was only 45.3 per cent. The non-response was high due to change of residential addresses and also due to adoption of mailed questionnaire method of collection of data.

The Principal results of the study are as follows:—

94.4 per cent of the respondents belong to Kerala and the remaining 5.6 per cent belong to Andhra Pradesh, Pondicherry and Tamil Nadu. 89.9 per cent of the Post-graduates reported their mother-tongue as Malayalam, 6.9 per cent Tamil and 3.2 per cent Telegu.

83 per cent of the respondents are aged below 45 years. The respondents below 35 years form 28.3 per cent. Only one respondent is above 55 years of age. The rate of attrition due to superannuation for the coming 10 year period is worked out as 1.64 per cent per annum.

This indicates that new avenues of employment have to be created for the fresh stock of Agricultural Post-graduates. Out of the total number of 159 respondents 35 possess Ph.D. degree in Agriculture. Three Post-graduates have passed the All India Examination of A.R.S. also. Among the 159 Post-graduates 17 per cent have no basic degree of B.Sc. (Ag). They possess only B.Sc. in Science subjects. Among the respondents it is seen that only 1.9 per cent have taken the subject "Agricultural Extension" for M.Sc. (Ag). Since we require more specialists in this subject for Agricultural Extension Programmes the intake for M.Sc. (Ag.) in the discipline "Agricultural Extension" may be increased to meet the demand.

The study reveals that there is no problem of unemployment among Agricultural Post-graduates in Kerala. They are employed under various Departments and Organisations within and outside Kerala. 80 per cent of the Post-graduates are employed within Kerala and 20 per cent in the States of Andhra Pradesh, Karnataka and Tamil Nadu. 97.5 per cent of the respondents are employed under Public Sector and the remaining 2.5 per cent in the private sector. There is no self employment among Agricultural Post-graduates. It is seen from the study that 37.4 per cent of the respondents are employed under the Kerala Agricultural University and 22.2 per cent in the Department of Agriculture, Government of Kerala. In the Nationalised Banks in Kerala 13.3 per cent and under Central Government Departments 12.6 per cent of the Post-graduates are employed. From the analysis of monthly pay of respondents it is observed that 53.2 per cent have their monthly pay between Rs. 500 and 1000. The employees within the pay range of Rs. 1000-2000 comes to 46.2 per cent. Only one respondent (0.6 per cent) who is employed in the private sector is drawing monthly salary of Rs. 5000.

The study shows that 80.4 per cent of the Post-graduates are having jobs suitable to their qualifications. The remaining 19.6 per cent are holding posts which are not suitable to their qualifications. They are holding posts for which the minimum qualification required is only graduation in Agriculture. Thus 19.6 per cent of the Agricultural Post-graduates are under utilised and hence their specialisation obtained by Post-graduation could not be fully utilised.

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10. Distribution of Agricultural Post-graduates by highest pre-employment educational level and year of employment.
11. Distribution of Agricultural Post-graduates by length of service.

Appendix—I—Proforma for collection of data.

TABLE 1

Intake and Out-turn of Agricultural Post-graduates

<i>Intake</i>		<i>Out-turn</i>	
<i>Year</i>	<i>Number</i>	<i>Year</i>	<i>Number</i>
1961	22	1963	21
1962	26	1964	21
1963	23	1965	23
1964	30	1966	30
1965	28	1967	30
1966	30	1968	29
1967	50	1969	49
1968	20	1970	22
1969	20	1971	19
1970	20	1972	22
1971	19	1973	17
1972	..	1974	..
1973	24	1975	17
1974	10	1976	17
1975	18	1977	13
1976	42	1978	17
1977	37	1979	53
1978	67	1980	35

TABLE 2

Details of Post-graduates responded for the study

<i>Particulars</i>	<i>No of Agri. Post-graduates</i>	<i>Percentage to total</i>
Post-graduates responded for the study	159	45.3
Post-graduates who have not responded	192	54.7
Total Number of Post-graduates to whom proforma have been distributed	351	100.0

TABLE 3

Distribution of Agricultural Post-graduates by Fathers' occupation

<i>Fathers' occupation</i>	<i>Number</i>	<i>Percentage to total</i>
Agriculture	93	58.5
Non-Agriculture	66	41.5
Total	159	100.0

TABLE 4

Marital Status of Agricultural Post-graduates

<i>Marital Status</i>	<i>No. of Agri. Post-graduates</i>	<i>Percentage to total</i>
Married	141	88.7
Unmarried	18	11.3
Total	159	100.0

TABLE 5

Distribution of Agricultural Post-graduates by Home State and present domicile

<i>State</i>	<i>No. of Post graduates</i>	<i>Home State % to total</i>	<i>No. of Post graduates</i>	<i>Present Domicile % to total</i>
Kerala	150	94.4	144	90.6
Tamil Nadu	4	2.5	3	1.9
Pondicherry	1	0.6	..	..
Karnataka	..	..	2	1.2
Andhra Pradesh	4	2.5	6	3.8
Orissa	..	..	1	0.6
Delhi	..	..	3	1.9
Total	159	100.0	159	100.0

TABLE 6

Distribution of Agricultural Post-graduates according to place of birth by District/States

<i>Districts</i>	<i>No. of Post graduates</i>	<i>Percentage to total</i>
<i>Kerala</i>		
Trivandrum	51	34.7
Quilon	19	12.9
Alleppey	21	14.3
Kottayam	20	13.6
Idukki	2	1.4
Ernakulam	12	8.2
Trichur	4	2.7
Palghat	4	2.7
Malappuram	..	..
Kozhikode	3	2.0
Cannanore	11	7.5
	147	100.0
<i>Other States in India</i>		
Tamil Nadu	5	41.7
Pondicherry	1	8.3
Andhra Pradesh	4	33.3
<i>Outside India</i>	2	16.7
	12	100.0
Total	159	

TABLE 7

Age Distribution of Agricultural Post-graduates

<i>Age Group</i>	<i>No. of Post-graduates</i>	<i>Percentage to total</i>
Below 25	Nil	Nil
25—29	20	12.6
30—34	25	15.7
35—39	39	24.5
40—44	48	30.2
45—49	17	10.7
50—54	9	5.7
55 and above	1	0.6
Total	159	100.0

TABLE 8

Distribution of Agricultural Post-graduates according to Subjects taken for M. Sc. (Ag.)

<i>Subjects</i>	<i>No. of Post-graduates</i>	<i>Percentage to total</i>
Agronomy	48	39.2
Agricultural Botany	21	13.2
Agricultural Chemistry	30	18.8
Agricultural Entomology	23	14.5
Plant Pathology	26	16.4
Agricultural Extension	3	1.9
Horticulture	3	1.9
Soil Science	5	3.1
Total	159	100.0

TABLE 9

Employment position of Agricultural Post-graduates

<i>Department/Organisation and Designation</i>	<i>Scale of pay Rs.</i>	<i>No. of Post-graduates employed</i>
(1)	(2)	(3)
Central Government Departments		
Indian Agricultural Research Institute, New Delhi Scientist (S1)	700—1300	1
Central Tobacco Research Institute, Andhra Pradesh Senior Training Officer	550— 900	1
	425— 700	1
All India Co-ordinated Rice Improvement Project, Andhra Pradesh Senior Rice Agronomist	1500—2000	1
Central Rice Research Institute, Cuttack, Orissa Scientist (S2)	1100—1600	1

(1)	(2)	(3)
Central Tuber Crops Research Institute, Sreekaryam, Kerala		
Scientist (S2)	1100—1600	1
Scientist (S1)	700—1300	7
Central Plantation Crops Research Institute, Kasaragod, Kerala		
Extension Agronomist	1100—1600	1
Scientist in charge	700—1300	1
Scientist (S1)	700—1300	2
Assistant Agronomist	650—1250	1
Directorate of Cocoa, Arecanut and Spices Development, Calicut, Kerala		
Director	1300—1700	1
Rubber Board, Kottayam		
Deputy Director, Agronomy	1100—1600	1
Specification Officer	700—1300	1
Assistant Soil Chemist	650—1200	1
Department of Agriculture, Tamil Nadu		
Deputy Agricultural Officer (Marketing)	820	1
Do.	660	1
Tamil Nadu Agricultural University, Coimbatore		
Research Associate	700	1
Assistant Agronomist (Sugarcane)	1400	1
University of Agricultural Science, Hebbal, Karnataka		
Assistant Professor of Soil Science	1300	1
Scientist (S1)	700—1300	1
S. V. Agricultural College, Tirupati, Andhra Pradesh		
Assistant Entomologist	820	1
National Dairy Development Board, Anand, Gujarat		
Project Executive	1100—1600	1
State Government Departments within Kerala		
Department of Agriculture		
Additional Director of Agriculture	1300—1900	1
Chief Soil Chemist	975—1625	1
Deputy Director of Agriculture	975—1625	1
Assistant Soil Chemist	750—1450	4
Research Officer	750—1450	1
Agricultural Training Officer	750—1450	1
Farm Superintendent	750—1450	1
Additional Farm Superintendent	750—1450	1
District Agricultural Officer	750—1450	1
Subject Matter Specialist	750—1450	1
Senior Planning Officer	750—1450	2
Assistant Director of Agriculture	750—1450	6
Junior Agricultural Officer (Grade I)	700—1270	6
Junior Agricultural Officer (Grade II)	600—1100	12
Soil Conservation Department		
Senior Technical Assistant	750—1450	1
Kerala State Planning Board, Trivandrum		
Assistant Director of Agriculture	750—1450	2
Special Agricultural Development Unit (SADU), Trivandrum		
Assistant Director of Agriculture	750—1450	1
Farm Information Bureau, Trivandrum		
Assistant Editor	750—1450	1
N. E. S. Block		
Block Development Officer	650—1150	1
District Planning		
District Planning Officer	1125—1725	1
Extension Training Centre		
Lecturer	600—1100	1
Kerala Livestock Development and Milk Marketing Board, Trivandrum		
Agricultural Officer	750—1450	1

(1)	(2)	(3)
Kerala Agricultural University		
Director of Research	1400—1900	1
Professor	1450—2050	1
Institute of Agricultural Technology, Tavanur		
Director	1125—1725	1
Associate Professor	1125—1725	24
Assistant Professor	800—1600	21
Junior Assistant Professor	600—1270	11
Banks		
State Bank of India		
Rural Development Officer	500—1330	3
State Bank of Travancore		
Technical Officer (Agriculture)	500—1330	4
Central Bank of India		
Agricultural Finance Officer	600—1120	1
Union Bank of India		
Assistant Superintendent	700—1800	1
Agricultural Field Officer	700—1800	1
Agricultural Field Officer	350—800	9
Indian Overseas Bank		
Agricultural Officer	700—1800	1
Syndicate Bank		
Agricultural Project Officer	700—1800	1
Private Sector		
V. H. Group of Companies, Hyderabad		
General Manager	5000	1
Gundumally Estate, Mattupatty, Kerala		
Manager	1000	1
Private Company, Kerala		
Manager	1050	1
M. G. College, Trivandrum		
Lecturer in Botany	700—1270	1
	Total	158

TABLE 10

Distribution of Agricultural Post-graduate by highest Pre-employment Educational Level and the year of first appointment

Highest Pre-employment educational level and year of first appointment	No. of Post-graduates who got first employment during				Percentage to total
	Same year	Next year	After 2 years	Total	
B. Sc. (Agriculture)					
Year of passing					
(a) Prior to 1958	13	6	6	25	24.8
(b) 1958 to 1962	28	10	5	43	42.6
(c) 1963 to 1967	3	7	3	13	12.9
(d) 1968 to 1972	2	5	2	9	8.9
(e) 1973 to 1977	1	9	1	11	10.8
(f) Later than 1977	..	..	..	..	..
Sub Total	47 (46.5%)	37 (36.6%)	17 (16.9%)	101 (100%)	100.0
M. Sc. (Agriculture)					
Year of passing					
(a) Prior to 1963	..	1	1	2	3.5
(b) 1963 to 1967	..	10	6	16	28.1
(c) 1968 to 1972	3	8	9	20	35.1
(d) 1973 to 1977	2	4	6	12	21.1
(e) Later than 1977	1	4	2	7	12.2
Sub Total	6 (10.5%)	27 (47.4%)	24 (42.1%)	57 (100%)	100.0
Grand Total	53 (33.6%)	64 (40.5%)	41 (25.9%)	158 (100%)	

TABLE 11

Distribution of Agricultural Post-graduates by length of service

Length of Service	No. of Agricultural Post-graduates	Percentage to total
Less than one year	4	2.5
1 to 5 years	15	9.5
6 to 10 years	34	21.5
11 to 15 years	29	18.4
16 to 20 years	34	21.5
21 to 25 years	34	21.5
Over 25 years	8	5.1
Total	158	100.0

APPENDIX I

DIRECTORATE OF AGRICULTURE—MANPOWER UNIT
Study of utilisation on Agricultural Post-graduates in Kerala

Pro forma

1. Name ..
2. Address ..
3. Date of birth ..
4. Place of birth ..
5. Sex .. Male/Female
6. Marital status .. Married/Unmarried
7. Whether you belong to Scheduled Caste/
Scheduled Tribe/Backward Class? ..
8. Home State ..
9. Present domicile ..
10. Mother tongue ..
11. Languages which you can read, write and
speak ..
12. Father's occupation .. Agriculture/Non-Agriculture
13. Educational qualifications:

<i>Course of study</i>	<i>Subject</i>	<i>Name of College/ Institution</i>	<i>Name of University</i>	<i>Year of passing</i>	<i>Class/Division</i>
Intermediate/ Pre-degree					
B. A.					
B. Sc.					
B. Sc. (Ag.)					
M. Sc. (Ag.)					
Ph. D.					
14. Additional qualification, if any		..			
15. If undergoing any study at present please furnish details such as name of course, name of institution, duration of course, etc.		..			
16. Employment					
(a) (i) Whether employed/unemployed		..			
(ii) If unemployed at present and seeking job, since when have you been un- employed?		..			
(iii) Have you been employed previously?		..	Ye./No		
(iv) If yes, give details of such employ- ment and reason for termination		..			
(b) (i) If employed at present, state whether in Govt. service or else- where (specify)		..			
(ii) Date of entry in service		..			
(iii) Designation and office address		..			
(iv) Present scale of pay		..			
(v) Present monthly salary		..	Pay	Rs.	
			D. A.	Rs.	
			H. R. A.	Rs.	
			Other allowances, if any	Rs.	
			Total	Rs.	

(vi) State whether the present posting is according to the qualifications possessed by you ..

17. Total length of service ..

18. Experience:

<i>Type of job</i>	<i>No. of years</i>
(i) Field work	
(ii) Office work	
(iii) Research work	
(iv) Teaching	

19. Details of training courses undergone:

<i>Course of study</i>	<i>Subject</i>	<i>Period of training</i>	<i>Name of Institution</i>	<i>Year of training</i>	<i>Diploma/Certificate received, if any</i>

20. Give a short description of the present job ...

Place :

Signature

Date :

2

**EMPLOYMENT PROSPECTS FOR NON TECHNICAL
LESS QUALIFIED MANPOWER IN KERALA**

P. C. JAIN

1. Introduction

Unemployment continues to be the biggest challenge facing Kerala in spite of planned efforts for three decades to solve the problem. Although it cannot be denied that new employment opportunities have been created, the programmes aimed at alleviating unemployment do not seem to have made a dent into the issue. Still the complicated question is how to initiate self-duplicating economic growth which can provide gainful employment to the massive and ever-increasing reserve of unemployed and under-employed manpower of the State.

2. Objectives

The main objectives of this paper are the following :

1. To examine the main problems of unemployment in the State;
2. to examine the pattern of unemployment among non-technical less qualified manpower in the State;
3. to examine the experiences of self-employment programmes implemented in the State;
4. to evaluate the role of institutional finance in self-employment programmes; and
5. to enquire on possibilities of self-employment programmes for non-technical less qualified manpower in the State.

3. Problems of unemployment

Educated unemployment is the major threat facing this land of high literacy¹. In August 1982 there were 18.95 lakhs job seekers on the Live Register of Employment Exchanges in Kerala. The number of educated registrants (Matriculates and above) came to 9.45 Lakhs, i. e. about 50% of total job seekers. The exorbitant growth of registrants with employment exchanges during the period 1970-81² is a pointer to the alarming magnitudes to which the problem has grown in the State. General unemployment increased nearly by 550% and that of educated unemployment by 420% over the period. Unemployment of less qualified category (matriculates, intermediates and graduates in arts) increased more than 750% while that of professional and technically qualified one's by about 230%³. But the number of Engineering, Veterinary and Agricultural Graduate registrants has been steadily declining, suggesting increased employment opportunities for them.

The 'Housing and Employment Survey 1980' conducted by the State Economics and Statistics Department again ascertained the magnitude of unemployment. In this survey employment seekers were defined as "those persons between the age group of 15-60 who were not able to secure job even for a day during the previous year and are actively searching for a job", and thus the estimates are only indicators of a minimum level of unemployment. According to this survey 14.02 Lakhs persons i.e. 18% of labour force, were found chronically unemployed. The Survey revealed the regional imbalance in employment and unemployment in the State. Compared to 'Malabar Area', the Northern Districts, unemployment is more acute in 'Travancore Area' i.e. the Southern Districts. Among districts, the problem of unemployment is worse in Quilon District and least in the hilly district of Idikki⁴. Evidently the problem is more severe in urban areas than in rural Kerala as 21.59% of urban labour force was unemployed while 17.46% of rural labour force was without jobs. This 'urban concentration' may be due to better educational facilities in urban centres and migration of job seekers from rural areas⁵. Moreover the survey again established the positive correlation between literacy and levels of unemployment⁶.

A study on the characteristics of unemployed post graduates in Kerala—1979' conducted by Economics and Statistics Department enquired about the problems of unemployment among the highly qualified category in the State. 44% of Post Graduates were forced to remain unemployed and that too indefinitely for a long period. 72% of the employed ones took their masters degree before 1970. 35% of unemployed post graduates had additional qualifications like B.Ed., M.Ed., M.Phil. etc., obtained on compulsions of unemployment and reluctance to remain idle. The plight of Post-graduates is quite revealing. There is wide gap between jobs available and the number of people chasing them. Additional qualifications are of decreasing attraction in the employment market. Thus very valuable human resources are foolishly depreciated through underuse or misuse. To add fuel to the fire an increasing number of workers to day want satisfying work rather than just jobs, so do the number who want a carrier rather than just a series of jobs.

The paradox of educated unemployment illustrates the inability to use educated and trained manpower fully when we want many more educated and trained people with skill, ability capacity, competence and expertise to produce more and more badly needed goods and services. This brings us to the riddle of making the unused and underutilised manpower economically regenerative in the growth context of Kerala economy.

1. According to the provisional estimate of 1981 census Kerala Literacy is 69.17%
2. Table 3.1 of Appendix gives distribution of work seekers by educational levels for the period 1970-81.
3. Table 3.2 of Appendix gives distribution of professional and technical job seekers over the period 1970-81.
4. Table 3.3 of Appendix gives districtwise distribution of labour force and employment seekers in Kerala.
5. Table 3.4 of Appendix gives the rural urban spread of labour force and employment seekers of districts of Kerala.
6. Table 3.5 of Appendix gives proportion of employment seekers and literacy levels of the districts of Kerala.

To pin point, the main problems of unemployment in Kerala are :

1. abnormal and unchecked rise in educated unemployment and its positive correlation with increasing literacy ;
2. the existence of an 'unemployment—high qualification' vicious circle and its perpetuation ;
3. the urban concentration of unemployment ;
4. rising trend of unemployment among technically qualified manpower ;
5. the paradox of unemployment among skilled manpower and dearth of skilled ones in consumer goods industry ;
6. high job-realisation lag and over optimal job—expectation ; and
7. decreasing trend of employment absorption in organised services sector and increasing need for production based self employment schemes.

4. Pattern of unemployment among Non-technical Less-qualified Manpower

In this paper non-technical less qualified manpower (hereafter referred to as N. L. M. P.) includes Matriculates, Intermediates and Graduates in Arts Subjects. The out-turn of N. L. M. P. during the last 25 years, from the educational institutions of Kerala alone, comes to 41.37 lakhs comprising of 33.57 lakhs Matriculates, 6.13 lakhs Intermediates and 1.67 lakhs Graduates in Arts⁷. Growth in overall supply of N.L.M.P. over the plan periods, commencing from 2nd F. Y. P. had been tremendous⁸. Supply was maximum in the period 1979-80 and 1980-81, the beginning of 6th Plan. With the exception of Annual plan period, 1967-69, the supply of matriculates had been increasing almost steadily up to the end of Fourth Plan. But fifth plan period supply of matriculates had been more than double that of 4th plan and their supply again arose more than double of the fifth plan position in the period of 1979-81. The supply of intermediates had been steeply rising over the plan periods and showed a decline in the beginning of the 6th Plan. A decreasing trend in the supply of Graduates in Arts could be noticed up to the end of fifth Plan. But a rising phase in supply is seen in the beginning of 6th plan. Thus unmanageable rise in N.L.M.P. has been mainly due to the overinflux of matriculates during the last twenty five years. The Supply growth Index⁹ of N.L.M.P. reveals the speed with which this manpower category swelled the rank of unemployed in Kerala. Based on 2nd plan position, the supply growth Index reached 1646 in 1981, registering sixteen times growth in the supply of this manpower category. The rise in supply after the end of fifth plan was so remarkable.

Employment Exchange Registration data is used to examine growth of unemployment among N.L.M.P.¹⁰. In 1980-81 N.L.M.P. on the Live Register of Employment Exchanges in Kerala stood at 8.86 lakhs constituting about 96% of the educated unemployed and 47% of total job seekers. It is evident that educated unemployment in the State is really the joblessness of N.L.M.P. Reviewing the growth of unemployment of N.L.M.P. over the plan periods¹¹ their proportion to the total unemployed had almost been 50% unemployment growth Index of N.L.M.P.¹², reached 1:75 registering more than 14 times increase in 1980-81, compared to the 2nd plan situation. A positive correlation between the rising supply and unemployment indices indicates less of employment absorption from N.L.M.P. category. This inverse relationship between their supply and demand press for effective adjustments, on either side, to re-establish the balance. As adjustments on the supply side is a long delayed process involving much policy complications, demand push becomes the only shortcut to retain the balance. Purposive 'demand creation' is the only way to bring N.L.M.P. to the employment stream. But the demand for N.L.M.P. in the services sector has been declining over the years aggravating the problem of unemployment.

Employment in organised public and private sectors has been declining as shown, again, by Employment Exchange figure. General employment growth and employment variation for NLMP¹³ for the period 1961-62 to 1980-81 testify to this declining trend in the job market. Total employment stood at 10.33 lakhs consisting 5 lakhs in public sector and 5.33 lakhs in private sector. Private employment has been high at 52% of total employment. Employment of NLMP. came to 4.14 lakhs comprising 2.29 lakhs in private sector and 1.85 lakhs in public sector. The Employment participation of NLMP. came to only 40 per cent showing lesser job prospects for this less qualified manpower. Absorption of NLMP. in the private sector has been maximum, which came to 85 per cent of total employment. Growth of employment opportunities over the plan period commencing from the 3rd plan¹⁴ reveals the ineffectiveness of planned development in employment Generation. Based on 3rd Plan position general employment Index hardly rose to 146 and that of NLMP to 155 at the beginning of 6th Plan. The Comparative participation of NLMP. in job market had been declining from the onset of 4th plan.

⁷. Table 4.1 of Appendix gives out-turn of N.L.M.P. during 1956-57 to 1980-81 from the educational institutions in Kerala.

⁸. Table 4.2. of Appendix gives supply of N.L.M.P. over the plan periods commencing from 2nd F.Y.P.

⁹. Table 4.3 of Appendix gives the supply growth Index of N.L.M.P. during 1956-57 to 1980-81.

¹⁰. Table 4.4 of Appendix gives N.L.M.P. registered with the Employment Exchanges in Kerala during 1950-57 to 1980-81.

¹¹. Table 4.5 of Appendix gives growth of unemployment of N.L.M.P. over the plan period.

¹². Table 4.6 of Appendix gives unemployment growth Index of N.L.M.P. during 1956-57 to 1980-81.

¹³. Table 4.7 of Appendix gives general and NLMP Employment position in public and private sectors during the period 1961-62 to 1980-81.

¹⁴. Table 4.8 of Appendix gives growth of employment for NLMP. over the plans commencing from 3rd Plan

Eventhough prospects of Government job declined substantially, the rush to get a Government job has increased unproportionately. An analysis of staff details given in Kerala Government Budget reveals the declining phase of employment in Government¹⁵. Employment opportunities for NLMP. category are very bleak in the Government sector. Employment in State Government departments, showed, though of lesser proportions, an increasing trend up to 81-82. But the estimates for 1982-83 shows a fall in total employment indicating the declining phase of employment in the Government sector. This downward trend, specifically in the case of class III post, which constitutes 87 per cent of total employment, and which is the 'principal employment area' of NLMP. warrant the need for alternative employment opportunities for the less qualified. Thus employment prospect in State Government departments is very shallow in general and for the NLMP. in particular.

The main conclusions of above analysis are the following :

- (1) NLMP. comprising matriculates, Intermediates and Graduates in Arts constitutes 96 per cent of Educated unemployed in Kerala.
- (2) There has been sixteen fold increase in the Supply of NLMP. over the last 25 years, while its demand declined steadily over the same period.
- (3) Unemployment of NLMP. has been aggravated due to less of employment absorption from this category.
- (4) Employment of NLMP. in organised sector continued to be low though the private sector absorbed majority of this category.
- (5) Self-employment programme appropriate for the NLMP group is the only alternative to extend them employment.
- (6) The declining phase of employment in State Government departments makes Government job a distant dream for NLMP.

5. Experiences of Self-employment Programmes

In general, self-employment represents employment of last resort, alternatives which reflect limited opportunities in a preferred wage earning capacity. Self-employment schemes in consonance with the developmental thrust and tone of planned development have been implemented in the State from time to time and its experience reveal a disquieting picture.

(a) Half a Million job Programme

Half a Million job programme was an employment generation scheme for the educated unemployed sponsored by the Government of India in 1971. The schemes were to be formulated by States in accordance with certain principles and guidelines issued by the planning commission. The main guidelines include the following :

- (1) Selection of quick yielding viable schemes.
- (2) Employment priority for Engineers and Technologists.
- (3) Yearly employment absorption of 20 per cent of educated unemployed.
- (4) Generation of productive jobs leading to creation of durable assets, and
- (5) Maximum mobilisation of institutional finance and minimum use of govt. finance.

The Schemes were classified into three category viz. (1) Self-employment schemes, (2) Training schemes and (3) Employment Incentive schemes. Review of certain projects under the above schemes would be illuminating.

'Kerala Employment Promotion Corporation' (KEPCO), now known as 'Small Industries Development and Employment corporation' (SIDEKO) was a fully owned Government company started in 1974 with a view to assist prospective entrepreneurs in obtaining consultancy services and institutional finance and also to enable utilisation of central assistance. Government had transferred Rs. 140.45 lakhs to KEPCO. as Government's contribution to share capital for implementation of 13 self-employment schemes with a total outlay of Rs. 145.04 lakhs. KEPCO extended financial assistance to 70 units in the state. But the resources proposed to be raised by the beneficiary units did not materialise. Only 20 units could raise some share capital. KEPCO could not raise any institutional finance though this was one of the principal objectives in forming the corporation. 5 Industrial Co-operative Societies assisted by KEPCO also could not mobilise any institutional finance and projects have been financed mainly by Government funds. Thus Planning Commission's aim of mobilising institutional finance for employment generating schemes has been defeated by these agencies. 70 units assisted by KEPCO could generate employment only to 1158 persons as against the anticipated employment for 3824 persons. In short, the employment achievement of KEPCO. schemes came only to 3 per cent of the expected.

'The Kerala State Engineering Technicians (workshop) Industrial co-operative society Ltd. Trivandrum.' (ENCOS) is another agency implementing self employment schemes. Two of its projects, viz (1) Scooter project and 2 pre-fabricated Housing Scheme, were complete failure from the employment generation angle. This Society also did not utilise any institutional finance. Out of Rs. 71.37 lakhs given to ENCOS in 1975 Rs. 24.37 lakhs only have been utilised in projects approved by planning commission and the balance amount had gone to other unapproved channels, of misutilisation. This society could employ 510 persons after spending a huge sum.

¹⁵ Table 4.9 of Appendix gives growth of employees in State Government departments in Kerala during 1960-61 to 1982-83.

Similarly the Kerala Capacitors Engineering Technicians Industrial Co-operative Society, Adoor, Quilon district, expended Rs. 7.20 lakhs and, could extend employment to none. The Palghat District Engineers' and Technicians' Industrial Co-operative Society Ltd. (PENCOS) obtained Rs. 17.75 lakhs to produce sewing Machines and give employment to 300 persons. But no sewing Machine came out of the unit and only 139 persons were temporarily employed. 6 'Taxi Drivers Co-operative Societies' in the State wasted Rs. 3.60 lakhs to employ 69 temporary hands and these societies have expressed their dissentment in functioning owing to increase in the cost of cars and petrol. 'Self-Employment in Auto Rickshaw Driving' another Scheme implemented by 'Kerala State Development Corporation for SC/STs, spent Rs. 10.80 lakhs to train 164 persons in Auto driving and to supply Autorickshaws' to 14 persons on hire purchase basis. 'The Rural Dispensary Scheme' implemented directly by Government expected to open 250 rural dispensaries extending employment to 1200 persons. 247 dispensaries were reported to have opened expending Rs. 30.08 lakhs.

Forty one Training Schemes—23 schemes to train candidates for Government employment and 18 schemes for private employment having an employment potential of 17162 persons, have been implemented in the state spending Rs. 170.65 lakhs. Of the 11086 persons trained, under this scheme, only 4557 persons could be employed. The scheme for 'Land Occupation Survey' envisaged training and employment of 7120 'Land Verification Volunteers' to collect basic data vital for implementing land reforms in the state. Rs. 43.38 lakhs was spent to train 3407 persons and none could be absorbed in Government service as no provision was made in the state budget for creating posts against which the trained volunteers were to be absorbed. Another Scheme for creation of 4 Survey Parties was implemented by the Survey and Land Records Department to speed up resurvey and extend employment to 1000 educated unemployed. Rs. 6.20 lakhs was spent to train 286 persons and employ 69 of them. A job oriented scheme for training educated unemployed in selected workshops and trades to enable them to set up small scale enterprises was first implemented in the state in 1972 under 'Special Employment Programme'. 608 persons were trained spending Rs. 1.49 lakhs, but nobody was employed. Another Rs. 10.84 lakhs was spent to train 749 ITI holders of whom 27 started self employment ventures.

'The Employment Incentive Scheme' was a programme of imparting training to Engineers, Diploma holders, Science Graduates etc. in small scale and medium scale private industrial units and Co-operatives with a view to their eventual employment in these units. This scheme intended to generate employment to 3165 persons incurring an expenditure of Rs. 32.91 lakhs. But Rs. 35.80 lakhs was incurred to implement this scheme through 3093 Industrial units in the State 56828 persons joined for training of which 5194 trainees dropped out during the course of training and no units absorbed any of the trainees.

Thus the 'Half a Million Job Programme'¹⁶, a major self employment scheme, has been a failure in Kerala. The 21st report of 'Public Accounts Committee' expressed its grave concern in the failure of the scheme and said "the committee are disatisfied to note that eventhough more than Rs. 4 crores were spent from the public exchequer the objective of giving employment to 45000 persons was not at all fulfilled". 23% of the allotted fund for Half a Million Job Programme had been lapsed. Rs. 415.87 lakhs was spent under the scheme to employ 7004 persons. It is diplorable that expending 76 per cent of total out lay 21 per cent of employment target could only be achieved.

(b) *Trysem*

(Training of Rural Youth for Self employment).

Government of India introduced a national scheme for Training of Rural Youth for Self employment in July 1979. The main thrust of the scheme is equipping rural youth with necessary skill and technology to enable them to seek self employment. Persons between the age group of 18 and 35 belonging to marginal and small farmer's families, Agricultural labourers, rural artisans and others below poverty line were covered under the scheme. The objective was to train at least 2 lakhs rural youth every year i.e. a minimum of 40 youth in every Block in the country. The scheme envisaged organisational and occupational linkages with other institutions so that supporting services like credit, marketing, supply of raw materials, design and development etc. are also provided to the trainees in time.

Kerala implemented Trysem in 1979 as a part of IRDP. The main schemes undertaken in the state are—

1. General Engineering
2. Printing, Composing and Proof reading
3. Radio repairing
4. Electric wiring.
5. Cane and Bamboo works
6. Furniture making
7. Manufacture of Aluminium goods
8. Tailoring and garment making
9. Welding
10. Photography
11. Carpentry
12. Bakery
13. Coir mat and mattings
14. Pottery making
15. Watch repairing
16. Book Binding and
17. Wetted Fabrics.

¹⁶ Table 5.1 of Appendix gives details of targeted out lay, employment potential and achievement of Half Million Job Programme in Kerala.

TRYSEM speaks for yet another story of the failure of self employment schemes in the state". During 1979-80 achievement in respect of training was too low at 30 per cent. In 1980-81 training achievement came only to 29 per cent of the target. In 1981-82 achievement still declined to 20 per cent of the proposed target. Total achievement for the three years stood at 17 per cent of the expected. Training programme itself fell short of target dissipating the hope of self employment of the trained. The failure has been due to ineffective implementation of the programme. Of the trained only an insignificant number could be invoked for self employment. During 1981-82 only 15 per cent of the trained ones entered the field of self employment¹⁸. No trained Youth could start self employment schemes in the Districts of Ernakulam, Trichur and Wynad. But 97 per cent of the trained youth of Malapuram District entered self employment ventures. Self employment participation of rural youth trained in the districts of Trivandrum, Alleppey, Idukki and Palghat was very meagre.

(c) *Self employment in small scale Industries*

Small Scale Industries started in Kerala as part of self employment schemes, have pulled down the shutters before taking off. The technical entrepreneurs are engineers and diploma holders. Such persons may or may not have experience in the line chosen for the setting up of the unit. Usually most of the technical entrepreneurs are motivated by advertisements appearing in papers and are fresh college graduates who have very little knowledge of the working of various Government departments which promise them assistance in setting up their units. Students coming out of colleges feel that setting up an Industry is a real challenge and when they see advertisements announcing aid like subsidised interest, cheap land, subsidised power, consultancy availability, ready made sheds, promises of marketing and assistance for selling finished goods etc. they feel that this is the right area for them. The entrepreneurs have good intentions and great plans and work hard in the beginning. Many energetic entrepreneurs want to develop all on a sudden and this rush for growth ends up in frustration and subsequent sickness. Industrial backwardness are may in Kerala. The environment, the banks, the procedures, the multiple licencing system, the departmental delays, Competition, lack of planning, lack of managerial ability, lack of industrial potential data system, lack of consultancy services, inadequate working capital, inexperience of entrepreneurs in handling financial matters, wrong working policy, lack of co-ordination, high cost of land and improvement expenses, implementation delays, instalation of costly machines and high cost of depreciation, Government inability to bear pre-operative financial commitment of entrepreneurs, delays in legal formalities, disbursement of loan, getting power sanction and connection, S.S.I. registration, sales tax registration, excise licence, additional transportation expenses due to bad location of units etc. are some of the reasons stated for industrial stagnation in Kerala. Project reports prepared by Government agencies are "illusory" as it inflates the profit side to make it a viable project. By certain changes in selling price and capacity utilisation figures the project become economically viable on paper. Moreover appraising officers in financial institutions lack any practical experience and are clearly duped by 'illusory project reports'. There is no proper refinancing of small scale Industries and thus arises a liquidity crises for the concerns.

The small scale Industries do not survive but they fall sick. But the official tool of employment generation is the cottage and small scale industries. The 6th Five Year Plan gives priority to labour intensive technology processes and programmes with higher employment potential and lays emphasis on self employment schemes in agriculture, village and small scale industries and allied activities in non-farm occupations.

Experiences of self employment programmes implemented in the state can be summarised as follows:

- (1) Self employment is considered as employment of last resort in Kerala.
- (2) Guidelines on self employment schemes specified by Planning Commission have not been adhered to by the implementing agencies.
- (3) The schemes were implemented in a haphazard manner wasting huge sums of public money and defeating the employment aims of the projects.
- (4) Misutilisation of funds meant for self employment schemes occurred at least in certain cases.
- (5) Training schemes made only little impact on employment generation and hence did not get enough public Co-operation, and
- (6) Self employment ventures, in the Small Scale Industrial Sector faced untimely sickness due to various reasons and ended up in frustration of energetic entrepreneurs.

6. **Role of Institutional Finance in Employment Generation**

Institutional finance was expected to play a vital role in self employment schemes and that way mitigating the problem of unemployment in the State. Financial institutions in Kerala assisted mainly Doctors, Engineers and other technically qualified persons in initiating self employment projects. A review of the flow of institutional finance for self employment schemes for the period 1977-81¹⁹ is interesting in this context. In 1981 there were 110233 borrowal accounts in Kerala who were recipients of Institutional finance for self employment schemes. The number came to 14 per cent of the all India total. They utilised an amount of Rs. 1824 lakhs constituting 11 per cent of total funds mobilised in India. A comparative study of borrowal accounts and finance released of Institutional finance in India and Kerala reveals that there has been steady increase in the percentage share of fund released in Kerala while the percentage of borrowal accounts has been widely fluctuating. It is evident that Institutional finance played only a limited role in self employment schemes in the state. Aid has

¹⁷ Table 5.2 of Appendix gives District-wise target and achievement of Trysem programme in Kerala during 1979-80 to 1981-82.

¹⁸ Table 5.3 of Appendix gives district-wise details of self employment of trained-youth during 1981-82.

¹⁹ Table 6.1 of Appendix gives flow of institutional finance for self employment Schemes in Kerala and India during 1977-81.

been limited to a very special circle of entrepreneurs and completely left out the non-technical and less qualified employment seekers. But dearth of finance formed the principal cause of premature death of self-employment ventures in the State. Financial Institutions are unwilling to undertake risk to experiment in employment generation. Kerala State Financial Corporation is the main financing agency in the State. Many self employment schemes are covered under their Scheme. But a detailed examination of the procedure and practices followed in financing project shows that the corporation is concerned more on profitability of the schemes financed. Procedural delays and formalities are much with the corporation. The recent recovery steps taken by the corporation brought to light the startling instances of fraud and misutilisation of funds by entrepreneurs. Moreover the 'bigups' were found to be the main beneficiaries of corporations aid and the small entrepreneurs who got financial assistance came to only a small number.

But the allocation of bank credit to Small Scale Industrial Units in Kerala has been impressive. Outstanding bank loans to small industrial units in Kerala in 1979 amounted to Rs. 122.75 crores constituting 16.9% of total outstanding bank credit for industrial purposes in the State and 5.4% of total bank advances under this account in the country¹⁰. Helping Small Scale Industries has been, in a way, contributing to employment generation in the state. But the present trend of bank financing is discouraging. Bank advance for Small Scale Industries has been highest in the district of Quilon and lowest in the district of Idukki during the period 1973-79¹¹. But the employment generation of all these industries has been very little.

Thus in general institutional finance is insignificant in employment generating schemes in Kerala but can play increasing important role.

7. Employment Prospects for Non-technical less qualified manpower

As seen above, NLMP constitutes 96% of educated unemployed in the state. Their annual growth is beyond all proportions of available employment opportunities. The decreasing trend of employment in organised public and private sectors aggravates the problem of unemployment of NLMP. Unemployment does is to permanent remedy for the menace. The limited opportunities of employment for NLMP in government departments and other organised sectors leaves self employment as the only alternative to make them economically regenerative.

Self employment programmes, viable and appropriate for NLMP group have to be undertaken. The dim and discouraging experiences of self employment schemes implemented in the state sounds a special note in this context. Public patronage of goods produced in small scale sector, as part of self employment programme, is seldom promising. Stiff competition from established products too eclipse the products from consumer market. Thus Small Scale Industrial products do not get enough popularity to convey the message of self employment. The NLMP group can be made use of in this area of popularising the products of Small Scale Industrial establishments. The 'self employment message' of the products should be highlighted to obtain public sympathy. A door to door canvassing by commission agents from NLMP—category can create 'sympathetic and purposive' demand for the products to move the chain of industrial expansion and employment generation. Governmental assistance can stimulate this 'demand creation-cum-employment generation campaign'. In the event of industrial expansion these commission agents can be absorbed in different units. In other words, employment prospects for NLMP category, in the State, are limited to supporting services of Small Scale Industrial enterprises. In the creation of industrial infrastructure the NLMP category can be effectively utilised. The white collar preference for jobs have to be shed by them in the wake of limited opportunities. Self employment schemes in transport and trade are right areas for the NLMP group.

8. Summary and conclusion

Educated unemployment is the major problem facing Kerala, the land of high literacy. The NLMP category forms 96% of the educated unemployed in the State. The supply of NLMP increased more than 16 times over the last 25 years. Employment opportunities in general and for NLMP in particular, increased only marginally. The huge back log and low employment absorption made unemployment a perennial problem for NLMP in Kerala. Employment opportunities in the organised sectors have been limited and increasing insignificantly in relation to the multitudinous influx of NLMP category. Self employment schemes did not succeed in Kerala due to various reasons. Paradoxically self employment programmes are the only way out to make the NLMP economically regenerative. Self employment in transport and trade and supporting services to the small scale manufacturing sector can be set in motion the chain of employment creation for NLMP category in the State. The long run measure of controlling the overflow of NLMP category to the job market can be simultaneously experimented. This "supply control" may need radical changes in the educational policy of the country.

¹⁰ Table 6.2 of Appendix gives outstanding advances of commercial banks for small scale industry in India and Kerala for the period 1978-79.

¹¹ Table 6.3 of Appendix gives district-wise outstanding advances to small scale industry by commercial banks in Kerala.

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TABLE 3.1

Distribution of work seekers in Kerala by education levels for the period, 1970-81

Period Ending	Total work seekers	Below S.S.L.C.	Percentage to total work seekers	S.S.L.C.	Pre-degree	Graduate	Post-graduate	S.S.L.C. and above	Percentage to total work seekers
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
31-12-1970	293754	115504	39.25	151279	74.69	17703	1994	178450	60.75
31-12-1971	367381	166305	45.27	167814	10168	20841	2223	201076	54.73
31-12-1972	453914	194848	42.93	218880	16457	20396	3333	259066	57.07
31-12-1973	523882	239921	45.80	226783	18965	34327	4156	283961	54.20
31-12-1974	587935	274620	46.80	252423	20075	36947	3870	313315	53.20
31-12-1975	691242	331628	47.98	281989	28329	44456	4840	359614	52.02
31-12-1976	753579	344461	45.71	315552	38176	49749	5641	409118	54.29
31-12-1977	849378	391954	46.13	351211	46830	53037	6346	457424	53.85
31-12-1978	1062652	494935	47.02	434192	56641	57816	9068	557717	52.98
31-12-1979	1249372	582088	46.59	524631	69721	64365	8567	667284	53.41
31-12-1980	1843290	1045874	56.74	643758	78432	67006	8220	797416	43.26
31-12-1981	1903719	980692	51.50	748898	90254	70832	7048	923027	48.50

Source: Economic Review, 1981

TABLE 3.2

Distribution of Professional and Technical work seekers in Kerala for the period, 1970-81

Period Ending	Medical Graduates	Engineering Graduates	Diploma holders in Engineering	I.T.I. Certificate holders	Agricultural Graduates	Veterinary Graduates
(1)	(2)	(3)	(4)	(5)	(6)	(7)
31-12-1970	281	1852	3547	8380	133	70
31-12-1971	405	2068	3450	9894	128	116
31-12-1972	654	2014	4163	11540	101	52
31-12-1973	902	2135	3836	10003	80	40
31-12-1974	726	1450	3611	16888	Nil	Nil
31-12-1975	809	1850	3990	20163	32	117
31-12-1976	696	1752	4009	20747	29	75
31-12-1977	490	1784	3585	21376	78	32
31-12-1978	668	1755	4105	23821	58	55
31-12-1979	691	1395	5507	26345	62	56
31-12-1980	871	1508	6606	29693	97	30
31-12-1981	651	1217	7866	37039	103	14

Source: Economic Review, 1981

TABLE 3.3

District-wise Distribution of Labour Force Employment seekers in Kerala

District	Labour force (in lakhs)	Employment seekers		Employment seekers as percentage of Labour force
		In lakhs	Percentage	
(1)	(2)	(3)	(4)	(5)
Trivandrum	8.59	2.05	14.62	23.9
Quilon	9.11	2.40	14.55	26.2
Alleppey	7.87	1.49	10.62	18.9
Kottayam	4.74	1.02	7.27	21.5
Idukki	3.64	0.36	2.57	9.9
Ernakulam	7.72	1.65	11.76	21.4
Trichur	7.11	1.14	8.13	16.1
Palghat	7.56	0.99	7.06	13.1
Malappuram	5.72	0.63	4.49	11.0
Kozhikode	7.16	1.29	9.20	18.0
Cannanore	8.70	1.00	7.13	11.5
Kerala	77.91	14.02	100.00	18.0

Source: Survey on Housing and Employment, 1980.

TABLE 3.4

Rural Urban spread of labour force and Employment in the Districts of Kerala

District	Urban			Rural		
	Labour force	Employment seekers	Percentage	Labour force	Employment seekers	Percentage
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	227445	57634	25.34	631100	147343	23.35
Quilon	47390	14383	30.35	867643	225746	25.72
Alleppey	107928	32424	30.04	679616	116818	17.19
Kottayam	40222	8585	20.60	433687	93057	21.46
Idukki	10917	1082	9.91	353503	34833	9.85
Ernakulam	184399	39902	21.64	587593	125481	21.36
Trichur	59189	10073	17.02	651117	103613	15.91
Palghat	50353	8773	17.63	705750	89764	12.72
Malappuram	37718	5778	15.32	533558	56802	10.65
Kozhikode	183460	30517	16.63	529088	98258	18.57
Cannanore	42325	4917	11.62	827833	95691	11.56
Kerala	991346	214071	21.59	6800388	1187406	17.46

Source : Survey on Housing and Employment, 1980.

TABLE 3.5

Proportion of Employment seekers and Literary levels of the Districts of Kerala

District	Employment seekers as percentage of labour force	Literacy (percentage) according to 1981 census
(1)	(2)	(3)
Trivandrum	23.9	69.20
Quilon	26.2	72.83
Alleppey	18.9	77.59
Kottayam	21.5	81.35
Idukki	9.9	65.97
Ernakulam	21.4	75.71
Trichur	16.1	72.32
Palghat	13.1	59.01
Malappuram	11.0	55.88
Kozhikode	18.0	68.73
Cannanore	11.5	64.68

Source : Survey on Housing and Employment, 1980.

TABLE 4.1

Out turn of NLMP. during 1956-57 to 1980-81 from the Educational Institutions in Kerala

<i>Periods</i>	<i>Matriculates</i>	<i>Intermediates</i>	<i>Graduates in Arts</i>	<i>NLMP total</i>
(1)	(2)	(3)	(4)	(5)
1956-57	43769	6798	1401	51968
1957-58	39778	6489	1687	47954
1958-59	35824	9631	2160	47615
1959-60	37639	7320	1782	46741
1960-61	47267	8039	1790	57096
1961-62	58575	9816	1188	69579
1962-63	71586	11649	998	84233
1963-64	81027	14467	1110	96604
1964-65	90831	7674	1412	99917
1965-66	88493	10662	1994	101149
1966-67	96504	17878	2405	116787
1967-68	87966	18887	2298	1,09151
1968-69	87939	25189	3535	116663
1969-70	93781	22397	6627	122305
1970-71	89008	20387	7512	116907
1971-72	84906	20689	7968	113563
1972-73	62144	17476	7008	86628
1973-74	56351	20711	7245	84307
1974-75	117283	17046	7488	141817
1975-76	114315	24945	5734	144994
1976-77	126300	50647	6016	182963
1977-78	162523	45797	6483	214803
1978-79	175923	49018	6995	231936
1979-80	658652	79310	35277	773239
1980-81	748898	90254	39184	878336
Grand Total	3357282	613176	167297	4137755

Source : Administration Report of Kerala & Calicut Universities—DPI

TABLE 4.2

Supply of NLMP in Kerala over the Plan period commencing from 2nd five Year Plan

<i>Five Year Plan</i>	<i>Matriculates</i>	<i>Intermediates</i>	<i>Graduates in arts</i>	<i>N.L.M.P.</i>
2nd F. Y. P. (1956-57—1960-61)	204277	38277	8320	251374
3rd F. Y. P. (1961-62—1965-66)	390512	54268	6702	451482
Annual plans (1966-67 to 1968-69)	272409	61954	8238	342601
4th F. Y. P. (1969-70—1973-74)	386190	101660	36360	524210
5th F.Y.P. (1974-75—1978-79)	696344	187453	32716	916513
6th Plan 1980-81 including 1979-80	1407550	169564	74461	1651575

Source : Administration Report of Kerala & Calicut Universities & DPI. (Computed)

TABLE 4.3

Supply Growth Index of N.L.M.P. in Kerala from the 2nd five Year Plan (1956-57 to 1980-81)

<i>Plan Period</i>	<i>Cumulative Supply of N.L.M.P.</i>	<i>Supply Growth Index of N.L.M.P. (2nd Plan Bases)</i>
(1)	(2)	(3)
II Five Year Plan (1956-57 to 1960-61)	251374	100
III Five Year Plan (1961-62 to 1965-66)	702856	280
Annual Plans (1966-67 to 1968-69)	1045457	416
IV Five year Plan (1963-70 to 1973-74)	1569667	624
V Five Year Plan (1974-75 to 1978-79)	2486180	989
VI Five Year Plan (including of 1979-80 and 1980-81)	4137755	1646

Source : Computed from Annual Reports of Kerala and Calicut Universities Administration report.

TABLE 4.4

N.L.M.P. Registered with Employment Exchanges in Kerala during 1956-57 to 1980-81

<i>Period</i>	<i>N.L.M.P. on the Live Register of Employment Exchanges</i>				<i>Total work seekers in Kerala</i>	<i>Col. 5 percentage of Col. 6</i>
	<i>Matriculates</i>	<i>Intermediates</i>	<i>Graduates in arts</i>	<i>Total</i>		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1956-57	32869	2132	532	35533	137619	25.82
1957-58	33589	2193	998	36780	141025	26.08
1958-59	45291	2031	1675	48997	106790	45.88
1959-60	4972	1772	1538	52982	105775	50.09
1960-61	56797	1558	1742	60097	105885	56.76
1961-62	69230	1568	1849	72647	151833	47.83
1962-63	85018	3639	1909	90566	141878	63.83
1963-64	82012	2170	1494	85767	137379	62.36
1964-65	69473	1889	1467	72829	140350	51.89
1965-66	7261	2923	2220	84404	157156	53.71
1966-67	83615	3559	2989	90163	179479	50.24
1967-68	89487	3893	4101	97481	201876	48.29
1968-69	124469	6275	6711	137455	239586	57.37
1969-70	151279	7469	10801	169549	293754	57.72
1970-71	167814	10168	12713	190695	367381	51.91
1971-72	218880	16457	12221	247558	453914	54.54
1972-73	226783	18965	20252	266000	523882	50.77
1973-74	252423	20075	21798	294296	587935	50.06
1974-75	281959	28329	24450	334738	691242	48.43
1975-76	315552	38176	27361	381089	753579	50.57
1976-77	351233	46839	28677	426749	849378	50.24
1977-78	434192	56641	30642	521475	1052652	49.54
1978-79	530742	70342	34113	635197	1249372	50.84
1979-80	643758	78432	38217	760407	1843290	41.25
1980-81	748893	90254	47125	88277	1903719	46.56

Source : Administration Reports of Employment and Training Department, Trivandrum.

TABLE 4.5

Growth of unemployment of N.L.M.P. in Kerala over the plan periods

Five Year Plan	N.L.M.P. on the Live Register of EES. at the end of Plan period				Total work seekers in the L. R. of EES.	Col. 5 as % of Col. 6
	Matriculates	Intermediates	Graduates in arts	Total		
(1)	(2)	(3)	(4)	(5)	(6)	(7)
II Plan	56797	1558	1742	60097	1055885	56.76
II Plan	79251	2923	2220	84404	157156	53.71
Annual Plan	124469	6275	6711	137455	239586	57.37
IV Plan	252423	20075	21798	294296	587935	50.06
V Plan	530742	70342	34113	635197	1249372	50.84

Source :—Computed from the data from table 4.4

TABLE 4.6

Unemployment growth index of N.L.M.P. in Kerala during the period 1956-57 to 1980-81

Plan period	Total growth of N.L.M.P. registrants	Unemployment growth index
(1)	(2)	(3)
II Plan end (1960-61)	60097	100
III Plan end (1965-66)	84404	140
Annual Plan end (1968-69)	137455	229
IV Plan end (1973-74)	294296	490
V Plan end (1978-79)	635197	1057
(1980-81)	836277	1475

Computed

TABLE 4.7

General and N.L.M.P. unemployment position in the public and private sector in Kerala during 1961-62 to 1980-81

Period	No. of persons employed			No. of persons employed from N.L.M.P. category		
	Public sector	Private sector	Total	Public sector	Private sector	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1961-62	211217	355852	567069	71813	142340	214153
1962-63	225844	381606	607450	76786	152642	229428
1963-64	241404	417542	658946	82077	167016	249093
1964-65	250329	443810	694139	85111	177524	262635
1965-66	260512	448895	709407	83573	179558	268131
1966-67	269666	428501	689167	91233	175685	266918
1967-68	267910	434887	702797	93768	178303	272071
1968-69	280850	434467	715317	98297	178131	276428
1969-70	293318	409562	702880	105594	172016	277610
1970-71	315332	386434	701766	113519	162312	275821
1971-72	337108	416614	753722	121359	174977	296336
1972-73	352293	423185	775478	126825	177737	304562
1973-74	366899	409891	776790	132083	172154	304237
1974-75	375690	405440	781130	139005	174339	313344
1975-76	426691	476993	903684	157875	205106	362981
1976-77	447416	491566	938982	165544	211373	376917
1977-78	459778	495261	955039	170117	212962	383079
1978-79	475966	508963	984929	176107	218854	394961
1979-80	484376	507843	992219	179219	218372	397591
1980-81	500636	533356	1033992	185235	229343	414578

Source: Administration reports of Employment and Training Department, Kerala.

TABLE 4.8

**Growth of employment for N.L.M.P. in Kerala over the plan period commencing from the
Third Five Year Plan**

Plan period	Employment in organised sector				Employment of N.L.M.P. category						
	Public sector	Private sector	Employment total	Growth of employment		Public sector	Private sector	Employment total	Growth of employment		Employment trend compared
				No.	Index				No.	Index	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
III Plan end	260512	448895	709407	..	100	88573	179558	268131	..	100	..
Annual Plan end	280850	434467	715317	5910	101	98297	178131	276428	8297	104	140
IV Plan end	366899	409891	776790	67383	109	132083	1721154	304237	36106	113	54
V Plan end	475966	508963	984929	275522	139	176107	218854	394961	126830	147	46
VI Plan 1st year end	500636	533356	1033992	324585	146	185235	229343	414578	146447	155	45

Computed

TABLE 4.9
Growth of employees in State Government Department in Kerala during the period 1960-61 to 1982-83

Category	1960-61		1970-71		1974-75		1977-78		1979-80		1980-81		1981-82		1982-83	
	No.	Index	No.	Index	No.	Index	No.	Index	No.	Index	No.	Index	No.	Index	No.	Index
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Class I	404	100	785	194	1071	265	1343	332	2442	604	3757	930	3630	898	3565	882
Class II	7484	100	10473	140	13415	179	15324	205	26696	357	33394	446	35411	473	34387	459
Class III	97714	100	159970	164	183211	183	191128	196	200869	206	204081	209	208486	213	200827	206
Class IV	16984	100	24998	148	30847	182	33059	195	29542	174	28569	168	30424	179	29720	175
Others	6439	100	10146	158	12282	191	8675	135	1936	31	1464	23	1259	20	1334	21
Starz	129025	100	206372	160	240826	187	249529	193	261485	203	271265	210	279210	216	269833	209
Class II + III	105198	100	170443	162	196626	187	200452	196	227565	216	237475	226	243897	232	235214	224
Percentage to total Employment	81.53		82.59		81.65		82.74		87.03		87.54		87.35		87.17	

Source: Appendix I of Kerala Budget Estimates.

TABLE 5.1

Target outlay, Employment Potential and Achievement of a Million Job Programme in Kerala

Schemes	Target			Expenditure incurred (in lakhs)	Achievements	
	Out lay (in lakhs)	Employment potential	Central Assistance (in lakhs)		Employment generated	Substantial Employment given
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Self Employment Scheme	300.19	12113	215.09	209.42	4974	2447
Trainees Schemes Employment	213.19	17307	103.94	170.65	11086	4557
Incentive Scheme	32.91	3165	19.64	35.80	1753	NA
Total	546.29	32585	338.67	415.87	17813	7004

Source: 21st Report of committee on Public Accounts Kerala VI K.L.A.

TABLE 5.2

District-wise Target and Achievement of TRYSEM in Kerala during 1979-80 to 1981-82

District	No. of person Trained under TRYSEM in Kerala							
	1979-80		1980-81		19 1-82		Short fall for 3 years	Target for 1982-83
	Target	Achievement	Target	Achievement	Target	Achievement		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Trivandrum	480	14	480	223	480	54	1149	1629
Quilon	680	12	680	173	680	130	1725	2405
Alleppey	680	8	680	168	680	58	1806	2486
Kottayam	400	4	400	240	400	54	902	1302
Idukki	160	2	160	72	160	160	216	368
Ernakulam	600	6	600	6	600	64	1722	2322
Trichur	680	106	680	460	680	277	1197	1877
Palghat	480	7	480	139	480	142	1152	1632
Malappuram	520	Nil	520	37	520	30	1491	2011
Kozhikode	560	4	560	106	560	130	1430	1990
Wynad	120	..	120	..	120	12	348	468
Cannanore	480	18	480	74	480	75	1 73	17.3
Kerala	5840	181	5840	1698	5840	1186	14411	20253

Source: Department of Planning and Economics Affairs, Secretariat.

TABLE 5.3
District-wise details of self employment of trained youth in Kerala
during 1981-82

District	Trained	Self-employed	% achievement
(1)	(2)	(3)	(4)
Trivandrum	54	8	14.81
Quilon	130	61	46.92
Alleppey	58	5	8.62
Kottayam	54	24	44.44
Idukki	160	3	1.88
Ernakulam	64	..	0.00
Trichur	277	..	0.00
Palghat	142	15	10.56
Malappuram	30	29	96.67
Kozhikode	130	3	..
Wynad	12	..	0.00
Cannanore	75	27	36.00
Kerala	1186	175	14.76

Source :—Development Department, Secretariat.

TABLE 6.1
Flow of Institutional Finance for self employment schemes in Kerala
during 1977-81

Year	India		Kerala		% of Kerala to India	
	No. of borrowed accounts	Amount in lakhs Rs.	No. of borrowed accounts	Amount in lakhs Rs.	No. of persons	Amount
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1977	503656	7161	55611	538	11.04	7.51
1978	574953	8719	65836	663	11.45	7.60
1979	671866	11918	73812	814	10.99	6.83
1980	739315	14532	107974	1518	14.60	10.45
1981	804703	16583	110233	1824	13.70	11.00

Source:—Development Department, Secretariat.

TABLE 6.2

**Outstanding advance of commercial banks for Small Scale Industries in India and Kerala
for the period 1973-79**

(Rs. in lakhs)

Year (as on 30th June)	Advance for Small Scale Industry	
	Kerala	India
(1)	(2)	(3)
1973	4338 (20.2)	75889 (12.0)
1974	5247 (20.6)	100510 (12.6)
1975	5842 (20.1)	111754 (12.4)
1976	6826 (19.5)	125095 (10.7)
1977	8374 (19.4)	146216 (10.9)
1978	10603 (19.9)	184770 (11.6)
1979	12275 (16.9)	227735 (11.9)

(Figures in brackets show percentages to total outstanding credit)

Source:—Study on Development of Commercial Banking in Kerala 1969-79 of Kerala State Planning Board.

TABLE 6.3

**District-wise outstanding advances to Small Scale Industry by Commercial Banks in Kerala
(as on 30th June)**

(Rs. in lakhs)

District	1973	1974	1975	1976	1977	1978	1979
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Trivandrum	134 (3.1)	177 (3.4)	167 (2.8)	288 (4.2)	315 (3.8)	416 (3.9)	565 (4.6)
Quilon	1602 (36.9)	2127 (40.5)	2720 (46.6)	2847 (41.7)	3978 (47.5)	4741 (44.7)	4541 (37.0)
Alleppey	294 (6.8)	401 (7.6)	345 (5.9)	516 (7.6)	710 (8.5)	447 (5.2)	843 (6.9)
Idukki	13 (0.3)	12 (0.2)	14 (0.2)	25 (0.4)	38 (0.5)	44 (0.4)	69 (0.6)
Kottayam	170 (3.9)	252 (4.8)	277 (4.7)	289 (4.2)	306 (3.6)	432 (4.1)	629 (5.1)
Ernakulam	1198 (27.6)	1047 (20.0)	1055 (18.1)	1308 (19.2)	1462 (17.5)	2190 (20.6)	2979 (24.3)
Trichur	351 (8.1)	430 (8.2)	443 (7.6)	466 (6.8)	509 (6.1)	675 (6.4)	853 (6.9)
Palghat	109 (2.5)	126 (2.4)	136 (2.3)	183 (2.7)	208 (2.5)	274 (2.6)	328 (2.7)
Malappuram	13 (0.3)	37 (0.7)	40 (0.7)	60 (0.9)	70 (0.8)	107 (1.0)	184 (1.5)
Kozhikode	185 (4.3)	240 (4.6)	262 (4.5)	308 (4.5)	322 (3.8)	658 (6.2)	570 (4.6)
Cannanore	269 (6.2)	398 (7.6)	383 (6.6)	536 (7.8)	456 (5.4)	519 (4.9)	714 (5.8)
State	4338 (100.0)	5247 (100.0)	6842 (100.0)	6826 (100.0)	8374 (100.0)	10603 (100.0)	12275 (100.0)

Figures in brackets indicate percentages to total.

Source:—Study on Development of Commercial Banking in Kerala 1969-79 of Kerala State Planning Board.

**STUDY ON THE UTILISATION PATTERN OF
APPRENTICES IN KERALA**

A. MEERA SAHIB



STUDY ON THE UTILISATION PATTERN OF APPRENTICES IN KERALA

CHAPTER I

INTRODUCTION

Manpower is the greatest economic asset of any nation, adequacy of natural resources has meaning only in relation to them. More recently, economists have come to recognise that investments in human capital not only provide dividends for the individual but may account for a large share of the economic growth. Skilled craftsmen constitute the bulk of trained manpower requirements for the development envisaged in our five year plans.

The vocational training programme has been undertaken to train candidates and develop them as skilled craftsmen to meet requirements of the fast developing industrial sector and to equip them for suitable industrial employment. The main objects of the craftsmen training scheme are :

- (i) to ensure a steady flow of skilled workers in different trades for industry;
- (ii) to raise the quality and quantity of industrial production by systematic training of workers;
- (iii) to reduce the unemployment among the educated youth by equipping them for suitable industrial employment.

In order to supplement the programme of institutional training by on the job training and regulate the training arrangements in industry, the Government of India enacted the Apprentices Act in 1961. The Apprentices Act was implemented in Kerala from 1968 onwards.

Objects and reasons

The apprenticeship training programme provides the country's future manpower requirements of the developing India tries which could improve the quality of production and minimise production cost as well as decreasing wastage of materials, etc. The secondary object of the training programme is to regulate the progress of apprentices in industry in such a way to conform both standard of training and to utilise fully the facilities available in industry for imparting practical training, providing special attention to reserve training places for the weaker sections of the community.

A careful study of the statement of objects and reasons underlying the introduction of the bill in Parliament on 4th August 1961 brings out the following objectives of the Apprentices Act.

- (1) To organise on a systematic basis the training of apprentices in industry with a view to meeting its increasing demand for skilled craftsmen ;
- (2) To utilise fully the facilities available with industry for the training of apprentices, and
- (3) To ensure the training of apprentices in accordance with programmes, standards and syllabi drawn by expert bodies.

CHAPTER II

APPRENTICESHIP TRAINING SCHEME IN KERALA

The department of Industrial Training has been entrusted to implement the Apprenticeship Training Scheme in Kerala. The Director of Employment and Training functions as the State Apprenticeship adviser who is assisted by the Deputy State Apprenticeship Adviser in the headquarters. There are three junior Apprenticeship Advisers at the Headquarters to assist the State Apprenticeship Adviser. At the district level, the Training Officers in the related instruction centres function as Assistant Apprenticeship Advisers assisted by a Junior Apprenticeship Adviser and two Group Instructors. In the Districts where there are no related instruction centres, the Principals of the I.T.Is. (Industrial Training Institutes) are functioning as the Assistant Apprenticeship Advisers assisted by a Junior Apprenticeship Adviser (Technical).

Training and related instruction

Under the Act it is the statutory obligation of all employers to engage the prescribed number of apprentices with the ratio determined by the rules for any designated trade, in his establishment to undergo apprenticeship training in that trade. The ratio of apprentices to workers, period of training and educational qualification, are prescribed under the Apprenticeship rules framed under the Apprentices Act, 1961. The details regarding the trade groups, designated trades, ratio of apprentices to workers, period of training and educational qualifications are given in Appendix I.

A person, male or female, is qualified for being engaged as an apprentice if he/she is not less than 14 years of age and satisfies the minimum standard of education and physical fitness.

Apprentices are assigned to trades in the establishments in proportion to the number of skilled workers in the establishments. The duration of the training varies from 6 months to 4 years. Mostly ex. I.T.I. candidates are engaged as apprentices in Kerala. The trainees who have passed out of the I.T.Is. are entitled to a corresponding rebate for the institutional training successfully undergone by them wherever it is admissible. The Apprentices are usually engaged twice in a year. The employees are at liberty to select the apprentices of their choice. Every apprentice has to execute a contract of Apprenticeship and the same will be registered by the State Apprenticeship Adviser or by the authority authorised by him. There is provision in the contract to pay compensation to the employer if the apprentices fail to comply the full tenure of contract and also to pay compensation to the apprentice if the employer fails to carry out his obligations. The Apprenticeship training is imparted in accordance with the standard prescribed by the Central Government in consultation with the Central Apprenticeship Council. Every employer shall make suitable arrangements in his workshop for imparting practical training in accordance with the programme approved by the State Apprenticeship Adviser.

As per the provisions 10 (2) of the Act, it is the statutory obligation on the part of the State Government to give a course of Related Instruction (Theory Classes) approved by the Government of India with a view to giving the trade apprentices such theory knowledge as they need in order to become fully qualified craftsmen, thus enabling them to sit for the National Apprenticeship Certificate Examination. The time spent by apprentices in attending related instruction will be treated as part of the period of work. Every apprentice will be relieved for a day attending related instruction classes in every week.

Government has so far established 7 Related Instruction centres at Trivandrum, Quilon, Alleppey, Kottayam, Kalamassery, Trichur and Calicut. In other places the R.I. Classes are conducted at the Industrial Training Institutes.

Basic Training

It is also obligatory on the part of the State Government to provide facilities for the basic training. At present facilities do not exist in the Industrial Training Institutes to provide basic training in the trade groups like Printing, Catering, Textile, Commercial, etc., and therefore such training is now imparted in private establishments for which they are being paid basic training charges of Rs. 85 p.m. per apprentice.

In the beginning stage only 14 Engineering trades were designated under the Act. Now the Act covers 131 trades.

During the Apprenticeship period the employers are bound to pay stipend. The stipend rate to the apprentices has been enhanced by State Government from 23-1-1976. Table I below shows the rate of stipend before 23-1-1976 and rate of stipend after 23-1-1976.

TABLE II

Year	Rate of stipend	
	Before 23-1-1976	From 23-1-1976
	Rs.	Rs.
1st year	90.00	130.00
2nd year	100.00	140.00
3rd year	108.00	150.00
4th year	144.00	200.00

CHAPTER III

IMPLEMENTATION OF THE APPRENTICESHIP TRAINING PROGRAMME IN KERALA

The surveyors under the directions of the State Apprenticeship Adviser undertake surveys in the establishments coming under the purview of the Act and determine, with reference to the training facilities available corresponding to the syllabus framed for occupational training, the number of apprentices trained in certain proportion with the total number of persons engaged in that occupation. The number of seats located by the surveyors during 1970-71 was 613. There were 111 apprentices undergoing apprenticeship training in various industrial establishments in Kerala during the period. As on 31-9-1980 the number of seats located was 5,732 and number of seats utilised was 4,612. The following table explains the progress made during the last decade in the Apprenticeship Training Programme in Kerala.

TABLE II

Period	No. of seats located	No. of Seats utilised
1970-71	613	411
1971-72	752	694
1972-73	898	622
1973-74	1500	954
1974-75	1872	1289
1975-76	4029	3805
1976-77	6209	6037
1977-78	5195	4385
1978-79	5507	4270
1979-80	5586	4438
30-9-1980	5732	4612

The number of seats utilised increased from 411 in 1970-71 to 1,289 in 1974-75 to 3,805 in 1975-76 to 6,037 in 1976-77. As on 30-9-1980 there were 5,732 seats located in the State and 4,612 seats utilised. The table given above reveals that the number of seats located had decreased from 6,209 in 1976-77 to 5,586 in 1979-80 and the number of seats utilised from 6,037 to 4,438.

The following table gives the district-wise information regarding the seats located and seats utilised.

TABLE III

Statement of survey of establishment, assignments and placements of Apprentices

Centre	No. of seats located			No. of seats utilised		
	31-12-1976	30-9-1977	30-9-1980	31-12-1976	31-9-1977	30-9-1980
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Trivandrum	930	909	1131	601	947	1082
Quilon	650	650	565	600	653	415
Alleppey	454	483	700	470	436	351
Kottayam & Idukki	702	702	398	686	689	325
Ernakulam	1502	1502	1348	1485	1525	1263
Trichur	450	450	400	447	450	317
Palghat	409	406	289	403	430	277
Malappuram	..	..	144	..	..	45
Calicut	637	722	610	637	682	455
Cannanore	355	355	147	355	355	72
Total	6089	6209	5732	5971	6137	4612

Statistics reveal that Ernakulam district accounts for the engagement of 1,263 apprentices (27.3%) of the total apprentices engaged in the State followed by Trivandrum where 1,032 apprentices were undergoing training (23.4%). Calicut and Quilon have third and fourth places i.e. 455 and 415 respectively. It is to be noted that the number of seats located and utilised decreased from 6,209 and 6,137 as on 31-9-1977 to 5,971 and 4,612 on 30-9-1980.

National Employment Service and the Apprenticeship Training Programme

The employment exchanges play an important role in the recruitment prior to training and placement after training. The following table (Table IV) gives the details regarding the number of applications forwarded to apprenticeship authorities and the number actually placed from 1965-66 to 1979-80.

TABLE IV
Number of applications forwarded and number actually placed through National Employment Service.

Year	No. of applications forwarded to Apprenticeship authorities	No. actually placed in apprenticeship
1965-66	3098	372
1966-67	2291	402
1967-68	3775	270
1968-69	1688	298
1969-70	1448	65
1970-71	1319	66
1971-72	2283	152
1972-73	1767	94
1973-74	1942	94
1974-75	1387	85
1975-76	6679	309
1976-77	8161	158
1977-78	4294	528
1978-79	4097	90
1979-80	3044	182

Live Register

There were 910 candidates holding National Apprenticeship certificate during April 1977 in the live register of Employment Exchanges in Kerala. In March 1980 there were only 889 candidates in the live register.

In Kerala mostly ex. I.T.I. Certificate holders are engaged as apprentices. So it will be interesting to note the number of I.T.I. certificate holders in the live register of Employment Exchanges in Kerala. About 27,293 persons trained in I.T.Is. may include the persons undergone apprenticeship training and were on the live register as on 31-3-1980. The details from 1970 to 1980 are as follows:

TABLE V
Number of I.T.I. Certificate holders in the live register of Employment Exchanges in Kerala

Year	Number
1970	8380
1971	9894
1972	11540
1973	10003
1974	16888
1975	20163
1976	20747
1977	18804
1978	21946
1979	25155
1980	27293

During the last decade the number of I.T.I. certificate holders in the live register had increased more than 300% (i.e. 8,380 in 1970 to 27,293 in 1980).

The reasons for their unemployment may be too fold. Quantitatively they may have been trained in large number than required by industry and qualitatively the training may not have been according to the specific requirements of the industry.

Expenditure

The following table (Table VI) shows the budgetted plan outlay and expenditure during 1978-79, 1979-80 and 1980-81 for the Apprenticeship Training Programmes in Kerala.

TABLE VI
Expenditure (Plan out lay)

<i>Year</i>	<i>Budgetted plan outlay (lakhs)</i>	<i>Expenditure (lakhs)</i>
1978-79	10.00	10.304
1979-80	2.00	2.106
1980-81 (up to 31-1-1981)	2.00	1.487

Table No. VII gives the details regarding the expenditure under non-plan during 1978-79, 1979-80 and 1980-81.

TABLE VII
Expenditure (Non-plan)

<i>Year</i>	<i>Original allotment (lakhs)</i>	<i>Expenditure (lakhs)</i>
1978-79	5.34	2.97
1979-80	13.870	13.971
1980-81 (upto 31-1-1981)	12.621	11.808

STUDY OF THE UTILISATION PATTERN OF APPRENTICES IN KERALA

Objectives

As already stated the statutory apprenticeship programme was designed to organise on a systematic basis, the training of apprentices in industry with a view to meeting the increasing demand for skilled craftsmen, utilise fully the facilities available with industry for the training of apprentices, and to ensure the training of apprentices in accordance with the programme, standards and syllabi drawn by expert bodies.

It is with reference to these objectives that a study has been undertaken by the Manpower unit of the Directorate of Employment and Training under the guidance of the Manpower Division of the Directorate of Economics and Statistics, to find out the extent to which the objectives have been fulfilled. It is also intended—

- (a) to throw light on the pattern of employment and unemployment position of apprentices who have come out successfully in the trade test.
- (b) to estimate the period of waiting to secure a job.
- (c) to locate the different categories in which the apprenticeship holders are in excess.
- (d) to obtain information on migration of persons already employed.
- (e) to analyse the educational qualification, employment status, age distribution, trade-wise distribution, occupational status of the parent/guardian, sectors of employment, average monthly income of wage earners, tenure of employment of wage earners, period of current employment, trade-wise distribution of apprentices showing the preference of employment, registration with employment exchanges, mobility of unemployed apprentices, employment in the same establishment where undergone training and quality and utility of related instruction and shop floor training, etc.

Coverage

The study covered all the apprentices who have passed the trade test in 1972, 1973 and 1974 from different centres of Kerala. As the home address of the apprentices passed out from the Calicut centre was not available, the details could not be collected from the candidates passed out from this centre from all 385 apprentices were selected for the study. The persons selected were contacted by the field staff of the Directorate of Economics and Statistics.

Tool of Survey

The tool of survey mainly comprised of a questionnaire designed to collect pertinent information about their employment or unemployment and their view on shop floor training and related instruction. If they were employed the questionnaire sought to know, whether they were engaged on the same or allied trade in which they had received some training, monthly emolument, time lag between completion of training and securing employment and whether employed in the same establishment where undergone training. In the case of unemployed persons, information was obtained on period of unemployment, registration with employment exchange, etc. A copy of the questionnaire and instructions to the field staff is given in Appendix II.

Response

On the whole 385 apprentices were selected for study. The investigators could contact 329 apprentices and the percentage of response being 85.45%. The remaining persons could not be contacted due to their non-availability in the given address.

Characteristics of Apprentices

(a) *Age Composition*.—The minimum age prescribed for apprentices is 14 years, while no maximum age is stipulated. It was noticed that 49.5% of the respondents were in the age group of 25–29 while 43.5% were in the age group of 30 and above. The age distribution of the apprentices contacted is given in the following table.

TABLE VIII
Age Distribution

	Age group	Number	Percentage
		Nil	Nil
(a)	15–19	Nil	Nil
(b)	20–24	163	49.5
(c)	25–29	143	43.5
(d)	30 and above	23	7.0
(e)	Not specified		
	Total	329	100.0

The trade-wise details of the age composition of apprentices are given in Appendix III.

(b) *Educational Status.*—The distribution of apprentices according to their basic educational qualifications is given in the table IX below.

TABLE IX
Educational qualification of apprentices

<i>Educational qualification</i>	<i>Number of apprentices</i>	<i>Percentage to total</i>
(a) Below S. S. L. C.	64	19.5
(b) S. S. L. C.	238	72.3
(c) P. D. C.	6	1.8
(d) Graduates and above	Nil	Nil
(e) Not specified	21	6.4
Total	329	100.0

The above table reveals that 72.3% of the apprentices had passed the S. S. L. C. examination while 19.5% of the apprentices were below S. S. L. C. 1.8% of the apprentices has passed the Pre-degree examination. The trade-wise academic qualifications of the apprentices is given in Appendix IV.

(c) *Family background.*—The following table reveals the family background of the apprentices contacted.

TABLE X
Occupational Status of the parent/guardian

<i>Status</i>	<i>Number</i>	<i>Percentage</i>
(a) Cultivator	84	25.5
(b) Artisans	..	..
(c) Services	18	5.5
(d) Labourers	30	9.1
(e) Teachers	2	0.6
(f) Business	15	4.5
(g) Pensioners	17	5.2
(h) Others	29	8.8
(i) Not specified	134	40.7
Total	329	100.0

Farming community was the single large category from which nearly 25.5% of the apprentices were drawn. Parents or guardians belonged to labour sector in respect of 9.1% apprentices, and to service sector in the case of 5.5% apprentices. In respect of 5.2% apprentices their parents or guardians had retired from active service, 8.8% apprentices were from all other sectors together. In the case of 40.7% of apprentices information was not properly furnished.

The trade-wise break up of the occupational status of the parent or guardian is given in Appendix V.

(d) *Weaker section.*—Only 1.5% of the apprentices who responded the survey belonged to scheduled caste. The trade-wise details of the apprentices belonged to scheduled caste are given in Appendix VI.

(e) *The activity status.*—The details showing the activity status of the apprentices contacted are given in the table below.

TABLE XI
Activity status

	<i>Number</i>	<i>Percentage</i>
(a) Employed	271	82.4
(b) Unemployed	37	11.2
(c) Not specified	21	6.4
Total	329	100.0

The study brought to light that 82.4% of the apprentices contacted were employed and 11.2% were unemployed. 6.4% did not reveal their activity status. All the apprentices contacted in the trades of Refrigeration and Air-conditioning, Draftsman, Mechanical, Building construction, Tractor Mechanic, Machinist and Miller were found employed. Among the persons contacted in different trades the percentages of apprentices employed were found high in the trades of Electrician (92.9%), Fitter (80.2%), Boiler operator (94.4%), Blacksmith (94.1%), Mechanic Motor Vehicle (83.3%) and Sheet Metal Worker (85%). The details showing the activity status of Craftsmen in the different trades are given in Appendix VII.

(f) *Employment status.*—The analysis of the employment status of the apprentices revealed that 262 apprentices out of 271 employed apprentices contacted were employees (96.68%). There were only 7 apprentices who were self employed. There were no employers among the apprentices contacted. The following table shows the details of employment status of apprentices.

TABLE XII
Employment status of apprentices

Employment status	Number	Percentage
(a) Employee	262	96.68
(b) Self employed	7	2.58
(c) Unpaid family workers	1	0.37
(d) Others	1	0.37
Total	271	100.0

The trade-wise distribution of the employment status of apprentices is given in Appendix VIII.

(g) *Utilisation of the apprentices trained.*—The following table reveals the usefulness of the apprenticeship training scheme.

TABLE XIII
Usefulness of apprenticeship training

Sl. No.	Category	Number	Percentage
1.	Employed in the same trade	200	73.9
2.	Employed in allied trade	43	15.9
3.	Employed in jobs not connected with the trade	22	8.1
4.	Employed in other unskilled jobs	2	0.7
5.	Not specified	4	1.5
	Total	271	100.0

The study revealed that nearly 74% of the employed persons were engaged in the same trade in which they were trained. These proportion were substantial in the case of Instrument Mechanic, Hotel receptionist, Mechanic Refrigeration and Air Conditioning, Draftsmen Mechanical, Tractor Mechanic, Electrician and Welder. They were relatively low in the case of Mechanist, Mechanic Motor Vehicle, Sheet Metal worker, Wiremen, etc. It was reported that 15.9% of the apprentices were employed in activities allied to their training where they could be fruitfully utilised, where 8.1% were employed in jobs not connected with any trade and 0.7% of the apprentices contacted were engaged in other unskilled jobs. 1.5% of the apprentices did not specify clearly the trade in which they were employed. The trade-wise distribution of the apprentices are given in Appendix IX.

TABLE XIV
Sectors of employment

Sectors	Number	Percentage
(a) State	124	45.76
(b) Central	47	17.34
(c) Quasi Government	2	0.74
(d) Co-operative	2	0.74
(e) Local bodies	1	0.37
(f) Private	80	29.52
(g) Not specified	15	5.53
Total	271	100.00

Table XIV above shows that 45.7% of the apprentices were employed in the State sector. Central sector offered employment to 17.3% of the employed apprentices while private sector employed 29.5%. The details were not revealed in the case of 5.5% of the employed apprentices. The trade-wise distribution of the sectors of employment of the apprentices is given in Appendix X.

(h) *Income.*—The analysis of emoluments received by the apprentices indicates that 72.7% of them earned Rs. 400 and above per month. None of them had received emoluments below Rs. 100 per month. Only 0.7% of the employed apprentices were in the income range of Rs. 200, Rs. 300 per month, while 7% of the apprentices had earned an income between Rs. 300 to 400 per month, 38 persons have not revealed their income. Table No. XV shows the distribution of apprentices according to their monthly income.

TABLE XV

Distribution of Apprentices according to their income

Income Range	No. of apprentices	Percentage
(a) Below Rs. 100	Nil	Nil
(b) Rs. 100 to 200	2	0.74
(c) Rs. 200 to 300	15	5.54
(d) Rs. 300 to 400	19	7.01
(e) Rs. 400 and above	197	72.69
(f) Not specified	38	14.02
Total	271	100.00

Trade-wise details of the income of the apprentices are given in Appendix XI.

(i) *Tenure of Employment.*—To analyse the tenure of employment and the nature of job security, employed apprentices covering under the study had been grouped under three categories viz. permanent, temporary and casual workers.

TABLE XVI

Tenure of Employment of Wage earners

Tenure of Employment	Number	Percentage
(a) Permanent	191	70.48
(b) Temporary	69	25.46
(c) Casual worker	7	2.58
(d) Not specified	4	1.48
Total	271	100.00

The study reveals that 70.48% of the employed apprentices were permanently employed, 25.46% were employed temporarily and 2.58% were casual workers.

The trade-wise details of the tenure of employment are given in Appendix XII.

(j) *Period of current unemployment.*—As already indicated only 11.2% of the apprentices covered under the study were unemployed. As regards the duration of unemployment it was found that 53.5% of the unemployed apprentices contacted remained unemployed for a period of 4 to 5 years. Unemployment was below 6 months for 10.8% of the unemployed and it was 6 months to one year for 5.4% and one year to 2 years for 2.7 per cent. It was 2 to 3 years for 10.8 per cent and 3 to 4 years for 2.7 per cent. The following table shows the details of the period of current unemployment.

TABLE XVII

Period of current Unemployment

Period	No. of apprentices	Percentage
(a) Below 6 months	4	10.8
(b) 6 months to 1 year	2	5.4
(c) 1 year to 2 years	1	2.7
(d) 2 years to 3 years	4	10.8
(e) 3 years to 4 years	1	2.7
(f) 4 years to 5 years	22	59.5
(g) Not specified	3	8.1
Total	37	100.0

The trade-wise distribution of apprentices showing the waiting period is given in Appendix XIII.

(k) *Preference of Employment.*—The percentage distribution showing the preference (in trades) of the unemployed persons is given below.

TABLE XVIII
Trade & Work sought

	Number	Percentage
1. Work sought in the same trade	21	56.8
2. Work sought in any trade	Nil	Nil
3. Any work sought	10	27.0
4. Not specified	6	16.2
Total	37	100.0

The study revealed that while 56.8 per cent of the unemployed apprentices were particular to get employment in the respective trades in which they were trained, 27 per cent were ready to accept job in any other trade, 16.2 per cent of the unemployed apprentices have not specified their preference. The trade-wise distribution of apprentices and their willingness to accept job is given in Appendix XIV.

(l) *Registration with Employment Exchanges.*—About 36.27 per cent of the unemployed respondents have already registered their names with employment exchanges, seeking suitable jobs. Among the employed apprentices about 17.3 per cent was registered with employment exchanges. The reason for registration by the employed apprentices may be for obtaining better employment opportunities. The non-registration of the remaining unemployed apprentices may be due to the long distance between employment exchange and place of residence or non-receipt of qualifying certificates of discontinuance of registration on account of non-renewal or ignorance regarding the existence of employment exchanges.

(m) *Migration.*—The survey has also thrown some light on the extent of migration of employed apprentices to other States, though the purpose of migration was not known, it was inferred from the information gathered that the main reason of migration was securing better employment. The following table gives the distribution of employed apprentices according to the place of migration.

TABLE XIX
Migration

Nature of migration	Number	Percentage
1. Within the State	33	46.5
2. Outside the State	20	28.2
3. Outside the country	12	16.9
4. Not specified	6	8.4
Total	71	100.0

The data collected revealed that out of 271 employed apprentices 71 (2.19 per cent) persons have migrated to other places 46.5 per cent of the migrated apprentices were working in other districts within the State. 28.2 per cent of them were working outside the State while 16.9 per cent were working outside the country. The trade-wise distribution of migration is given in Appendix XV.

(n) *Mobility.*—The distribution of unemployed apprentices according to their mobility is given below :

TABLE XX
Mobility

Mobility	No. of apprentices	Percentage
Prepared to accept job :—		
(a) Within the home town	Nil	Nil
(b) Anywhere in the district	1	2.7
(c) Anywhere in the State	2	5.4
(d) Anywhere in the country	10	27.0
(e) Anywhere abroad	22	59.5
(f) Not specified	2	5.4
Total	37	100.00

It may be noted that about 27 per cent of the unemployed apprentices were prepared to accept job any where in the country. None of them was particular to get employment within the home town. Only a negligible per cent was particular to get employment within the home district (2.7 per cent), and within the State (5.4 per cent). Majority of the unemployed apprentices (59.5 per cent) were even prepared to accept job any where abroad.

The details of distribution of unemployed apprentices according to trades and mobility are given in Appendix XVI.

(o) *Employment in the same establishment.*—

TABLE XXI

<i>Employment.</i>	<i>No. of apprentices</i>	<i>Percentage</i>
(a) In the same establishment	54	19.9
(b) In the connected establishment	..	..
(c) In other establishment	185	68.3
(d) Not specified	32	11.8
Total	271	100.0

Table above explains that only 19.9 per cent of the apprentices employed reported that they were employed in the same establishment in which they were trained. 68.3 per cent of the employed Apprentices were engaged in the establishments which were not having any connection with the establishments in which they were trained.

The trade-wise details of the apprentices and the establishments in which they were engaged are given in Appendix XVII.

(p) *Quality and utility of related Instruction and shop Floor training.*—Questionnaire for the study was designed to collect pertinent information about their views on related instruction and shop floor training. The following table gives the details regarding their opinion on the quality and utility of related instruction and shop floor training.

TABLE XXII
Quality & Utility

<i>Opinion</i>	<i>Related instruction</i>		<i>Shop floor</i>	
	<i>No.</i>	<i>Percentage</i>	<i>No.</i>	<i>Percentage</i>
(1) Good	224	68.1	223	67.8
(2) Satisfactory	71	21.6	71	21.6
(3) Poor	5	1.5	6	1.8
(4) Not specified	29	8.8	29	8.8
Total	329	100.0	329	100.0

Nearly 68.1 per cent of the apprentices who responded to the survey praised the quality of related instruction while 21.6 per cent of apprentices indicated their satisfaction, about 1.5 per cent of them were dissatisfied about the quality of related instruction imparted to them.

In regard to the quality and utility of shop floor training about 67.8 per cent of the apprentices had praised the quality and utility of shop floor training 21.6 per cent of them expressed their satisfaction. While 1.8 per cent of them were dissatisfied with the training. The trade-wise details of the opinion of the apprentices are given in Appendix XVIII.

Summary of findings

The findings of the survey are summarised as below :—

- (a) 385 apprentices who had passed the apprentice Trade Test during 1972, 1973 and 1974 were selected for the study. The Investigators could contact 329 apprentices. The percentage of response being 85.45 per cent.
- (b) About 49.5 per cent of apprentices who responded to the survey belonged to the age group of 25-29. 43.5 per cent were in the age group of 30 and above.
- (c) Nearly 72.3 of the apprentices had passed S.S.L.C., 1.8 per cent of the apprentices had passed the Pre-degree course.
- (d) 25.5 per cent of the apprentices were drawn from the farming community. Family background of some of the remaining apprentices was labourers (9.1 per cent), Service sector (5.5 per cent), Pensioners (5.2 per cent), Business (4.6 per cent) etc.
- (e) Only 1.5 per cent of the apprentices covered under the study belonged to scheduled caste.
- (f) 82.4 per cent of the apprentices were employed.
- (g) 96.68 per cent of the employed apprentices were employees.
- (h) Nearly 74 per cent of the employed persons were engaged in the same trade in which they were trained 15.9 per cent were engaged in allied trade.
- (i) 45.76 per cent of the employed apprentices were employed in the State sector while 17.34 per cent in the Central Sector.
- (j) Monthly emoluments of apprentices regularly employed ranged between Rs. 400 and above in the case of 72.69 per cent of the total between Rs. 300 and 400 in respect of 7.01 per cent and between Rs. 200 and 300 in regard to 5.54 per cent.

- (k) 70.48 per cent of the employed apprentices were permanently employed while 25.46 per cent were temporary hands.
 - (l) 11.2 per cent of the apprentices contacted were reported to be unemployed.
 - (m) The extent of unemployment was more than 4 years in respect of 59.5 per cent of the unemployed apprentices.
 - (n) 58.8 per cent of the unemployed apprentices were sought work in the same trade in which they were trained.
 - (o) About 70.3 per cent of unemployed respondents have registered with employment exchanges while 17.3 per cent of the employed apprentices were registered for better employment opportunities.
 - (p) The data collected revealed that 26.19 per cent of the employed apprentices were working outside their home districts. Among them about 7 per cent were working outside the country.
 - (q) 27 per cent of the unemployed apprentices were prepared to accept job anywhere in the country. 59.5 per cent were prepared to accept job any where abroad.
 - (r) Only 19.9 per cent of the employed apprentices were engaged in the same establishment in which they were trained. 68.3 per cent were employed in the establishment not connected with the trade in which they were trained.
 - (s) Nearly 68.1 per cent of apprentices contacted praised the quality and utility of related instruction while 67.8 per cent of them praised the quality and utility of shop floor training.
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APPENDIX—I

Details on designated trade, ratio of apprentices, period of training and qualifications prescribed under the Apprenticeship Rules framed under Apprentices Act, 1961

<i>Sl. No.</i>	<i>Designated trade</i>	<i>Ratio of apprentices to workers</i>	<i>Period of Training</i>	<i>Minimum Educational qualification</i>
(1)	(2)	(3)	(4)	(5)
GROUP No. 1—Machine shop trades Group:				
1.	Fitter	1:7	3 years	} Passed 2 standards below S.S.L.C. or passed the 8th class examination or its equivalent under the 10+2 system.
2.	Turner	1:7	3 years	
3.	Machinist	1:7	3 years	
4.	Machinist (Grinder)	1:7	3 years	
GROUP No. 2—Foundry Trades Group:				
5.	Pattern Maker	1:7	3 years	} Passed 2 standards below S. S. L. C. or passed the 8th class examination or its equivalent under the 10+2 system.
6.	Moulder	1:7	3 years	
GROUP No. 3—Metal Working Trades Group:				
7.	Blacksmith	1:7	3 years	} Passed 2 standards below S. S. L. C. or passed the 8th class examination or its equivalent under the 10+2 system.
8.	Sheet Metal Worker	1:7	3 years	
9.	Welder (Gas and Elec.)	1:7	2 years	
10.	Motor vehicle Body builder	1:7	2 years	
GROUP No. 4—Electrical Trades Group:				
11.	Electrician	1:7	3 years	Pass in Matriculation examination or its equivalent (S.S.L.C.) or the tenth class under the 10+2 system preferably with Science as one of the subjects.
12.	Lineman	1:7	3 years	} Passed 2 standards below S. S. L. C. or passed the 8th class examination or its equivalent under the 10+2 system.
13.	Wireman	1:7	3 years	
14.	Auto Electrician	1:7	2 years	Passed 2 standards below S. S. L. C. with science or passed the 8th class examination or its equivalent with Science under the 10+2 system.
15.	Electrician (Aircraft)	1:10	4 years	Pass in the Matriculation examination or its equivalent (S. S. L. C.) or the tenth class under the 10+2 system with Science.
16.	Winder (Armature)	1:7	2 years	Pass in Matriculation examination or its equivalent or the 10th Class under the 10+2+3 system.
17.	Cable Jointer	1:2	3 years	Do.
18.	Electrician (Mines)	1:7	3 years	Pass in Matriculation Examination or its equivalent the 10th Class under the 10+2+3 system with Science subject.
GROUP No. 5—Building & Furniture Trades Group:				
19.	Carpenter	1:7	3 years	} Passed 2 standards below S.S.L.C. or passed the 8th class examination or its equivalent under the 10+2 system.
20.	Plumber		3 years	
21.	Brick-Mason/Building Constructor	1:7	3 years	
22.	Brick Layer	1:7	1 year	Passed the 5th class examination
23.	Furniture Maker and Designer	1:4	3 years	Pass in the Matriculation examination or its equivalent (S. S. L. C.) or the tenth Class under the 10+2 system
24.	Cabinet Maker	1:5	3 years	} Passed 2 standards below S.S.L.C. or passed the 8th class examination or its equivalent under the 10+2 system.
25.	Sports Goods Maker (wood)	1:5	2 years	

(1)	(2)	(3)	(4)	(5)
GROUP No. 6—Maintenance Trades Group :				
26.	Millwright/Mechanic	1:2	4 years	Pass in Matriculation examination or its equivalent (S.S.L.C.) or the tenth class under the 10+2 system preferably with Science as one of the subjects.
27.	Mechanic Maintenance (Textile Machinery)	1:7	3 years	Pass in Matriculation or its equivalent (S. S. L. C.) or the tenth class under the 10+2 system.
28.	Mechanic Maintenance (Chemical Plan)	1:7	3 years	Pass in Matriculation examination or its equivalent (S.S.L.C.) or the tenth Class under the 10+2 system with Science as one of the subject.
29.	Mechanic (Dairy Maintenance)	1:7	3 years	} Pass 2 standards below S.S.L.C. or passed the 8th class examination or its equivalent under the 10+2 system.
30.	Sewing Machinc Mech.	1:4	1 year	
31.	Mechanic Mining (Machinery)	1:7	3 years	Pass in Matriculation examination or its equivalent or the 10th class under the 10+2+3 system.
GROUP No. 7—Precision Machining Trades Group:				
32.	Tool & Die Maker	1:2	4 years	Pass in Matriculation examination or its equivalent (S.S.L.C.) or the tenth Class under the 10+2 system preferably with science as one of the subjects.
GROUP No. 8—Instrument Trades Group :				
33.	Instrument Mechanic	1:3	3 years	Pass in Matriculation examination or its equivalent (S. S. L. C.) or the tenth class under the 10+2 system preferably with Science as one of the subjects.
34.	Mechanic Instrument (Aircraft)	1:10	4 years	Pass in the Matriculation examination or its equivalent (S. S. L. C.) or the tenth Class under the 10+2 system with science.
35.	Watch & Clock Repairer	1:4	3 years	Studied upto Matriculation or its equivalent or the 10th class and or the 10+2+3 system with science as one of the subjects. *Passed Matriculation or its equivalent or the 10th class under the 10+2+3 system with science subjects.
GROUP No. 9—Refrigeration & Airconditioning Trade Group :				
36.	Refrigeration and Air-conditioning Mechanic	1:3	3 years	Pass in Matriculation examination or its equivalent (S.S.L.C.) or the tenth class under the 10+2 system preferably with science as one of the subjects
GROUP No. 10—Heat Engine Trades Group :				
37.	Mechanic (Motor Vehicle)	1:4	3 years	} Passed 2 standards below S.S.L.C. or passed the 8th class examination or its equivalent under the 10+2 system. Passed the 8th class examination or its equivalent
38.	Mechanic (Diesel)	1:4	3 years	
39.	Mechanic (Tractor)	1:3	3 years	
40.	Mechanic (Earthmoving Machinery)	1:1	4 years	
41.	Mechanic (Marine Diesel Engine)	1:5	3 years	*Passed in the Matriculation examination or the 10th class under the 10+2+3 system with science subjects.
GROUP No. 11—Draughtsman & Surveyors Trades Group :				
42.	Draughtsman (civil)	1:10	3 years	} Pass in Matriculation examination or its equivalent (S.S.L.C.) or the tenth class under the 10+2 system with Science and Mathematics as elective subjects.
43.	Draughtsman (Mech.)	1:10	3 years	
44.	Surveyor	1:14	3 years	
GROUP No. 12—Construction Trades Group :				
45.	Fitter Structural	1:8	3 years	Pass in Matriculation examination or its equivalent (S.S.L.C.) or the tenth class under the 10+2 system with Science and Drawing as subjects.
GROUP No. 13—Power Plant Trades Group :				
46.	Boiler Attendant	1:2	3 years	} Pass in Matriculation examination or its equivalent (S.S.L.C.) or the tenth class under the 10+2 system with science as one of the subjects.
47.	Steam turbine operator	1:4	3 years	
48.	Switch Board Attendant	1:4	3 years	

(1)	(2)	(3)	(4)	(5)
GROUP No. 14—Printing Trades Group :				
(i) Type Setting Group:				
49. Compositor hand	1:7	2 years	}	Pass in Matriculation examination or its equivalent (S.S.L.C.) or the tenth Class under the 10+2 system, with proficiency in English and any regional language.
50. Lino Operator	1:7	3 years		
51. Mono Operator	1:7	3 years		
52. Mono Gaster	1:7	2 years		
(ii) Printing Group :				
53. Letter Press Machine Minder (Platen and Cylinder)	1:7	3 years		Pass in Matriculation examination or its equivalent (S.S.L.C.) or the 10th Class under the 10+2 system.
(iii) Photo Mechanic Group :				
54. Process Cameraman	1:5	3 years	}	Pass in Matriculation examination or its equivalent (S.S.L.C.) or tenth Class under the 10+2 system with Physics and Chemistry.
55. Retoucher (Lithographic)	1:5	3 years		
56. Engraver	1:5	3 years		
(iv) Binding Group:				
57. Book Binder	1:7	2 years		Passed 2 standards below S.S.L.C. or passed the 8th class examination or the equivalent under the 10+2 system.
(v) Litho-off set Group:				
58. Plate Maker (Lithographic)	1:5	2 years	}	Pass in the Matriculation examination or its equivalent (S.S.L.C.) or the tenth class under the 10+2 system with Physics and Chemistry as subjects.
59. Litho-off set Machine Minder	1:7	3 years		
GROUP No. 15—Hotel and Catering Trades Group:				
60. Cook (General)	1:5	3 years	}	Pass in Matriculation examination or its equivalent (S.S.L.C.) or tenth class under the 10+2 system
61. Cook (Vegetarian) (One more for each 10)	1:10	1½ years		
62. Steward		2 years		
63. Baker or confectional		2½ years		
64. House Keeper	1:1	2 years		
65. Hotel Clerk or Receptionist	„	2 years		
66. Linen Keeper	1:1	1 year		
67. Canteen Services Supervisor	1:1	1 year		
68. Restaurant Hostess	1:1	1 year		
69. Bill Clerk	1:3	1 year		
70. Pantryman	1:2	1 year		
71. Bar Man/Bar Tender	1:2	2 years		
GROUP No. 16—Textile Trades Group:				
72. Weaver	1:50	6 months		Pass 3 standards below S.S.L.C. or passed the 7th class examination or its equivalent under the 10+2 system.
73. Doffer-cum-Piecer	1:50	6 months	}	Passed the 5th class examination
74. Tenter (Drawing & Speed/Fly frames)	1:25	6 months		
75. Winder	1:50	6 months*	}	Passed 2 standards below S.S.L.C. or passed the 8th class examination or its equivalent under the 10+2 system.
76. Knitter (Hosiery)	1:4	1½ years		
77. Printing (Textile)	1:20	6 months		Passed the 8th class examination under the 10+2+3 system or two standards below Matriculation or equivalent. *Passed Matriculation or its equivalent or the 10th Class under the 10+2+3 system with Science & Mathematics.
78. Warper & Sizer	1:25	1 year		Studied up to 8th standard or its equivalent *Passed 8th Class or its equivalent.
GROUP No. 17—Mining Trades Group:				
79. Sirdar (Colliery)	1:7	3 years		Pass in Matriculation examination or its equivalent or the 10th class under the 10+2+3 system. Do.
80. Shot Firer/Blaster (Mines)	1:7	2 years		Passed the 8th class examination or its equivalent
81. Rigger (Engg. & Chemical Industry)	1:7	3 years		

(1)	(2)	(3)	(4)	(5)
GROUP No. 18—Chemical Trades Group:				
82	Attendant (Operator)	1:10	3 years	} Pass in the Matriculation examination or its equivalent (S.S.L.C.) or the 10th class under the 10+2 system with Physics, Chemistry and Mathematics.
83	Instrument Mechanic (Chemical)	1:3	3 years	
84	Laboratory Assistant	1:4	3 years	
GROUP No. 19—Commercial Trades Group:				
85	Book Keeping and Accountancy	1:4	1 year	} Pass in the Matriculation examination or its equivalent (S.S.L.C.) or the 10th class under 10+2 system with Commerce as special subject.
86	Store-keeper (including purchaser)	1:4	1 year	
87	Cashier (General)	1:2	1 year	
88	Sales Asst. (General)	1:7	1 year	} Pass in the Matriculation examination or its equivalent (S.S.L.C.) or the 10th class under the 10+2 system.
89	Clerk (General)	1:20	2 years	
90	Export Assistant	1:2	1 year	
91	Retail Distribution Assistant	1:2	2 years	} Pass in the Matriculation examination or its equivalent or the 10th class under the 10+2+3 system.
92	Library Asst./Clerk	1:4	2 years	
GROUP No. 20—Cutting and Tailoring Trades Group:				
93	Designer and Master Cutter	1:5	2 years	} Pass in the Matriculation examination or its equivalent (S.S.L.C.) or the tenth class under the 10+2 system.
94	Tailor (Men)	1:4	1½ years	
95	Tailor (Women)	1:4	1½ years	} Passed 2 standards below S.S.L.C. or passed the 8th class examination or its equivalent under the 10+2 system
96	Tailor (General)	1:5	2 years	
GROUP No. 21—Agricultural Trades Group:				
97	Agricultural Mechanic	1:7	2 years	} Passed 2 standards below S.S.L.C. or passed the 8th Class examination or its equivalent under the 10+2 system.
98	Farm Organisation and Management	1:7	2 years	
99	Horticulturist	1:7	2 years	} Pass in the Matriculation examination or its equivalent (S.S.L.C.) or the 10th class under the 10+2 system
GROUP No. 22—Leather Craft Trades Group:				
100	Sports Goods Maker (Leather)	1:3	2 years	} Passed 2 standards below S.S.L.C. or passed the 8th Class examination or its equivalent under the 10+2 system.
101	Leather Goods Maker	1:7	2 years	
102	Foot wear Maker	1:4	2 years	
103	Finished Leather Maker	1:3	2 years	
104	Maintenance Mechanic for Leather Machinery	1:3	3 years	
GROUP No. 23—Ship Building Trades Group:				
105	Ship Wright (Steel)	1:7	3 years	} Pass in the Matriculation examination or its equivalent (S.S.L.C.) or the 10th class under the 10+2 system with Science and Drawing.
106	Pipe Fitter	1:7	3 years	
107	Rigger	1:7	2 years	} Passed 2 standards below S.S.L.C. or passed the 8th class examination or its equivalent under the 10+2 system.
108	Gas Cutter	1:7	2 years	
109	Ship Wright (Wood)	1:7	2 years	
110	Painter	1:7	2 years	
111	Boat Builder	1:7	3 years	Passed the 8th class *Passed in the Matriculation examination or its equivalent or the 10th class under the 10+2+3 system.
GROUP No. 24—Electronics Trades Group:				
112	Mechanic, Radio and Radar (Aircraft)	1:10	4 years	} Pass in the Matriculation examination or its equivalent (S.S.L.C.) or the 10th class under the 10+2 system with Science.
113	Electronics Mechanic	1:5	3 years	

(1)	(2)	(3)	(4)	(5)
GROUP No. 25—Photography Trades Group				
114	Photographer	1:4	1½ years	Pass in the Matriculation examination or its equivalent (S.S.L.C.) or the 10th class under the 10+2 system
GROUP No. 26—Iron and Steel Trades Group				
115	Millwright (Rolling Mills)	1:10	4 years	} Passed 2 standards below S.S.L.C., passed the 8th class examination or its equivalent under the 10+2 system. Passed Higher Secondary/PUC with Mathematics, Physics, & Chemistry or equivalent. *Passed +2 under 10+2+3 system with Mathematics, Physics and Chemistry.
116	Brick Layer (Refractory)	1:10	3 years	
117	Furnace operator (Steel Industry)	1:15	2 years	
118	Crane Operator (over loads) Steel (Industry)	1:15	2 years	Passed Matriculation examination or its equivalent or the 10th class under the 10+2+3 system with Physics and Mathematics.
GROUP No. 27—Beautician Trades Group				
119	Beautician	1:3	2 years	} Pass in the Matriculation examination or its equivalent or the 10th class under the 10+2+3 System with Biology as one of the subjects. *Passed Higher Secondary or PUC, or plus two under 10+2+3 system with Biology.
120	Hair Dresser	1:3	2 years	
121	Health & Blinding Asst.	1:3	2 years	
GROUP No. 28—Glass and Ceramic Trades Group				
122	Ceramic Moulder	1:4	2 years	} Passed the 8th class examination under 10+2+3 system or the standard below Matriculation or equivalent.
123	Ceramic Caster	1:4	2 years	
124	Ceramic Kiln Operator	1:4	2 years	
125	Ceramic Press Operator	1:4	2 years	
126	Ceramic Modeller	1:4	2 years	
127	Ceramic Decorator	1:4	2 years	
128	Clay Toy Maker	1:4	2 years	
129	Moulder (Refractory)	1:4	2 years	
130	Glass Blower/Blowing Machine Operator (Glass)	1:4	2 years	
131	Enamel Glazer	1:4	2 years	

*Denotes the desirable qualifications.

ANNEXURE

ENGAGEMENT OF EX-INDUSTRIAL TRAINING INSTITUTE TRAINEES AS APPRENTICES IN TRADES OTHER THAN THOSE TAUGHT IN THE INDUSTRIAL TRAINING INSTITUTES

(A) Credit for 2 Years

The ex-Industrial Training Institute trainees would be entitled to full two years credit towards the total period of training if they join apprenticeship training in the following designated trades connected to the trade in which they had undergone Institutional training. This means that only such ex-Industrial Training Institute trainees who had successfully undergone the two years Industrial Training Institute course may be engaged as apprentices for the remaining period of training in the designated trades as mentioned below. They should satisfy the educational qualification prescribed for the designated trades mentioned in Col. 3.

Sl. No.	Passed out trainees in Industrial Training Institute trades of	Two years credit on engagement as apprentices in the designated trades of
(1)	(2)	(3)
1.	Mechanic (Instrument)	Mechanic (Radio and Radar Air craft)
2.	Mechanic (Radio and Television)	
3.	Mechanic (Radio and Television)	Electronics Mechanic
4.	Mechanic (General Electronics)	
5.	Machinist (Miller)	Machinist
6.	Machinist (S. S. P.)	
7.	Machinist (Composite)	

(B) Credit for 1 Year only

The ex-Industrial Training Institute trainees would be entitled to one year's credit towards the total period of training if they join apprenticeship training in the following designated trades connected to the trade in which they had undergone institutional training. This means that only such ex-Industrial Training Institute trainees who had successfully undergone one year Industrial Training Institute course or the first year of the two years Industrial Training Institute course may be engaged as apprentices for the remaining period of training in the designated trades as mentioned below. They should satisfy the educational qualifications prescribed for the designated trades mentioned in Col. 3 below.

<i>Sl. No.</i>	<i>Passed out trainees in Industrial Training Institute trades of</i>	<i>One year credit on engagement as apprentices in the designated trades of</i>
(1)	(2)	(3)
1. Fitter		1. Millwright/Mechanic (Maintenance) 2. Tool and Die maker 3. Maintenance Mechanic (textile machinery) 4. Mechanic (Dairy Maintenance) 5. Fitter Structural 6. Boiler Attendant 7. Motor Vehicle Body Builder 8. Ship wright (Steel) 9. Millwright (Rolling mills) 10. Mechanic (Mining Machinery) 11. Rigger
2. Turner		1. Machinist (Grinder) 2. Tool and Die Maker
3. Machinist (Composite)		1. Machinist (Grinder)
4. Sheet Metal Worker		1. Motor vehicle Body Builder 2. Ship wright (Steel)
5. Machinist (Grinder)		1. Tool and Die Maker
6. Welder		1. Gas cutter (Ship Building)
7. Electrician		1. Lineman 2. Electrician (Mines) 3. Cable Jointer 4. Winder (Armature)
8. Wireman		1. Auto Electrician
9. Carpenter		1. Motor Vehicle Body Builder 2. Furniture Maker and Designer 3. Cabinet Maker 4. Boat Builder
10. Plumber		1. Pipe Fitter (Ship Building)
11. Brick Mason/Building constructor		1. Brick Layer (Refractory)
12. Mechanic (Motor vehicle)		1. Auto Electrician
13. Mechanic (Diesel)		1. Mechanic (Marine Diesel Engine)
14. Mechanic (Tractor)		1. Machanic (Earth Moving Machinery)
15. Painter		1. Painter (Ship Building)
16. Millwright Mechanic (Maintenance)		1. Ship wright (Steel)
17. Cutting and Tailoring		1. Designer and Master cutter 2. Tailor (General) 3. Tailor (Women) 4. Tailor (Men)
18. Hand Composing and Proof Reading		1. Compositor Hand 2. Lino Operator 3. Mono Operator 4. Mono Caster
19. Printing Machine Operator		1. Letter press Machine Minder (Platen and Cylinder)
20. Manufacture of Foot Wear		1. Foot Wear Maker
21. Watch and Clock Repairer		1. Watch and Clock Maker

(C) Credit for 6 Months

The ex-Industrial Training Institute Electrician trainee would be entitled to six months credit towards the total period of training if they join apprenticeship in the non-industrial training institute trades viz. Steam Turbine Operator and Switch Board Attendant.

Sl. No.	Passed out trainees of Industrial Training Institute in the trade of	Six months credit on engagement as apprentices in the designated trades of
1.	Electrician	1. Steam Turbine Operator 2. Switch Board Attendant

Foot Note : In the case of the designated trade of plumber, the ratio of apprentices to workers other than unskilled workers shall be as follows :

No. of workers other than unskilled		No. of apprentices to be engaged
Upto	2	Nil
	3	2
	4	3
	5	4
	6	5
	7	6
	8	7
	9	8
	10	8

Thereafter the number of apprentices shall increase in the ratio 1:2 i.e. one apprentice for 2 workers other than unskilled workers.

APPENDIX II

Study on the Utilisation Pattern of Apprentices in Kerala

District of Enumeration.....

PART I—IDENTIFICATION PARTICULARS

1. Name ..
2. Address ..
 - (a) Present ..
 - (b) Permanent ..
3. Sex .. Male/Female
4. Age (in completed years) ..
5. Occupation of the Guardian/Father ..
6. Whether Scheduled Caste/Scheduled Tribe .. Yes/No.
If yes, specify ..

PART II

1. Name of the trade in which trained (apprenticeship) ..
2. Name of the establishment in which trained (with place and District) ..
3. Name of the Related Instruction Centre/I.T.I. in which related instruction classes attended ..
4. Duration of apprenticeship (months) ..
5. Month and year of passing the apprenticeship grade test ..
6. (a) Academic Qualifications (below S.S.L.C./S.S.L.C./P.D.C./Higher Qualifications) (specify the course.) ..
- (b) I.T.I. Training details ..
 - (i) Trade ..
 - (ii) Year in which passed ..
 - (iii) Name of the I.T.I. in which trained ..

PART III—ACTIVITY STATUS DURING THE REFERENCE PERIOD

1. Whether employed/unemployed student ..
2. If employed, state employment status (Employer/Employee/self employed/apprentive/unpaid family worker) ..
3. Trade in which employed ..
4. Whether employed in the same trade in which trained .. Yes/No
5. If no, state the trade in which trained ..
6. Average monthly emoluments ..
7. Nature of employment (Permanent/Temporary/Casual worker) ..
8. Whether employed in the same establishment where undergone apprenticeship training ..
9. Name or establishment/firm in which employed (with place and District) ..
10. Whether the establishment/firm is owned by State/Central/Co-operative/local Bodies/Private ..
11. Whether registered with employment Exchange (for getting better jobs) as on the date of enquiry .. Yes/No

PART IV

1. If currently unemployed, how long (in months) ..
2. (i) Whether employed earlier ..
- (ii) If yes, give details ..

Period of employment		Duration of employment	Name of the trade Occupation in employed	Average monthly emoluments (Rs.)	Name and Address of employed establishment
From	To				

3. (i) Whether registered with Employment Exchange ..
 (ii) If yes, give name of Exchange in which registered and month and year of first registration ..
4. Trade in which work is sought ..
5. Whether prepared to accept job ..
 (i) Only within the home town ..
 (ii) Anywhere in the district ..
 (iii) Anywhere in the State ..
 (iv) Anywhere in the country ..
 (v) Abroad ..
- If student: Course attending ..
 Institution ..
 Period ..

PART V

1. How long remained unemployed after leaving the establishment/firm till the first employment (in months) ..
2. Opinion about the apprenticeship training programme ..
- (i) Quality and utility of related instruction .. Good/Satisfactory/Poor
 (ii) Quality of shop floor training .. Good/Satisfactory/Poor

Name and signature of the Investigator ..

Date: ..
 Inspected by ..

Place: ..
 Date: ..

Signature: ..
 Name: ..
 Designation: ..

Detailed Instructions to fill in the Questionnaire

PART I—Items 1 to 6:—Self explanatory

PART II—Item 1 :—The name of the trade in which he/she has undergone the apprenticeship training may be recorded. If he/she has undergone training in more than one trade it may also be given.

Item 2 and 3 Self explanatory

Item 4 :—The actual period of apprentice training may be given here.

Item 5 :—Self Explanatory.

Item 6 :—(a) The highest educational qualification attained by the person (other than the apprenticeship training programme may be given here. If below S. S. L. C. specify the standard upto which studied.

Item 6 :—(b) I.T.I. training details may be recorded separately here.

PART III—Activity Status:

Item 1 :—Please ascertain whether the person is employed or unemployed or is a student studying for some other course on the date of enquiry. For the purpose of this survey, one will be treated as employed if he had worked for wage/salary for at least one day during the reference weeks on some productive economic activity. Also include all persons who had jobs or own enterprises/own profession. Treat all of them as employees even though they were temporarily absent from work during the reference period or reasons of illness, injury or other physical disabilities and weather, strikes or lockout, paid lay off or a reasonable causes including social or religious necessities. The unemployed category consists of all persons who are having no job, of enterprises of their own, and includes all that who had not worked even for a single day in the reference period and are currently looking for a job.

Item 2 :—An employer is one who manages his enterprises by employing one or more persons for wages. An employee is one who works under an employer for wage. A self employed person is one who manages his own business or enterprise without employing any other person. An Apprentice is one who is working under an employer or wages or not and for gaining experience in which he/she is trained under the provision of the Apprentices Act. An unpaid family worker is one who works in the business run by other members of his family without being paid.

- Item 3 :—The name of the trade in which he/she is employed and the designation of the post held may be recorded here.
- Item 4 :—Ascertain whether the person is employed in the same trade in which he/she has undergone the apprenticeship training or not.
- Item 5 :—If the entry in Col. 4 is no, record the trade in which he is trained.
- Item 6 :—The average monthly emoluments including all allowances should be recorded.
- Item 7 :—The nature of employment viz. permanent, temporary or casual worker may be recorded here. Casual worker is one who is paid on daily wage basis.
- Item 8 to 11:—Self explanatory.

PART IV

- Item 1 :—In the case of all currently unemployed persons the period of unemployment in terms of months should be recorded. In the case of persons who were previously employed, the period should be calculated from the date of leaving the last job till the date of enquiry. In the case of persons who are continuously unemployed, it will correspond to the period from the date of passing the apprenticeship trade test till the date of enquiry.
- Item 2 :—Here the details of previous employment in the case of those who are currently unemployed, should be reported in serial order beginning from the first employment to the last employment. The period of apprenticeship should also be treated as employed, if wages or stipend were received, but it should be indicated as apprenticeship.
- Item 3 :—Self explanatory
(i) and (ii)
- Item 4 :—The name of trade in which work is sought should be reported. It may be noted that some of the Craftsmen may be prepared to accept any kind of job. In such cases the answer should be, 'any job'.
- Item 5 :—Self explanatory
(i) to (v) This information should be ascertained from all the Craftsmen who are currently unemployed but previously employed.

PART V

- Item 1 :—This information should be ascertained.
- Item 2 :—Grading should be recorded only after assessing the opinion of the apprentices about related instructions and shop-floor training. It is divided into three groups—viz. good, satisfactory and poor.

APPENDIX III

Age distribution of apprentices

Sl. No.	Name of Trade	Age group				N.A.	Total
		15-19	20-24	25-29	30 & above		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Electrician	..	..	28	11	3	42
2.	Fitter	..	..	38	35	8	81
3.	Boiler operator	..	..	11	6	1	18
4.	Turner	..	..	17	10	1	28
5.	Moulder	..	..	6	11	..	17
6.	Mechanic Motor Vehicle	..	..	10	6	2	18
7.	Machinist	..	..	2	5	..	7
8.	Instrument mechanic	..	..	1	2	4	7
9.	Sheet Metal worker	..	..	9	9	2	20
10.	Welder	..	..	8	5	1	14
11.	Miller	..	..	..	1	..	1
12.	Carpenter	..	..	9	16	1	26
13.	Blacksmith	..	..	4	13	..	17
14.	Wireman	..	..	18	9	..	27
15.	Hotel receptionist	..	..	..	1	..	1
16.	Refrigeration and Air conditioning	..	..	..	1	..	1
17.	Draftsman Mechanical	..	..	..	1	..	1
18.	Building constructor	..	..	..	1	..	1
19.	Tractor Mechanic	..	..	2	..	..	2
Total		..	..	163	143	23	329

APPENDIX IV

Academic qualification of Apprentices

Sl. No.	Name of Trade	Below S.S.L.C.	S.S.L.C.	P.D.C.	Graduate and above	N.A.	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Electrician	..	38	2	..	2	42
2.	Fitter	11	62	..	..	8	81
3.	Boiler operator	..	18	..	..	..	18
4.	Turner	2	24	1	..	1	28
5.	Moulder	11	5	1	..	..	17
6.	Mechanic Motor Vehicle	2	14	..	..	2	18
7.	Machinist	..	7	..	..	..	7
8.	Instrument Mechanic	..	3	..	..	4	7
9.	Sheet Metal Worker	4	14	..	..	2	20
10.	Welder	4	9	..	..	1	14
11.	Miller	..	1	..	..	..	1
12.	Carpenter	16	9	..	..	1	26
13.	Blacksmith	10	7	..	..	..	17
14.	Wireman	3	23	1	..	..	27
15.	Hotel Receptionist	..	..	1	..	..	1
16.	Refrigeration and Air conditioning	..	1	..	..	..	1
17.	Draftsman Mechanical	..	1	..	..	..	1
18.	Building constructor	..	1	..	..	..	1
19.	Tractor Mechanic	1	1	..	..	..	2
Total		64	233	6	..	21	329

APPENDIX V

Occupation status of the Parent/Guardian

Sl. No.	Name of Trade	Culti- vator	Artisans	Services	Labou- rers	Tea- ching	Busi- ness	Pen- sioner	Others	Not specified	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1.	Electrician	8	..	1	..	..	1	2	6	24	42
2.	Fitter	16	..	4	5	..	5	5	7	39	81
3.	Boiler operator	4	..	..	3	..	1	..	2	8	18
4.	Turner	10	..	4	1	1	..	4	2	6	28
5.	Moulder	4	..	..	3	..	1	..	3	6	17
6.	Mechanic Motor Vehicle	4	..	2	1	..	..	..	8	8	18
7.	Machinist	2	..	1	..	..	..	1	..	3	7
8.	Instrument Mechanic	..	..	1	..	..	..	..	..	6	7
9.	Sheet Metal worker	5	..	1	2	..	..	..	1	11	20
10.	Welder	1	..	1	2	..	3	1	1	5	14
11.	Miller	..	..	..	..	..	..	..	..	1	1
12.	Carpenter	7	..	1	6	..	2	..	2	8	26
13.	Blacksmith	8	..	..	4	..	..	1	..	4	17
14.	Wireman	13	..	..	3	1	2	1	2	5	27
15.	Hotel Receptionist	..	..	..	..	..	..	1	..	..	1
16.	Refrigeration and Air conditioning	..	..	1	..	..	..	..	..	..	1
17.	Draftsman Mechanical	..	..	1	..	..	..	..	..	..	1
18.	Building Constructor	1	..	..	..	..	..	..	..	..	1
19.	Tractor Mechanic	1	..	..	..	..	..	1	..	..	2
Total		84	..	18	30	2	15	17	29	134	329

APPENDIX VI

Distribution of Apprentices from weaker section

Sl. No.	Name of Trade	Scheduled Caste	Scheduled Tribe	Total
(1)	(2)	(3)	(4)	(5)
1.	Electrician	..	..	..
2.	Fitter	1	..	1
3.	Boiler operator	..	..	..
4.	Turner	..	..	..
5.	Moulder	2	..	2
6.	Mechanic Motor Vehicle	1	..	1
7.	Mechinist	..	..	..
8.	Instument Mechanic	..	..	..
9.	Sheet Metal Worker	..	..	..
10.	Welder	..	..	..
11.	Miller	..	..	..
12.	Carpenter	..	..	..
13.	Blacksmith	1	..	1
14.	Wireman	..	..	..
15.	Hotel Receptionist	..	..	..
16.	Refrigeration and Air Conditioning	..	..	..
17.	Draftsman Mechanical	..	..	..
18.	Building Constructor	..	..	..
19.	Tractor Mechanic	..	..	..
Total		5	..	5

APPENDIX VII

Study on the utilisation pattern of apprentices in Kerala

(Activity status of apprentices)

Sl. No.	Name of Trade	No. of Employed	No. of Unemployed	Students	Not specified	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Electrician	39	1	..	2	42
2.	Fitter	65	8	..	8	81
3.	Boiler Operator	17	1	..	..	18
4.	Turner	21	5	..	2	28
5.	Moulder	12	5	..	..	17
6.	Mechanic Motor Vehicle	15	1	..	2	18
7.	Machinist	7	..	..	..	7
8.	Instrument Mechanic	3	..	..	4	7
9.	Sheet Metal Worker	17	2	..	1	20
10.	Welder	10	3	..	1	14
11.	Miller	1	..	..	..	1
12.	Carpenter	19	6	..	1	26
13.	Blacksmith	16	1	..	..	17
14.	Wireman	23	4	..	..	27
15.	Hotel Receptionist	1	..	..	..	1
16.	Refrigeration and Air Conditioning	1	..	..	..	1
17.	Draftsman Mechanical	1	..	..	..	1
18.	Building Constructor	1	..	..	..	1
19.	Tractor Mechanic	2	..	..	..	2
	Total	271	37	..	21	329

APPENDIX VIII

Employment status of the apprentices

Sl. No.	Name of Trade	Employer Employee	Self employed	Apprentices	Unpaid family Worker	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	Electrician	39	..	..	..	39
2.	Fitter	63	1	1	..	65
3.	Boiler Operator	16	1	..	..	17
4.	Turner	20	1	..	..	21
5.	Moulder	11	1	..	..	12
6.	Mechanic Motor Vehicle	15	..	..	..	15
7.	Machinist	7	..	..	..	7
8.	Instrument Mechanic	3	..	..	..	3
9.	Sheet Metal Worker	17	..	..	..	17
10.	Welder	10	..	..	..	10
11.	Miller	1	..	..	..	1
12.	Carpenter	16	3	..	..	19
13.	Blacksmith	16	..	..	..	16
14.	Wireman	22	..	..	1	23
15.	Hotel Receptionist	1	..	..	..	1
16.	Refrigeration and Air Conditioning	1	..	..	..	1
17.	Draftsman Mechanical	1	..	..	..	1
18.	Building Constructor	1	..	..	..	1
19.	Tractor Mechanic	2	..	..	..	2
	Total	262	7	1	1	271

APPENDIX IX

Trade-wise distribution of apprentices

Sl. No.	Name of Trade	Employed in the same trade	Employed in allied trade	Employed in jobs not connected with any	Employed in other unskilled jobs	Not specified	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Electrician	36	3	..	..	..	39
2.	Fitter	47	8	6	1	3	65
3.	Boiler Operator	13	3	..	1	..	17
4.	Turner	11	6	4	..	..	21
5.	Moulder	6	5	1	..	..	12
6.	Mechanic Motor Vehicle	10	4	..	..	1	15
7.	Machinist	4	3	..	..	..	7
8.	Instrument Mechanic	3	..	..	..	..	3
9.	Sheet Metal Worker	11	4	2	..	..	17
10.	Welder	8	1	1	..	..	10
11.	Miller	..	..	1	..	..	1
12.	Carpenter	15	..	4	..	..	19
13.	Blacksmith	15	1	..	..	..	16
14.	Wireman	16	4	3	..	..	23
15.	Hotel Receptionist	1	..	..	..	..	1
16.	Refrigeration and Air Conditioning	1	..	..	..	..	1
17.	Draftsman Mechanical	1	..	..	..	..	1
18.	Building Constructor	..	1	..	..	..	1
19.	Tractor Mechanic	2	..	..	..	..	2
	Total	200	43	22	2	4	271

APPENDIX X

Sectors of Employment

Sl. No.	Name of Trade	State	Central	Quasi Government	Co-operative	Local Bodies	Private	Not specified	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Electrician	26	9	..	..	..	4	..	39
2.	Fitter	26	8	1	..	1	25	4	65
3.	Boiler Operator	6	4	..	..	..	7	..	17
4.	Turner	5	3	..	..	..	11	2	21
5.	Moulder	4	1	..	1	..	6	..	12
6.	Mechanic Motor Vehicle	10	..	..	..	..	4	1	15
7.	Machinist	3	2	..	..	..	2	..	7
8.	Instrument Mechanic	1	..	..	..	..	2	..	3
9.	Sheet Metal Worker	9	2	..	..	..	5	1	17
10.	Welder	1	6	..	..	..	3	..	10
11.	Miller	1	..	..	..	..	..	..	1
12.	Carpenter	6	3	..	1	..	5	4	19
13.	Blacksmith	11	2	..	..	..	3	..	16
14.	Wireman	12	6	..	..	..	3	2	23
15.	Hotel Receptionist	1	..	..	..	..	..	..	1
16.	Refrigerat on and Air Conditioning	1	..	..	..	..	..	..	1
17.	Draftsman Mechanical	..	1	..	..	..	..	..	1
18.	Building Constructor	..	..	1	..	..	..	..	1
19.	Tractor Mechanic	1	..	..	..	..	..	1	2
	Total	124	47	2	2	1	80	15	271

APPENDIX XI

Average Monthly Income of wage Earners

Sl. No.	Name of Trade	Below Rs. 100.	Rs. 100 to 200	Rs. 200 to 300	Rs. 300 to 400	Rs. 400 and above	Not specified	Total
1.	Electrician		1	..	1	34	3	39
2.	Fitter		..	5	7	45	8	65
3.	Boiler operator		..	..	..	17	..	17
4.	Turner		..	7	..	9	5	21
5.	Moulder		1	..	..	7	4	12
6.	Mechanic Motor vehicle		..	1	..	10	4	15
7.	Machinist		..	..	2	5	..	7
8.	Instrument Mechanic		..	..	..	3	..	3
9.	Sheet Metal worker		..	1	2	10	4	17
10.	Welder		..	..	2	8	..	10
11.	Miller		..	..	..	1	..	1
12.	Carpenter		..	..	3	11	5	19
13.	Blacksmith		..	..	..	15	1	16
14.	Wireman		..	..	2	17	4	23
15.	Hotel Receptionist		..	..	..	1	..	1
16.	Refrigeration & Airconditioning		..	..	..	1	..	1
17.	Draftsman Mechanical		..	..	..	1	..	1
18.	Building constructor		..	..	..	1	..	1
19.	Tractor Mechanic		..	1	..	1	..	2
Total		Nil	2	15	19	197	38	271

APPENDIX XII

Tenure of Employment of Wage Earners

Sl. No.	Name of Trade	Permanent	Temporary	Casual worker	Not specified	Total
1.	Electrician	33	6	..	..	39
2.	Fitter	43	20	2	..	65
3.	Boiler Operator	11	6	..	..	17
4.	Turner	12	6	2	1	21
5.	Moulder	7	4	1	..	12
6.	Mechanic Motor Vehicle	9	4	..	2	15
7.	Machinist	6	1	..	..	7
8.	Instrument Mechanic	2	1	..	..	3
9.	Sheet Metal Worker	12	5	..	..	17
10.	Welder	7	3	..	..	10
11.	Miller	1	..	..	..	1
12.	Carpenter	11	7	1	..	19
13.	Blacksmith]	13	2	..	1	16
14.	Wireman	19	4	..	..	23
15.	Hotel Receptionist	1	..	..	..	1
16.	Refrigeration & Air Conditioning	1	..	..	..	1
17.	Draftsman Mechanical	1	..	..	..	1
18.	Building Constructor	1	..	..	..	1
19.	Tractor Mechanic	1	..	1	..	2
Total		191	69	7	4	271

APPENDIX XIII

Period of current unemployment

Sl. No.	Name of Trade	Below 6 months	6 months to 1 year	1 year to 2 years	2 years to 3 years	3 year to 4 years	4 years to 5 years	N.A.	Total
1	Electrician	..	..	..	..	..	1	..	1
2	Fitter	1	..	..	1	1	5	..	8
3	Boiler operator	1	..	..	..	..	..	..	1
4	Turner	..	1	..	..	..	4	..	5
5	Moulder	..	..	1	1	..	3	..	5
6	Mechanic Motor Vehicle	..	..	..	..	..	1	..	1
7	Machinist	..	..	..	..	..	..	..	..
8	Instrument Mechanic	..	..	..	..	..	2	1	3
9	Sheet Metal Worker	..	..	..	..	..	..	..	..
10	Welder	..	..	..	..	..	..	..	..
11	Miller	..	..	..	..	..	1	2	6
12	Carpenter	1	1	..	1	..	1	..	5
13	Blacksmith	1	..	..	1	..	3	..	5
14	Wireman	..	..	..	..	..	..	..	..
15	Hotel Receptionist	..	..	..	..	..	..	..	..
16	Refrigeration & Air Conditioning	..	..	..	..	..	..	..	..
17	Draftsman Mechanical	..	..	..	..	..	..	..	..
18	Building Constructor	..	..	..	..	..	..	..	..
19	Tractor Mechanic	..	..	..	..	..	..	..	..
Total		4	2	1	4	1	22	3	37

APPENDIX XIV

Trade-wise distribution of apprentices showing the preference of employment

Sl. No.	Name of Trade	Work sought in the same trade	Work sought in any trade	Any work sought	Not specified	Total
1	Electrician	1	..	..	..	1
2	Fitter	6	..	..	2	8
3	Boiler Operator	..	..	..	1	1
4	Turner	4	..	..	1	5
5	Moulder	1	..	2	2	5
6	Mechanic Motor Vehicle	..	..	1	..	1
7	Machinist	..	..	..	..	..
8	Instrument Mechanic	..	..	..	..	..
9	Sheet Metal worker	1	..	1	..	2
10	Welder	2	..	1	..	3
11	Miller	..	..	..	..	..
12	Carpenter	4	..	2	..	6
13	Blaksmith	..	..	1	..	1
14	Wireman	2	..	2	..	4
15	Hotel Receptionist	..	..	..	..	..
16	Refrigeration & Air conditioning	..	..	..	..	..
17	Draftsman Mechanical	..	..	..	..	..
18	Building constructor	..	..	..	..	..
19	Tractor Mecnanic	..	..	..	..	..
Total		21	Nil	10	6	37

APPENDIX XV

Migration

Sl. No.	Name of Trade	Within the State	Outside the State	Outside the Country	Not specified	Total
1.	Electrician	4	..	..	..	4
2.	Fitter	6	5	8	2	16
3.	Boiler Operator	2	2	1	..	5
4.	Turner	2	5	2	..	9
5.	Moulder	..	2	..	2	2
6.	Mechanic Motor Vehicle	1	..	1	..	4
7.	Machinist	4	1	..	..	5
8.	Instrument Mechanic	..	..	..	1	..
9.	Sheet Metal Worker	3	..	1	..	5
10.	Welder	1	..	..	..	1
11.	Miller	..	..	..	1	..
12.	Carpenter	4	2	..	1	7
13.	Blacksmith	4	1	3	..	8
14.	Wireman	2	2	1	..	5
15.	Hotel Receptionist	..	..	..	..	..
16.	Refrigeration & Air conditioning	..	..	..	..	..
17.	Draftsmen Mechanical	..	..	..	..	..
18.	Building constructor	..	..	..	..	..
19.	Tractor Mechanic	..	..	..	..	..
	Total	33	20	12	6	71

APPENDIX XVI

Mobility of unemployed apprentices

Sl. No.	Name of Trade	With in the home town	Any where in the district	Any where in the State	Any where in the country	Abroad	N.A.	Total
1.	Electrician	..	..	..	..	1	..	1
2.	Fitter	..	..	1	1	5	1	8
3.	Boiler Operator	..	..	..	1	..	..	1
4.	Turner	..	..	..	1	3	1	5
5.	Moulder	..	..	..	4	1	..	5
6.	Mechanic Motor Vehicle	..	..	..	..	1	..	1
7.	Machinist	..	..	..	..	..	..	..
8.	Instrument Mechanic	..	..	..	..	..	..	..
9.	Sheet Metal Worker	..	..	..	..	2	..	2
10.	Welder	..	..	..	..	3	..	3
11.	Miller	..	..	..	..	..	..	..
12.	Carpenter	..	1	1	1	3	..	6
13.	Blacksmith	..	..	..	..	1	..	1
14.	Wireman	..	..	..	2	2	..	4
15.	Hotel Receptionist	..	..	..	..	..	..	..
16.	Refrigeration & Air conditioning	..	..	..	..	..	..	..
17.	Draftsmen Mechanical	..	..	..	..	..	..	..
18.	Building constructor	..	..	..	..	..	..	..
19.	Tractor Mechanic	..	..	..	..	..	..	..
	Total	..	1	2	10	22	2	37

APPENDIX XVII

Employment in the same establishment where undergone training

Sl. No.	Name of Trade	Employed in the same establishment	Employed in the connected establishment	Employed in other establishment	N. A.	Total
1.	Electrician	9	..	27	3	39
2.	Fitter	12	..	44	..	65
3.	Boiler operator	4	..	10	3	17
4.	Turner	2	..	16	3	21
5.	Moulder	1	..	11	..	12
6.	Mechanic Motor Vehicle	5	..	10	..	15
7.	Machinist	1	..	6	..	7
8.	Instrument Mechanic	..	..	3	..	3
9.	Sheet Metal Worker	7	..	9	1	17
10.	Welder	2	..	8	..	10
11.	Miller	..	..	1	4	1
12.	Carpenter	3	..	12	1	16
13.	Blacksmith	7	..	8	1	16
14.	Wireman	1	..	16	6	23
15.	Hotel Receptionist	..	..	1	..	1
16.	Refrigeration & Air Conditioning	..	..	1	..	1
17.	Draftsmen Mechanical	..	..	..	1	1
18.	Building Constructor	..	..	1	1	2
19.	Tractor Mechanic	..	..	..	..	..
Total		54	Nil	185	32	271

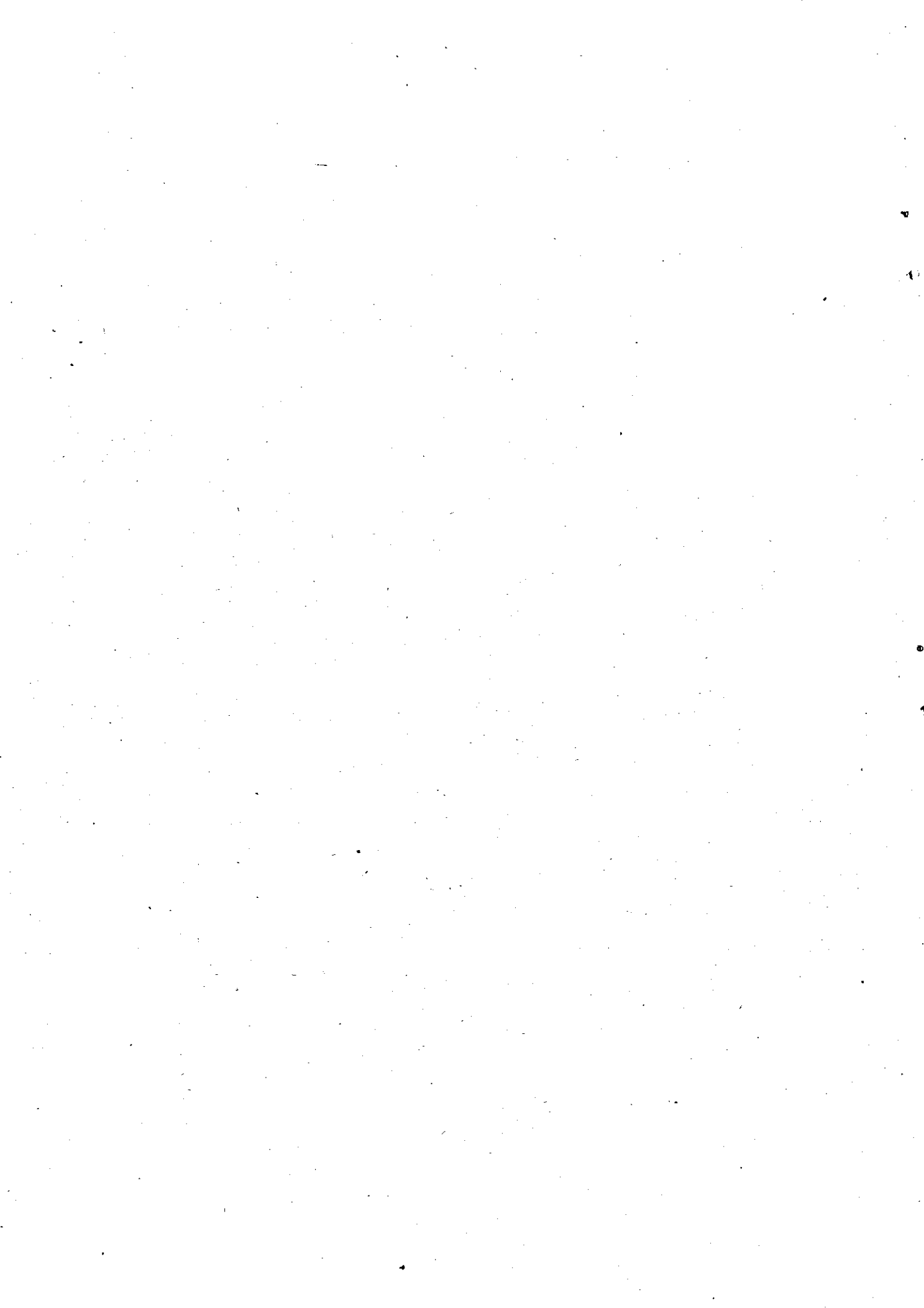
APPENDIX XVIII

Quality and utility of related instruction

Sl. No.	Name of Trade	Related Instruction					Shop floor				
		Good	Satisfactory	Poor	N. A.	Total	Good	Satisfactory	Poor	N. A.	Total
1.	Electrician	37	1	1	3	42	36	1	1	4	42
2.	Fitter	48	21	2	10	81	48	21	2	10	81
3.	Boiler Operator	16	..	..	2	18	16	..	..	2	18
4.	Turner	15	8	2	3	28	15	8	2	3	28
5.	Moulder	13	4	..	..	17	13	4	..	..	17
6.	Mechanic Motor Vehicle	13	4	..	2	18	14	1	1	2	18
7.	Machinist	15	1	..	..	16	6	1	..	..	7
8.	Instrument Mechanic	6	1	..	..	7	3	..	..	4	7
9.	Sheet Metal Worker	3	..	..	4	7	3	..	..	4	7
10.	Welder	12	5	..	3	20	12	5	..	3	20
11.	Miller	13	..	..	1	14	13	..	..	1	14
12.	Carpenter	13	..	..	1	14	13	..	..	1	14
13.	Blacksmith	1	..	..	..	1	1	..	..	..	1
14.	Wireman	15	10	..	1	26	15	10	..	1	26
15.	Hotel Receptionist	11	6	..	..	17	11	6	..	..	17
16.	Refrigeration & Air Conditioning	11	12	..	..	23	11	12	..	..	23
17.	Draftsmen Mechanical	1	1	..	..	2	1	1	..	..	2
18.	Building Constructor	1	..	..	..	1	1	..	..	..	1
19.	Tractor Mechanic	1	1	..	..	2	1	1	..	..	2
20.	N. A.	1	1	..	31	31	..	1	..	31	31
Total		224	71	5	60	360	223	71	6	60	360

**STUDY ON THE PREPARATION OF MIDDLE LEVEL MANPOWER
FOR INDUSTRIES IN KERALA**

A. MEERA SAHIB



Introduction

"Recent economic research has given us a new understanding of the role of education in producing a highly skilled and adaptable labour force, and in providing the basic research and the technological support for rapid and continuing economic growth" * (Gardner Ackley). It was out of the studies of patterns of economic growth of under developed countries, Ackley argues, that economists began to be aware of the significance of investments in human capital.

It is becoming increasingly apparent that a healthy modern economy depends to a large extent upon our ability to adapt to changes in productive capacity resulting from the adoption of better and more efficient machinery. Not only are skilled engineers needed to design and install the equipments and machinery but more technically trained skilled personnel are required to man production and to maintain, to run and to supervise these equipments and machinery.

There are two distinct methods of preparing technically trained middle level manpower for industries. They are (a) Institutional training arrangements through Craftmen Training Scheme (b) Statutory Apprenticeship Training Programme.

Craftsmen Training Programme or Institutional Training Programme has been undertaken to train skilled craftsmen required for industries and improve the employability of job seekers through imparting proper skills.

The Industrial Training Institutes have produced a large number of skilled workers who actually run the machines in factories and are also engaged in the process of production on the shop floor.

Objects of the training scheme

The main objects of the Craftsmen Training Scheme are:—

- (i) to ensure a steady flow of skilled workers in different trades for industry;
- (ii) to raise the quality and quantity of industrial production by systematic training of workers; and
- (iii) to reduce the unemployment among the educated youth by equipping them for suitable industrial employment.

In the present study an attempt is made, to go through the historical development of craftsmen training programme, special training schemes, to highlight the expansion of the Industrial Training Institutes/Industrial Training Centres, their seat strength, maintenance of record cards and employment exchange data on I.T.I. Certificate holders, and the increase in the seat strength of trainees in the I.T.Is. to analyse the imbalance between demand and supply, quality of instruction and modular training etc.

Progress since inception

Vocational Training Programme in India has made commendable strides since its inception. It was in the year 1941 that the training scheme was started as War Technical Training Scheme. During the Second World War, there was acute shortage of skilled personnel for the war. Hence the Central Government started training centres throughout the country for giving technical training, and provide technicians required for the war. Later on, training centres were set up for giving training to the demobilised service personnel to facilitate their resettlement in civil life. In 1950 the Scheme was extended to civilians also. It was first known as "Adult Civilian Training Scheme" and the name was later changed as Craftsmen Training Scheme.

Government of India, in the Ministry of Labour and Rehabilitation appointed a Committee in 1951 called the National Trade Certification Investigation Committee with instructions to prepare a scheme for the establishment of an All India Certification Board which will award the Certificate of Proficiency to Craftsmen in the various Engineering and Building Trades. The report of this committee and also the recommendations of the Training and Employment Service Organisation Committee (known as Shiva Rao Committee) were considered by the Government of India. The Government of India agreed with the findings of both the committees that there was need for setting up a Central Agency for co-ordinating the training programmes in the country for bringing about uniformity of standards and for awarding Certificates of Proficiency in Craftsmanship on an All India basis. In consultation with the State Governments, National Council for Training in Vocational Trades (NCTVT) was set up. This council formulates policies of training programme.

In 1953 Government of India appointed the Shiva Rao Committee to go into the details of the Scheme and to make recommendations for its reorganisation. After detailed examination, the committee recommended the transfer of the administration of the training scheme to the State Governments and to continue the financial assistance. Accordingly the administration of the training scheme was transferred to the State Government on 1st November, 1956.

Industrial Training Institute

At the time of taking over, there were three training centres in the erstwhile Travancore-Cochin State viz. Industrial Training Centre (Pioneer Motor Service), Nagercoil.

Industrial Training Centre (Engineering College), Trivandrum and Industrial Training Centre (Maharaja's Technological Institute), Trichur, with seating capacities of 112, 144 and 120 trainees respectively. On the reorganisation of States, the training centre at Nagercoil was transferred to Madras State and Kerala was left with only 2 training centres with a total seat strength of 264.

* Gardner Ackley, "Policies for the Promotion of Economic Growth"—Seminar on Manpower Policy.

At the end of the Second Five Year Plan (1960-61) there were 5 Industrial Training Institutes and one Industrial Training Centre at Calicut in the State. The Physical target with regard to number of seats achieved by the end of Second Five Year Plan was 2420 as detailed in table 2 below:

TABLE 2

<i>Sl. No.</i>	<i>Name of Institute</i>	<i>Seat strength</i>
(1)	(2)	(3)
1.	I.T.I. Trivandrum	704
2.	I.T.I. Dhanuvachapuram	216
3.	I.T.I. Chalakudy	684
4.	I.T.I. Cannanore	400
5.	I.T.I. Kalamasserry	192
6.	I.T.I. Calicut	224
Total		2420

The trade-wise details are given in Appendix I.

During 1961-62, the number of Institutes increased to 7. One new I.T.I. was started functioning at Palghas from February, 1962. The seat-strength increased to 2764 in 1962. The details are given in table 3 below:

TABLE 3

<i>Sl. No.</i>	<i>Name of Institute</i>	<i>Seat strength</i>
(1)	(2)	(3)
1.	I.T.I. Trivandrum	736
2.	I.T.I. Chalakudy	716
3.	I.T.I. Cannanore	464
4.	I.T.I. Dhanuvachapuram	216
5.	I.T.I. Calicut	280
6.	I.T.I. Kalamasserry	288
7.	I.T.I. Palghat	64
Total		2764

The trade-wise details are given in Appendix II.

Three new Institutes were started in 1963-64 at Quilon, Chengannur and Ettumanoor. Thus the number of Institutions raised to 10. The seat-strength of the trainees were also increased to 4264 at the end of March 1964. The trade-wise details are given in Appendix III. The seat-strength was raised to 5432 by the end of March 1965 and to 5464 by the end of March 1966 i.e. by the end of the Third Five Year Plan. The Institute-wise increase in the seat-strength during the Third Five Year Plan is given in table 4 below:

TABLE 4

Seat strength during Second and Third Five Year Plans

<i>Sl. No.</i>	<i>Name of the Institute</i>	<i>Seats at the end of the Second Five Year Plan</i>	<i>Increase during the Third Five Year Plan</i>	<i>Third Plan period</i>	<i>Total at the end of the Third Five Year Plan</i>
(1)	(2)	(3)	(4)	(5)	(6)
1.	I.T.I. Trivandrum	704	144	1961-62 344	848
2.	I.T.I. Dhanuvachapuram	216	200	1962-63 388	416
3.	I.T.I. Quilon	..	448	1963-64 1112	448
4.	I.T.I. Chengannur	..	432	1964-65 1168	432
5.	I.T.I. Ettumanoor	..	432	1965-66 32	432
6.	I.T.I. Kalamasserry	192	440		632
7.	I.T.I. Chalakudy	684	124		808
8.	I.T.I. Cannanore	400	216		616
9.	I.T.I. Calicut	224	112		336
10.	I.T.I. Palghat	..	496		496
Total		2420	3044	3044	5464

The duration of the training in I.T.Is. was 18 months followed by 6 months in-plant training. The Government of India on recommendation of the N.C.T.V.T. decided to change the duration of the course to one year for certain trades and two years for other trades dispensing with in-plant training. This change was brought into effect from August 1966. The details of one year trades and two year trades are given in Appendix IV.

The seat-strength by the end of March 1967 was 6127. The trade-wise details are given in Appendix V. By the end of March 1968, the seat-strength stood at 6604. The details are given in Appendix VI. Two new I.T.Is. were started functioning from August 1972, one at Attingal and the other at Areacode in Malappuram District with seat-strength of 224 and 80 respectively. The total number of Institutions raised to 12 with a total seat-strength of 7016. The trade-wise details are given in Appendix VII. At the end of Fifth Five Year Plan (1973-74), the seat-strength reached to 7048. The trade-wise details are given in Appendix VIII.

There was no change in the seat-strength during 1974-75. The seat-strength raised to 7272 by the end of March 1976. The details are given in Appendix X. By the end of March 1977, the seat-strength reached to 7492. The details are given in Appendix X. One new I.T.I. was started in August 1977 at Kattappana in Idukki. The seat-strength increased to 7968 by the end of March 1977. The details are given in Appendix XI. In August 1978 two new I. T. Is were started, one at Pallikkathode and the other at Kazhakuttam (exclusively for women). The number of Institutions raised to 15 with seat-strength of 8636. The details are given in Appendix XII. At present there are 15 I. T. Is. (one exclusively for women) with a seat-strength of 8652. The details are given in Appendix XIII. Training is now imparted in 4 non-Engineering trades and 25 Engineering trades of which 14 trades are of one year duration and 15 are of two years duration. The details are given in Appendix XIV.

The Institutes at Dhanuvachapuram, Trivandrum, Attingal, Quilon, Chengannur, Ettumanoor, Kalamassery, Chalakudy, Palghat and Cannanore are now accommodated in Government owned buildings. The Institute at Areacode in Malappuram District is housing in Semi-permanent buildings. The other Institutes viz. Institutes at Calicut, Kattappana and Pallikkathode and Women I.T.I. at Kazhakuttam are housing in private buildings.

Private Sector Training Centre :

Training Institutes under private management offering training facilities in Engineering trades were recommended by the State Council for Training in Vocational Trades for grant of affiliation to the National Council for Training in Vocational Trades on being satisfied that:—

- (a) the tools and equipments provided by the Institutes are as per scale prescribed by the Directorate General of Employment and Training;
- (b) the space is adequate ;
- (c) the syllabus is the same as adopted for the trades in I.T.Is. ; and
- (d) the standard of training is satisfactory.

At present (1980-81) there are 158 private I. T. Is. with a seat-strength of 19,080. The list of Private I.T.Cs. with the details of Trade and number of seats are given in Appendix XV.

Diversification

A new trade viz. Electronics was introduced from August 1973, in the training programme increasing the total number of Engineering trades from 24 to 25. The diversification of training scheme took place during this period by the introduction of popular and new trades. During 1976 another new trade viz. Stenography was introduced by the Industrial Training Department. This was meant to meet the large demand for trained graduate Stenographers in Banks, Commercial establishments, Industrial establishments etc.

Thus the Industrial Training Department had already embarked on diversification of training scheme by introducing popular and new trades in place of unpopular trades. Most of the trades are confined to the development of basic skills whereas specialised skills are in great demand. The new industries that are coming up employ only persons trained in trades like Mechanics (Ref. & A. C.) Instrument Technology, Electronics, Radio & Television, Advanced Welding etc. Therefore diversification of trades have been made in the Industrial Training Institute by the introduction of new units and by the reduction and substitution of unpopular trades. Newer type of skills are also required for certain types of industries that are emerging. A few examples of such skills are horology, agricultural engineering trades, metrology, boat building, Film technology etc. Tailor made courses need to be introduced in these and connected areas.

Financial aspects of the training scheme

The scheme was originally implemented directly under the control of Government of India. The expenditure was met by the Government of India and the State Government in the ratio 60:40. This financial arrangement viz. sharing of expenditure in the ratio 60:40 continued till 1968-69. From 1969-70, the expenditure is being met by

the State Government. The financial assistance is granted to the State in the form of bulk grant in consultation with the Planning Commission and the Ministry of Finance (Para 37-4 of Training Manual). The details of provision and expenditure from 1957-58 to 1981-82 are given in Table 5 below :

TABLE 5

Details of Budget Provision and Actual Expenditure

(Rs. in lakhs)

Year	Plan		Non-Plan	
	Budget provision	Expenditure	Budget provision	Expenditure
(1)	(2)	(3)	(4)	(5)
	13.783	3.766		
1957-58	16.749	12.777		
1958-59	21.650	17.782		
1959-60	29.754	23.518		
1960-61				
	81.936	57.843		
1961-62	24.985	7.084	14.990	13.012
1962-63	30.366	21.299	14.419	12.412
1963-64	77.448	47.94	13.815	12.252
1964-65	66.720	57.552	13.091	12.495
1965-66	61.490	43.768	16.507	13.662
	261.009	177.397	72.882	63.833
1966-67	42.744	44.074	35.213	34.965
1967-68	50.000	30.065	42.747	39.116
1968-69	49.922	25.425	48.316	41.838
1969-70	15.000	9.686	58.034	53.069
1970-71	19.150	7.403	58.900	56.855
1971-72	19.780	15.637	58.441	62.687
1972-73	7.850	11.059	67.887	63.838
1973-74	30.676	24.374	73.960	72.413
1974-75	21.773	11.498	85.398	90.870
1975-76	15.970	9.496	116.994	112.566
1976-77	21.050	21.159	116.682	121.568
1977-78	40.470	32.676	130.817	130.024
1978-79	42.001	59.168	142.701	143.687
1979-80	22.000	36.234	166.700	174.523
1980-81	48.815	43.270	180.793	181.593
1981-82	59.450		190.689	

Statutory Apprenticeship Training Programme*

The Apprentices Act, 1961 seeks to regulate and enforce the system of training throughout the country. The Apprentices Act was implemented in Kerala in 1963. The Apprentices are assigned to trades in the establishment in proportion to the number of skilled workers in the establishment. The duration of the training varies from 6 months to 4 years. The trainees who have passed out of the I.T.Is are entitled to a corresponding rebate for the period of institutional training successfully undergone by them wherever it is admissible. The apprentices are usually engaged twice in a year. Every Apprentice has to execute a contract of Apprenticeship and the same will be registered by the State Apprenticeship Adviser or by the authority authorised by him. The Apprenticeship Training is imparted in accordance with the standard prescribed by the Central Government in consultation with the Central Apprenticeship Council. Every employer shall make suitable arrangements in his workshop for imparting practical training every apprentice has to be given related instruction in accordance with the programme approved by the State Apprenticeship Adviser. During the period of practical training in the appropriate trade and it is obligate any on the part of the Government to give related instructions to the Apprentices. Government, have established 7 Related Instruction Centres at Trivandrum, Quilon, Alleppey, Kottayam, Kalamassery, Trichur and Calicut. In other places the R. I. Classes are conducted at the I T Is.

*For further details please refer, 'A study on the Statutory Apprenticeship Training Programme in Kerala. Published in Manpower Studies—Vol. II. Bureau of Economics & Statistics, 1979.

Facilities for the Basic Training exist in the I.T.Is. for 23 Engineering Trades. In catering trades basic training for 4 Trades are given in the Food Craft Centre, Kalamassery. Facilities do not exist at present for basic training in Printing trades, textile Trades and Chemical trades. The basic training of these trades is conducted at the establishments. 131 trades have been designated under the Apprenticeship Act. 4,634 Apprentices are now undergoing training.

Other schemes

1. Scheme for the Training of educated unemployed :

This was a scheme sponsored by Government of India. The main aim of the scheme was to train educated unemployed persons with a view to increase their job opportunities. The training was conducted at 11 centres. 400 trainees were admitted to this course. The training was started in January 1957. The duration of the course was for nine months. The first course was completed in September 1957 in which, 94 trainees were passed. For those who failed, a second batch of training was conducted for six months from March 1958.

2. Work and Orientation scheme—Kalamassery :

This scheme was sponsored by Government of India for solving the problems of the educated unemployed persons in the state. The object of the scheme was to enable the trainees to become useful entrepreneurs. The duration of the course was six months. The first course was started in March 1957 with a strength of 250 trainees, the trainees were grouped into different trade categories like Sheet Metal Worker, Electric Wing, Spinning and Weaving, Accountancy and Book Keeping. Theoretical and Practical Training were given. The first course was completed by September 1957. Training was imparted to a second batch of 250 candidates. This course was concluded in March 1958.

3. Revised scheme of work and Orientation :

The original scheme of work and orientation was modified to suit with the I.T.I. Training. 100 seats under the revised scheme of work and orientation were introduced at Kalamassery from 1959. In addition to the trade training, training in business and Co-operation were also imparted. For this scheme 100 seats each were introduced at Trivandrum and Chalakudy with effect from October 1960. These seats were merged with Industrial Training Institutes in February 1962.

4. Accelerated training Programme :

Accelerated training Programme for training of Craftsmen in Engineering Trades, Wireless Operators and Motor Drivers were taken up from 1st February 1963 to meet the urgent and large demand of the Defence Service consequent on the declaration of the state of emergency in 1962. The duration of the course was 5 months. The course was started from 1st February 1963 and completed on 31st July 1963. 2787 civilians were trained in 15 trades making use of the facilities in 7 I. T. Is., 12 J. T. S., 4 Engineering Colleges and one Government Industrial Training School.

5. Production Centres :

Sanction was accorded for starting Production centres attached to the I.T.Is. with a view to improving the skill of the I.T.I. Certificate holders and for meeting the requirements of Government Departments such as Schools, Hospitals, Kerala State Electricity Board etc, for various finished items like School furniture, Hospital furniture, Office furniture, Electric line materials etc. Government sanctioned one such Production centre attached to six I.T.Is. at Kalamassery, Chalakudi, Palghat, Cannanore, Ettumanoor and Quilon.

The Production centres attached to the I.T.Is. at Chalakudi, Cannanore and Kalamassery were started for the production of wooden furniture and the Production Centres at I.T.Is., Quilon, Ettumanoor and Malampuzha were started for the production of steel furniture. The products manufactured in the Centres were used by the Government in Hospitals and other Departments.

The Centres were started with trainee workmen on a monthly stipend of Rs. 100. They were recruited for a period of six months. As they had attained enough skill and experience in the trades and turned out every good work, they were allowed to continue beyond the period of 6 months. They were paid stipend at the rate of Rs. 100 per month for those who have not completed 6 months service, at the rate of Rs. 125 p.m. to those who have completed 6 months services, and at the rate of Rs. 150 per mensem to those who have completed one year service.

The trainees (improvers) were continued from time to time only on an adhoc basis and they were not treated as workmen.

The Government of India had not approved the scheme of starting the production centres as it did not fit in with the pattern of the scheme of intensive training to Ex-I.T.I. Personnel approved by the Director-General of Employment and Training. Yet in the subsequent years provision was made for the continuance of the Scheme. But in December, 1972 Government of India specifically directed the State Government to re-orient the scheme of Production Centres in the form of the scheme for the intensive training of I.T.I. boys and Apprentices for self-employment suggested by the Director-General of Employment and Training.

Government ordered that the Production Centres started as adjunct to the I.T.Is. should be wound up with effect from 28-2-1973.

Special Training Scheme

(a) Advanced Vocational Training System :

An advanced vocational training system under the assistance of UNDP/ILO has been implemented at I.T.I., Kalamassery. This system could provide as with a cadre of highly skilled craftsmen. This scheme started on All India basis involved UNDP outputs touching 65 Millions (Rs. 52 crores). As a term development objective, it sought to push through a couple of plans which had not been able to reach the take off stage for various reasons.

These comprised the setting up of an apex vocational training centre and a satellite training centre. The long range objective will be to accelerate industrial development and through at national economic and social development by making available to some of the critical areas of industry the highly skilled technicians needed to improve production, quality and quantity. Key export oriented industries will receive special focus. By the time the scheme is completed, a chain of industrial training Institutes through out the country, will be modernised and side by side, 22 Central Training Institutes will be given a new look. Sixteen select Industrial Training Institutes will be up-graded in the more industrialised states to become "Models". I.T.Is. will provide training facilities in the more critically needed trades. They will be expected to meet local demands.

All possible attempts are to be made to ensure that the courses in the I.T.Is. and the A.T.Is. correspond to the rapidly changing needs of industry and are co-ordinated with the training facilities available at other institutions. Each A.T.I. will serve as a regional centre for several model I.T.Is. A string of new courses will be started for those who qualify for the A. T. Is.

At the I.T.Is. too, a number of interesting course have been introduced eg. Indian Standard and Blue-print reading, Mechanical and Electrical Maintenance and Marine Diesel operation, Welding heavy plates and Pressure Vessels. The first course of this advanced vocational training system started on 23-6-1977.

The following trades were proposed for this course at I.T.I., Kalamassery. (1) Tool and Die Maker (2) Indian Standard and Blue Printing (3) Machine Tool Maintenance (4) Advanced Welding (5) Electrician and Maintenance of Domestic appliance (6) Maintenance of Mechanic Diesel Engine. The details of A.V.T., Scheme at A.V.T.S. Kalamassery are given in Table 6 below :

TABLE-6

Sl. No.	Name of Trade	No. of trainees already trained			
		1977	1978	1979	Total
(1)	(2)	(3)	(4)	(5)	(6)
1.	Indian Standards and Reading of Drawing	9	23	19	51
2.	Advance Welding	..	5	21	26
3.	Electrical Maintenance	..	..	20	20
4.	Maintenance of Domestic appliances (Electrical)	..	4	18	23
Total		9	32	79	120

(b) Scheme for Scheduled Caste and Scheduled Tribe :

This is a special scheme for the benefit of scheduled caste and scheduled tribe candidates. The scheme is to conduct intensive training in popular trades exclusively for scheduled caste and scheduled tribe candidates. The scheme had been sanctioned in 1978. The details are given in Table 7 below :

TABLE 7

Name of Institute	Trade	Duration of course	Sanctioned strength	No. on rolls
(1)	(2)	(3)	(4)	(5)
I.T.I. Trivandrum	M.R.A.C.	2 years	16	12
I.T.I. Attingal	M.R.T.	"	16	14
I.T.I. Chengannur	M.R.A.C.	"	16	8
I.T.I. Ettumanoor	Wireman	"	16	8
I.T.I. Kalamassery	M.M.V.	"	16	14
I.T.I. Chalakudy	Stenography	1 year	16	9
I.T.I. Palghat	Wireman	2 years	16	1
I.T.I. Calicut	Electronics	"	16	7
I.T.I. Cannanore	M.R.A.C.	"	16	1
Total			144	74

The trainees are eligible for Stipend of Rs. 80 per trainee per month. At present there are 47 trainees undergoing training in this scheme in various I.T.Is.

(c) *Training Scheme for trainees sponsored by the Kerala Labour Welfare Fund Board :*

This is a scheme for imparting training to the children of workers by utilising Labour Welfare Fund. The training is given in the Industrial Training Institutes. The scheme had been sanctioned in 1978. The expenditure incurred by this department is reimbursable by the Kerala Labour Welfare Fund Board. The trade were introduced in August 1978. The details of the scheme at the beginning is given in Table 8 below :

TABLE 8

Sl. No.	Name of Institute (ITI)	Trade	No. of seats	Duration of the course
1.	Dhanuvachapuram	Wireman	16	2 years
2.	Trivandrum	Plumber	16	1 year
3.	Attingal	Stenography	16	1 year
4.	Quilon	Mch. Diesel	16	1 year
5.	Chengannur	Mech. M. V.	16	2 years
6.	Ettumanoor	Fitter	16	2 years
7.	Ettumanoor	Welder	16	1 year
8.	Kalamassery	Fitter	16	2 years
9.	Chalakydy	Plumber	16	1 year
10.	Palghat	Electrician	16	2 years
11.	Malappuram	D/Civil	16	2 years
12.	Calicut	M. R. A. C.	16	2 years
13.	Cannanore	Electronics	16	2 years
Total			208	

(d) *Post I.T.I. Course :*

This is a scheme for giving intensive training to I.T.I. certificate holders to make them proficient enough undertake work independently in their own field of occupation. Government sanctioned a scheme for starting special training course to I.T.I. certificate holders in plumber trade at I.T.I. Trivandrum and Kalamassery with 20 trainees each.

The trainees will be paid stipend of Rs. 150 per month per trainee. The scheme started in January 1980 at Trivandrum with 17 trainees and at Kalamassery with 20 trainees.

(e) *Evening Classes :*

The scheme is intended to give theoretical training to Industrial workers. There was already a scheme at I. T. I. Kalamassery Government have sanctioned in the scheme at I.T.I.s., Trivandrum and Calicut. The scheme was started in December 1979. The details are given in Table 9 below :

TABLE 9

Sl. No	Name of I.T.I.	Trade	Sanctioned strength	No. of rolls
(1)	(2)	(3)	(4)	(5)
1.	Kalamassery	(a) Electrician	25	24
		(b) Fitter	25	24
2.	Calicut	(a) Electrician	25	13
		(b) Fitter	25	6
3.	Trivandrum	(a) Electrician	25	15
		(b) Fitter	25	25
Total			150	107

(f) *Intensified Training Scheme :*

The aim of the scheme is to impart short term job oriented intensive training to the I.T.I. Certificate holders to make them proficient enough in their respective trades to undertake work independently. This was taken up during 1973-74 on the guide lines given by Government of India.

The training of the first batch commenced on 1st August. The training was given to 280 I.T.I. certificate holders for a period of six months. The details are given in Table 10 below:

TABLE 10

Sl. No.	Trade	Ettumanoor	I. T. I. Kalamassery	Palghat	Cannanore	Chalakydy	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Carpenter	..	50	10	20	20	100
2.	Fitter	10	10	20	10	10	60
3.	Blacksmith	10	10	10	10	..	40
4.	Welder	10	10	10	..	..	30
5.	Sheetmetal worker	10	..	20	..	..	30
6.	Painter	..	..	10	..	..	10
Total		40	80	80	40	30	270

The training for the second batch consisting of 246 trainees was started in 1974 for a period of six months.

(g) *Artificial Limb Making under Intensified training scheme:*

This scheme provide training to I.T.I. certificate holders in Artificial Limb Making. The scheme started in February 1977 at the artificial Limb Centre, Medical College, Trivandrum. 15 trainees in the trades of Fitter, Blacksmithy, Carpentry and Sheetmetal Workers were admitted in the first batch.

(h) *Part-time classes for industrial workers:*

Under the programme "part-time classes for industrial workers" classes are arranged for industrial workers in the I.T.Is. for those who have not had the benefit of systematic training in the institutions. The instructions cover trade theory, workshop calculation and engineering drawing pertaining to the trades. The period of training is two years. Any worker in an industrial establishment, who is literate enough to follow the classes and who is sponsored by his employer is eligible for admission. As the end of the course tests are conducted by the Directorate of Industrial Training and successful candidates awarded with certificates. The facility for part-time classes for industrial workers are now available at Kalamassery, Trivandrum and Calicut. This course was started during 1958-59 with a seat strength of 50 at Industrial Training Institute, Kalamassery. The course was extended to Trivandrum during 1959-60 with a seat strength of 50. During 1979-80 the total seat strength in Kalamassery, Trivandrum and Calicut was 150.

Employment and Unemployment

Maintenance of Record Cards:

In para 37 (1) of the Training Manual issued by the DGE and T, Government of India, contemplates maintenance of record cards in respect of the ex-trainees who have been able to secure employment. The system of maintenance of record cards existed in the Industrial Training Institutes. But this did not yield the desired results as the passed out trainees did not care to furnish information regarding their employment.

Employment Exchange Data

The only source of information pertaining to the I.T.I. certificate holders is the live register data available in the Employment Exchanges since the discontinuation of record cards. The trainees of the I.T.Is. register their names in the Employment Exchanges immediately after the trade test. The following table (TABLE. 11) reveal the details of I.T.I. certificate holders registered with the employment exchange from 1970 to 1980.

TABLE-11

Year	No. of I.T.I. Certificate holders in the Live Register
(1)	(2)
1970	8380
1971	9894
1972	11540
1973	10003
1974	16888
1975	20163
1976	20747
1977	18804
1978	21946
1979	25155
1980	27293

It is a matter of fact that there is a steady increase in the number of unemployed certificate holders registered with the Employment Exchanges. It may not be true that all these I.T.I. certificate holders registered with the employment exchanges are un-employed. The passed out trainees who got employment do not inform the employment exchange about their employment particulars in time perhaps, it may help them to secure better employment. Hence the live register of employment exchanges of the State do not reflect the real position of unemployment among I.T.I. certificate holders.

Increase in the Number of Seats in the Industrial training Institutes

The seat strength at the Industrial Training Institutes during 1960-61 was 2420. At the end of March 1964 the seat strength increased to 3969. The following table shows the intake and outturn of trainees in different trades in Kerala from 1965-66 to 1974-75.

TABLE 12

Seat strength of trainees in the I.T.Is. in Kerala from 65-66 to 1974-75

Year	Seat strength of I. T. Is.
1965-66	4996
1966-67	6127
1967-68	604
1968-69	6654
1969-70	6236
1970-71	6246
1971-72	6620
1972-73	7016
1973-74	7048
1974-75	7048

There was an increase of about 300% in the number of seats in the Government Industrial Training Institutes in Kerala during the period from 1962 to 1974-75. If we consider the increase in the number of private Industrial Training Centres and their seat strength the increase is more. The following table shows the district-wise data regarding the increase in the seat strength of Industrial Training Institutes from 1962 to 1975.

TABLE 13

Name of the District	No. of I.T.Is		No. of trainees	
	1961-62	1974-75	1961-62	1974-75
(1)	(2)	(3)	(4)	(5)
Trivandrum	2	3	920	1872
Ernakulam	1	1	192	704
Trichur	1	1	684	656
Cannanore	1	1	400	680
Calicut	1	1	224	376
Quilon	..	1	..	648
Alleppey	..	1	..	648
Kottayam	..	1	..	632
Idukki	..	..	..	..
Palghat	..	1	..	672
Malappuram	..	1	..	160
Total	6	12	2420	7048

Imbalance between demand and supply :

It is very difficult to assess with certainty whether the industry's demand for skilled personnel has been completely met. Secondary evidence however, shows that there were a number of vacancies in industry for skilled craftsmen for which suitable candidates were not available while a large number of persons who were trained as craftsmen were unemployed and seeking jobs. The reason for such imbalance seems to be in the absence of any machinery for estimating the specific needs of industry and co-ordinating the training programme in an integrated manner. There must be some kind of a linkage with the training programme and the development programme of the industry. In other words the manpower needs of the industry should be closely linked with the craftsmen training programmes. This can be achieved only by studying the quantum and quality of current and prospective employment industry-wise and occupation-wise with a view to co-ordinating manpower needs and employment opportunities with the output of educational system and available technical training facilities. This type of Area Skill Surveys are of significant value in initiating measures for tackling problems of unemployment and formulating schemes for expansion of self-employment, career advice, training and apprenticeship, job development, employment market information programme etc. This type of manpower studies can be undertaken to assess the

current manpower situation, forecast industry's needs for trained personnel in terms of quality and quantity and to recommend the size of training programme accordingly. In arriving at the industry's requirement, the machinery should be taken into consideration not only the needs of existing industrial establishments but also the needs of industries which are likely to be set up on the near future.

This type of Area Skill Surveys thus fulfil the long felt need for such data as is essential for tackling problems of employment at area of grass root level. Of the several methods designed to estimate future manpower needs, Area Skill Surveys have some distinct advantages. Firstly, skill surveys aim at eliciting information by a direct approach to employers and training institutions instead of attempting manpower projections on the basis of assumed growth rates and targets. Secondly, in view of the well known fact that skilled manpower excluding perhaps high-level manpower has limited mobility Area Skill Surveys furnish data which is more meaningful for manpower planning at the area level.

Quality of Instructions

The I.T.Is. in the State need substantial strengthening in order to ensure the quality of the instructions imparted in these Institutes. The ban of many I.T.Is. seems to be inadequate facilities. This aspect could be considered in two parts (a) improving the existing facilities (b) replacement of worn out/obsolete equipment and introduction of modern facilities. It has been observed by many that machines available in the training institute are out of commission due to want of proper maintenance. There is an immediate need for provision of maintenance funds and stocking of necessary spares as well as provision of maintenance personnel. In the case of raw materials and consumables, the requirements invariably exceed availability. Proper facilities for issue and maintenance of tools also seem to be not existent.

A sound replacement programme of worn out/obsolete facilities has become important. There is no point in training the young boys on out moded equipments and then expect them to become Productive performers in industry using modern equipment. Formulation of a policy for determining the effective life of new machines facilities is necessary, particularly since a trainee is apt to make mistakes while learning and damage the equipment.

Modular Training

The concept of modular training has been gaining round in many countries primarily because of its flexibility. This enables permutations and combinations of the skill modules depending upon industry's requirements and allows spacing in time according to the needs of the trainee. It would also help obviate the complaint of industry regarding the rigidity of a full scale programme of three years. Western and even the Latin American countries have gone a long way in introducing this concept. With the emphasis on setting up industries in rural areas, the modular concept can be introduced in pump repairs, diesel engine repairs, maintenance of hand and power sprayers etc.

Conclusion

Vocational training in India has made commendable strides since its inception. In 1950-51 there were only 63 Industrial Training Institutes/Centre giving training to 8295 trainees. During 1960-61, it increased to 163 and 36850 respectively. The number of Institutes/Centres in India again increased to 357 during 1970-71 with 1,08,689 trainees and about 367 in 77-78 with a trainee strength of about 1,66,000. Evaluation of middle level manpower requirements and the number of Industrial Training Institutes/Centres according to the emerging need is a must. The training programme in India is serving as an inspiration for other developing countries embarking on the process of industrialisation. The time is now ripe for us to revamp the training schemes and in a new era in our efforts.

APPENDIX I

Number of seats at the end of the second plan (1960-61) in the Industrial Training Institute and Industrial Training Centre

Sl. No.	Trade	I. T. I. Trivandrum	I. T. I. Chalakudy	I. T. I. Cannanore	I. T. I. Kalamasery	I. T. I. Dhanuachapuram	I. T. I. Calicut	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1.	Blacksmithy	32	16	32	..	32	..	112
2.	Carpentry	64	80	32	32	32	32	272
3.	Draughtsman Mechanic	32	32	32	..	32	..	128
4.	Draughtsman Civil	32	32	32	..	..	..	96
5.	Electrician	96	80	32	32	32	32	304
6.	Fitter	96	112	32	32	..	..	304
7.	Lineman and Wireman	32	64	32	32	..	..	160
8.	Machinist	48	36	24	..	24	24	156
9.	Motor Mechanic	32	32	32	..	..	32	128
10.	Moulder	..	16	..	..	32	32	80
11.	Plumber	32	..	..	..	..	..	32
12.	Sheet Metal worker	64	64	16	32	..	..	176
13.	Surveyor	32	32	32	..	..	..	96
14.	Turner	48	24	24	..	..	24	120
15.	Welder	64	64	16	32	..	16	192
16.	Mechanic Radio and T. V	..	..	32	..	..	..	32
17.	Mechanic I. C. E.	..	..	..	..	..	32	32
	Total	704	684	400	192	216	224	2420

Source : Directorate of Training

APPENDIX II

Details of seat strength in the I. T. Is. at the end of March 1962

Sl. No.	Trades	I. T. I. Trivandrum	I. T. I. Chalakudy	I. T. I. Cannanore	I. T. I. Dhanu- achapuram	I. T. I. Calicut	I. T. I. Kalamas- sery	I. T. I. Palghat	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1.	Blacksmithy	32	16	32	32	..	..	..	112
2.	Carpentry	64	80	32	32	32	32	16	288
3.	Draughtsman (Civil)	32	32	32	..	..	..	..	96
4.	Draughtsman (Mechanic)	32	32	32	32	16	..	..	144
5.	Electrician	96	80	32	32	32	64	..	336
6.	Fitter	96	112	64	..	32	64	16	384
7.	Machinist	48	36	24	24	24	..	..	156
8.	Mechanic (I. C. E.)	..	..	..	32	..	..	..	32
9.	Surveyor	32	32	32	..	..	..	..	96
10.	Mechanic (Motor Vehicle)	32	32	32	..	32	..	..	128
11.	Mechanic (Radio and Television)	..	..	32	..	..	..	..	32
12.	Moulder	..	16	..	32	32	..	..	80
13.	Plumber	32	..	..	..	..	16	..	48
14.	Sheet Metal worker	64	64	16	..	..	32	16	192
15.	Turner	48	24	24	..	24	..	..	120
16.	Welder	96	96	48	..	24	48	..	312
17.	Wireman	32	64	32	..	..	32	16	176
18.	Electroplater	..	..	..	..	16	..	..	16
19.	Plumber	..	..	..	..	16	..	..	16
	Total	336	716	464	216	280	280	64	2764

Source: Directorate of Training

APPENDIX III

Statement showing the details of seat strength in the I.T.Is. at the end of March 1964

Sl. No.	Trades	I. T. I. Trivandrum	I. T. I. Chalakudy	I. T. I. Cannanore	I. T. I. Kalamassery	I. T. I. Danuwa- chapuram	I. T. I. Calicut	I. T. I. Palghat	I. T. I. Ettumanur	I. T. I. Changanassery	I. T. I. Quilon	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	Blacksmithy	32	32	32	32	32	..	16	16	16	16	224
2.	Carpentry	64	96	32	32	32	32	32	16	16	16	368
3.	Draughtsman (Civil)	32	32	32	..	..	..	..	..	..	..	96
4.	Draughtsman (Mechanic)	32	32	32	..	32	16	..	..	..	..	144
5.	Electrician	96	96	32	64	32	32	32	32	32	32	480
6.	Fitter	96	128	64	64	64	32	48	32	32	32	592
7.	Wireman	32	64	32	32	..	..	32	..	..	..	224
8.	Machinist	48	48	24	24	24	..	24	24	24	24	264
9.	Mechanic (Motor Vehicle)	32	32	32	32	..	64	16	16	..	..	240
10.	Moulder	32	32	16	..	32	32	..	16	16	..	176
11.	Plumber	32	..	..	32	..	..	..	..	..	..	64
12.	Sheet Metal worker	64	64	16	32	32	..	32	16	16	16	288
13.	Surveyor	32	32	32	..	..	..	..	..	..	..	196
14.	Turner	48	24	48	24	24	24	24	24	24	24	288
15.	Welder	96	96	48	48	48	48	24	24	24	24	480
16.	Mechanic (Radio and Television)	..	..	32	..	32	..	..	..	..	..	64
17.	Mechanic (I. C. E.)	..	..	..	..	32	..	..	..	..	..	32
18.	Electroplater	..	..	..	..	..	16	..	..	..	..	16
19.	Painter	..	..	..	..	..	16	..	..	..	..	32
20.	Mechanic (Refrigeration and Air conditioning)	32	..	..	..	..	..	..	..	..	..	32
21.	Mechanic (Instrument)	32	..	..	..	..	..	..	16	..	..	48
22.	Pattern maker	..	..	..	..	..	..	..	..	..	16	16
	Total	832	808	504	416	416	336	272	216	216	248	4264

Source: Directorate of Training

APPENDIX IV

List of One year and Two year trades in Industrial Training Institutes in Kerala as on*One Year Course*

1. Blacksmithy
2. Carpentry
3. Mechanic (Diesel)
4. Mechanic (Tractor)
5. Moulder
6. Painter
7. Sheet Metal worker
8. Plumber
9. Welder
10. Stenography (English)
11. Cutting and Tailoring
12. Secretarial Practice
13. Stenography (Hindi)

Two Year Course

14. Draughtsman (Civil)
15. Draughtsman (Mechanical)
16. Electrician
17. Electronics
18. Electroplater
19. Mechanics (Refrigeration and Air Conditioning)
20. Mechanics (Radio and Television)
21. Surveyor
22. Fitter
23. Turner
24. Machinist
25. Mechanics (Motor Vehicle)
26. Wireman
27. Watch and Clock Maker

Source : Directorate of Training

APPENDIX V

Statement showing the details of strength of the Industrial Training Institutes at the end of March 1967

I. T. Is.

Sl. No.	Trade	Dhanu- chapuram	Trivandrum	Quilon	Chenganoor	Ettimanoor Kalamassery	Chalakyud	Malam- puzha, Palghat	Calicut	Cannanore	Total	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1.	Blacksmith	32	29	33	29	28	32	30	19	..	32	264
2.	Carpenter	33	40	36	28	18	17	52	..	21	32	277
3.	Draughtsman (Civil)	..	31	..	..	..	..	32	..	..	32	95
4.	Draughtsman (Mechanical)	30	31	..	..	..	..	27	..	16	32	136
5.	Electrician	30	95	66	66	68	68	83	51	29	32	582
6.	Fitter	109	101	94	95	82	171	138	160	32	128	1110
7.	Mechanic (Instrument)	..	33	..	48	43	30	..	31	..	..	94
8.	Machinist (Composite)	50	50	48	48	43	69	44	69	24	48	493
9.	Machinist (Miller)	12	..	12	..	10	12	12	12	..	..	70
10.	Machinist (Grinder)	..	..	..	..	10	12	11	10	..	..	43
11.	Machinist (Slotter, Shaper and Planer)	12	..	12	12	9	12	12	11	..	..	80
12.	Plumber	..	35	..	..	..	33	..	..	..	32	100
13.	Mechanic (Refrigerator)	..	29	..	..	..	..	..	..	..	..	29
14.	Surveyor	..	32	..	..	..	..	30	..	..	32	94
15.	Sheet Metal Worker	29	65	32	26	25	32	60	26	..	32	327
16.	Turner	36	49	58	71	63	67	43	69	24	72	557
17.	Welder	60	91	48	48	41	81	107	71	45	84	679
18.	Wireman	..	30	32	33	..	27	56	20	..	16	216
19.	Moulder	30	30	16	34	21	32	32	12	28	32	267
20.	Mechanic (Motor)	16	33	30	24	29	44	46	43	59	32	356
21.	Mechanic (Diesel)	31	..	..	..	..	..	..	..	..	..	31
22.	Building Constructor	..	18	..	..	..	19	..	..	..	..	37
23.	Mechanic (Radio)	33	..	..	..	..	..	..	..	..	64	97
24.	Electroplater	..	..	..	..	..	..	..	..	16	..	16
25.	Painter	..	..	15	..	..	..	..	..	15	..	30
26.	Pattern Maker	..	..	25	..	..	16	..	8	..	..	49
	Grand Total	543	825	557	514	447	768	820	612	309	732	6127

Source : Directorate of Training.

APPENDIX VI
Statement showing the details of strength of the I.T.Is. at the end of March 1968

I.T.Is.

Sl. No.	Trade	I.T.Is.													Total
		Dhanu- puram	Triandrum	Quilon	Chenganoor	Ettum- noor	Kalama- ssery	Chalakydy	Palghat	Calicut	Cannanore	(12)	(13)		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)			
1.	Blacksmith	32	32	32	32	32	32	32	32	32	32	32	288		
2.	Building constructor	16	16	16	16	16	16	16	16	16	16	16	64		
3.	Carpenter	32	64	32	32	32	32	32	32	32	32	32	416		
4.	Draughtsman (Civil)	32	32	32	32	32	32	32	32	32	32	32	96		
5.	Draughtsman (Mech.)	32	32	32	32	32	32	32	32	32	32	32	144		
6.	Electrician	32	96	64	64	80	64	96	64	32	32	32	624		
7.	Electroplater	32	32	32	32	32	32	32	32	32	32	32	16		
8.	Fitter	112	96	96	96	96	176	144	176	32	128	128	1152		
9.	Machinist (Composite)	48	48	48	48	48	72	48	72	24	48	48	504		
10.	Machinist (Grinder)	12	12	12	12	12	12	12	12	12	12	12	48		
11.	Machinist (Miller)	12	12	12	12	12	12	12	12	12	12	12	72		
12.	Machinist (SSP)	12	12	12	12	12	12	12	12	12	12	12	84		
13.	Mechanic (Tractor)	32	32	32	32	32	32	32	32	32	32	32	32		
14.	Mechanic (Instrument)	32	32	32	32	32	32	32	32	32	32	32	96		
15.	Mechanic (Diesel)	16	32	32	16	32	48	48	48	64	32	32	368		
16.	Mechanic (Motor Vehicle)	32	32	32	32	32	32	32	32	32	32	32	32		
17.	Mechanic (Refrigerator)	32	32	32	32	32	32	32	32	32	32	32	96		
18.	Mechanic (Radio)	32	32	32	32	32	32	32	32	32	32	32	288		
19.	Moulder	32	32	32	32	32	32	32	32	32	32	32	32		
20.	Painter	32	32	32	32	32	32	32	32	32	32	32	64		
21.	Pattern maker	32	32	32	32	32	32	32	32	32	32	32	32		
22.	Plumber	32	64	32	32	32	32	64	32	32	32	32	352		
23.	Sheet Metal Worker	32	32	32	32	32	32	32	32	32	32	32	96		
24.	Surveyor	36	32	60	72	72	72	48	72	24	72	72	576		
25.	Turner	60	48	48	48	48	84	108	72	48	84	84	696		
26.	Welder	32	32	32	32	32	32	64	32	16	16	16	240		
27.	Wireman	32	32	32	32	32	32	32	32	32	32	32	32		
...	Total	552	848	580	532	540	808	912	748	352	732	732	6604		

Source : Directorate of Training.

APPENDIX VII

Statement showing the details of seat strength in the Industrial Training Institutes at the end of August 1978

I. T. Is.

Sl. No.	Trade	Dhanu- vachapuram	Trivan- drum	Attingal	Quilon	Chenga noor	Ettumanoor	Kalama- ssey	Chalakkudi	Palghat	Mala- ppuram	Calicut	Cannanore	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
<i>One year course :</i>														
1.	Blacksmith	48+	..	..	32	32	32	32	32	16	16	..	32	304
2.	Carpenter	32	48	16	32	32	32	32	64	16	..	32	32	416
3.	Mechanic (Diesel)	16	..	..	..	..	..	..	..	..	..	32	..	64
4.	Mechanic (Motor vehicle)	32	32	16	32	16	32	32	32	32	..	32	32	320
5.	Mechanic (Tractor)	..	..	..	16+	48	..	..	..	48	..	..	..	96
6.	Moulder	32+	..	..	16	32	32	32	32	16	..	16	32	272
7.	Painter	16	..	..	16	..	..	16	16	16	..	..	16	32
8.	Plumber	..	32	..	16	32	16	32	16	16	..	..	16	208
9.	Sheet Metal Worker	32+	48	..	16	32	16	32	16	16	..	16	16	256
10.	Welder (Gas & Elec.)	16	72	24	60	84	60	84	84	72	..	24	72	732
11.	Mechanic (R. and A. C.)	96	32	32	16+	..	..	..	..	..	..	..	..	96

APPENDIX VII—(Contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
	<i>Two year course :</i>													
1.	Draughtsman (Civil)	..	32	16	..	..	..	..	32	..	16	..	32	128
2.	Draughtsman (Mechanic)	32	32	16	..	..	..	..	32	..	16	16	32	176
3.	Electrician	32	64	..	64	30	30	64	30	64	..	32	32	592
4.	Electroplater	..	..	..	..	..	..	16	..	..	..	..	..	16
5.	Mechanic (Instrument)	..	32	..	..	..	..	48	..	48	..	..	..	128
6.	Mechanic (Radio Telev.)	48+	..	32	..	..	..	..	..	..	..	..	64	160
7.	Pattern Maker	16	..	..	16	..	..	16	..	..	..	..	..	32
8.	Surveyor	..	32	..	..	..	..	..	32	..	..	..	32	96
9.	Building Constructor	..	16	..	16	..	..	16	..	..	..	16	..	64
10.	Fitter	80+	112	32	96	96	96	144	128	128	16	64	112	1136
11.	Machinist Composite	32	48	..	72	72	84	96	72	108	..	24	48	696
12.	Turner	48	48	24	48	72	72	72	60	72	16	24	72	612
13.	Wireman	32	32	16	32	32	32	32	48	32	..	32	48	384
	Grand Total	712+	712	224	580+	660	584	796	760	684	80	360	704	7016
		128	32											

Source : Directorate of Training.

APPENDIX VIII

Statement showing the Institution-wise details of seat strength for 1973-74

Sl. No.	Trade	Dhanu- vacha- puram	Trivan- drum	Attin- gal	Qui- lon	Chen- ganoor	Ettuma- noor	Kala- massery	Chala- kudy	Pal- ghat	Malap- puram	Cali- cut	Can- nanore	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1.	Blacksmith	32	32	16	32	32	32	32	16	16	16	..	16	272
2.	Carpenter	48	48	32	32	32	32	32	32	16	..	32	32	368
3.	Mechanic (Diesel)	32	..	..	16	..	..	..	..	..	..	32	..	80
4.	Mechanic (Motor Vehicle)	32	32	32	32	32	32	32	32	32	16	32	32	368
5.	Mechanic (Tractor)	..	..	..	..	32	..	..	..	32	..	..	..	64
6.	Moulder	32	32	..	32	32	32	32	32	16	..	..	32	172
7.	Painter	..	..	..	16	..	..	16	..	..	..	..	..	32
8.	Plumber	32	32	..	16	16	16	16	16	16	..	16	16	192
9.	Sheet Metal worker	32	32	..	16	16	16	32	16	16	..	16	16	208
10.	Welder	72	72	48	48	72	72	72	72	72	..	24	48	672
11.	Mechanic (Refrigeration and Air Conditioning)	..	32	32	32	16	..	..	..	..	..	..	16	128
12.	Draughtsman (Civil)	..	32	32	..	..	..	..	32	..	32	..	32	160
13.	Draughtsman (Mechanical)	32	32	32	16	..	..	..	32	..	32	16	32	224
14.	Electrician	32	64	..	64	80	80	64	80	80	..	32	32	608
15.	Electronics	..	16	..	..	..	..	..	..	..	..	..	16	32
16.	Electroplater	..	..	..	..	..	..	16	..	..	..	..	..	16
17.	Mechanic (Instruments)	..	32	..	..	..	16	48	..	64	..	..	..	160
18.	Mechanic (Radio and Television)	64	16	48	..	16	..	..	..	..	..	..	64	208
19.	Pattern maker	..	..	..	16	..	..	16	..	..	..	..	..	32
20.	Surveyor	..	32	..	16	..	..	..	32	..	..	..	32	112
21.	Fitter	112	112	64	96	96	96	128	128	128	32	64	96	1152
22.	Turner	48	48	36	48	60	72	72	48	72	..	24	72	600
23.	Machinist	72	48	..	72	72	72	96	72	96	..	24	48	672
24.	Wireman	32	32	32	32	32	48	32	32	32	32	48	32	416
Total		704	776	404	632	635	616	736	672	688	160	360	664	7048

Source : Directorate of Training

APPENDIX IX

Seat strength of Trainees in the I.T.Is. in Kerala State for 1975-76

Sl. No.	Trade	Dhanuochapuram	Trivandrum	Attingal	Quilon	Chenganoor	Etumanoor	Kalamassery	Chalakudy	Palghat	Malappuram	Calicut	Cananore	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
<i>One Year Trades</i>														
1.	Blacksmith	32	32	16	32	32	32	32	16	16	16	..	16	272
2.	Carpenter	48	48	32	32	32	32	32	32	16	..	32	32	368
3.	Mechanic (Diesel)	32	..	..	16	..	..	..	..	..	..	32	..	80
4.	Mechanic (Motor Vehicle)	32	32	32	32	32	32	32	32	32	32	32	32	368
5.	Mechanic (Tractor)	..	..	..	..	32	..	..	..	32	..	..	..	64
6.	Moulder	32	32	..	32	32	32	32	32	16	..	..	32	272
7.	Painter	..	..	..	16	..	..	16	..	..	..	..	..	32
8.	Plumber	16	16	..	16	16	16	16	16	..	..	16	16	144
9.	Sheet Metal worker	48	48	32	16	16	16	32	16	16	..	16	16	272
10.	Welder	72	72	48	48	72	72	72	72	72	..	24	48	672
11.	Mechanic (Refrigeration and Air Conditioning)	..	32	32	32	16	..	..	..	..	..	..	16	128
12.	Stenography (English)	..	..	16	..	..	16	..	16	..	..	..	16	64
<i>Two Year Trades</i>														
1.	Draughtsman (Civil)	..	32	32	..	..	..	..	32	16	32	..	32	160
2.	Draughtsman (Mechanical)	32	32	32	32	..	..	..	32	..	32	32	32	256
3.	Electrician	32	64	..	64	64	64	64	64	64	..	48	32	560
4.	Electronics	..	48	..	..	..	..	..	..	..	..	..	32	80
5.	Electroplater	..	..	..	..	..	..	16	..	..	..	..	..	16
6.	Mechanic (Instrument)	..	32	..	..	..	32	32	..	48	..	..	16	176
7.	Mechanic (Radio and Television)	32	48	48	..	48	..	..	..	32	..	16	64	288
8.	Surveyor	..	32	..	32	..	..	..	32	..	..	..	32	128
9.	Fitter	112	80	64	96	30	96	112	112	112	32	64	96	1056
10.	Turner	48	48	24	48	72	72	72	48	72	..	24	72	600
11.	Machinist	72	48	..	72	72	72	96	72	96	..	24	48	672
12.	Wireman	48	48	32	32	48	64	48	48	48	32	48	48	544
Total		668	824	440	648	664	648	704	672	688	160	408	728	7272

Source : Directorate of Training.

APPENDIX X

Statement showing the details of seat strength of the I.T.Is. for 1976-77

Sl. No.	Trade	Dhanuachapuram	Triandrum	Attingal	Quilon	Chengannur	Ettumanoor	Kalamassery	Chalakkudy	Palghat	Malappuram	Calicut	Cananore	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
1.	Blacksmith	32	32	16	32	32	32	32	16	16	16	..	16	272
2.	Carpenter	48	48	32	32	32	32	32	32	16	..	32	32	368
3.	Mechanic (Diesel)	32	..	..	16	..	..	..	..	..	..	32	..	80
4.	Mechanic (Tractor)	..	..	..	..	32	..	..	..	32	..	..	..	64
5.	Moulder	32	32	..	32	32	16	32	32	16	..	..	16	240
6.	Plumber	16	16	..	16	16	16	16	16	..	..	16	16	144
7.	Painter	..	..	..	16	..	..	16	..	..	..	..	..	32
8.	Sheet Metal Worker	46	48	32	16	16	16	32	16	16	..	16	16	272
9.	Welder	73	72	48	48	72	60	48	60	60	..	24	48	612
10.	Stenography (English)	..	..	16	..	..	16	16	16	16	16	..	16	112
11.	Draughtsman (Civil)	16	32	32	..	..	16	..	32	32	32	32	32	256
12.	Draughtsman (Mechanical)	32	32	32	32	..	..	..	32	..	32	..	32	224
13.	Electrician	32	64	..	64	64	64	64	64	64	..	48	48	576
14.	Electronics	..	64	16	16	..	16	16	..	16	16	16	48	224
15.	Electroplater	..	..	..	..	..	..	16	..	..	..	..	..	16
16.	Mechanic (Instrument)	..	32	..	..	..	32	32	..	32	..	..	32	160
17.	Mechanic (Radio and Television)	32	64	64	..	64	16	..	16	64	..	32	64	416
18.	Mechanic (Refrigeration and Air conditioning)	..	32	32	22	16	..	16	..	..	..	16	32	176
19.	Surveyor	..	32	..	32	16	..	..	32	..	..	..	32	144
20.	Fitter	96	64	64	96	64	96	96	96	96	32	64	96	960
21.	Turner	48	48	24	48	60	60	60	48	72	..	24	60	552
22.	Machinist	72	48	..	72	60	60	72	72	72	..	24	48	600
23.	Mechanic (Motor Vehicle)	32	32	32	32	32	32	16	32	32	16	16	32	336
24.	Wireman	64	64	32	32	64	64	64	64	64	32	48	64	656
	Total	704	856	472	664	672	644	676	676	716	192	440	780	7492

Source: Directorate of Training

APPENDIX XI

Seat strength of Trainees in I.T.Is. in Kerala for the year 1977-78

Sl. No.	Name of Trades	Dhanuvachapuram	Trivandrum	Attingal	Qilon	Chengannur	Idukki	Ettumacoar	Kalamassery	Chalakkudi	Palghat	Malappuram	Calicut	Cananore	Total	Number of units
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
<i>One Year Course</i>																
1.	Blacksmithy	32	32	16	32	32	16	32	32	16	16	16	..	16	288	18
2.	Carpenter	48	48	32	32	32	..	32	32	32	16	..	32	32	368	23
3.	Mechanic (Diesel)	32	16	..	16	..	..	..	..	..	..	..	32	..	96	6
4.	Mechanic (Tractor)	..	..	..	..	32	..	..	..	..	32	..	..	..	64	4
5.	Moulder	32	32	..	32	16	..	16	32	32	16	..	..	16	224	14
6.	Painter	..	..	..	16	..	..	..	16	..	..	..	..	..	32	2
7.	Sheet Metal Worker	48	48	32	16	16	..	16	32	16	16	..	16	16	272	17
8.	Plumber	16	16	..	16	32	..	16	16	16	..	..	16	16	160	10
9.	Welder	72	72	48	48	72	12	60	48	60	60	12	24	48	636	53
10.	Stenography	..	..	16	..	16	32	16	16	16	16	16	..	16	160	10
11.	Cutting and Tailoring	..	..	..	..	..	..	16	..	..	..	..	..	..	16	1
	Total	280	264	144	208	248	60	204	224	188	172	44	120	160	2316	158
<i>Two Year Course</i>																
1.	Draughtsman (Civil)	32	32	32	..	16	..	32	..	32	32	32	32	32	304	19
2.	Draughtsman (Mechanical)	32	32	32	32	..	..	..	..	32	..	32	..	32	224	14
3.	Electrician	32	64	..	64	64	16	64	64	64	64	..	48	48	592	37
4.	Electronics	16	64	32	32	16	16	32	32	..	32	32	32	48	384	24
5.	Electroplater	..	..	..	..	..	..	..	16	..	..	..	..	..	16	1
6.	Mechanic (Instrument)	..	32	..	..	..	..	32	32	..	32	..	..	32	160	10
7.	Mechanic (Radio and Television)	32	64	64	..	48	16	32	..	16	48	..	32	64	416	27
8.	Mechanic (Refrigeration and Air Conditioning)	..	48	48	48	32	..	..	32	..	..	..	32	48	288	18
9.	Fitter	96	64	64	96	64	16	96	96	96	96	32	64	96	976	61
10.	Surveyor	..	32	..	32	16	..	..	..	32	..	..	..	32	144	9
11.	Turner	48	48	24	48	60	12	60	60	48	72	..	24	60	564	47
12.	Machinist	72	48	..	72	60	..	60	48	72	72	..	24	48	576	48
13.	Mechanic (Motor Vehicle)	32	32	32	32	32	..	32	16	32	32	16	16	32	336	21
14.	Wireman	64	64	32	32	64	..	64	64	64	64	32	64	64	672	42
	Total	456	624	360	488	472	76	504	460	488	544	176	368	637	5652	377
	Grand Total	736	888	504	696	720	136	708	684	676	716	220	488	796	7968	535

Source: Directorate of Training

APPENDIX—XII

Seat Strength of Trainees in the I.T Is. August 1978

Sl. No.	Name of Trades	Dhanu- vacha- puram	Trivan- drum	Kazhaku- tom	Attingal	Quilon	Chenga- nur	Idukki	Ettu- manur	Pallicka- thode	Kalama- ssery	Chalad- kudy	Palghat	Mala- ppuram	Calicut	Canma- nore	Total	Num- ber of Units	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
<i>One year course :</i>																			
1.	Blacksmith	32	32	..	16	32	32	16	32	..	32	16	16	16	..	16	288	18	
2.	Car enter	48	48	..	32	32	32	..	32	..	32	48	16	..	32	32	384	24	
3.	Mech. Diesel	32	16	..	..	32	32	..	..	..	..	..	32	..	32	..	112	7
4.	Mech. Tractor	..	..	..	..	..	32	..	16	..	32	32	16	..	..	16	64	4
5.	Moulder	32	32	..	..	32	16	..	..	..	32	32	16	..	..	..	224	14
6.	Painter	..	..	..	..	16	..	..	..	..	16	16	..	..	..	..	48	3
7.	Sheetmetal worker	48	48	..	32	16	16	..	16	..	32	16	16	..	16	16	272	17	
8.	Plumber	16	48	..	16	16	32	..	16	..	32	16	..	..	16	16	240	15
9.	Welder	72	72	..	48	48	72	12	72	..	48	60	60	12	24	48	648	54	
10.	Stenogr. phy (Eng.)	..	..	16	32	..	16	32	16	..	16	32	16	..	..	16	224	14
11.	Cutting & Tailoring	..	..	16	..	..	..	..	16	..	..	..	..	..	..	..	32	2
12.	Secretarial Practice	..	..	16	..	..	..	..	..	..	..	..	..	..	..	..	16	1
13.	Stenography (Hindi)	..	..	16	..	..	..	..	..	..	..	..	..	..	..	..	16	1
Total		280	296	64	176	224	248	60	216	48	240	220	172	44	120	160	2568	174	
<i>Two year Course :</i>																			
1.	Draughtsman Civil	32	32	16	32	..	32	..	32	16	..	32	32	48	32	32	368	23	
2.	Draughtsman Mech.	32	32	..	32	32	64	16	64	..	64	64	80	16	48	48	624	39	
3.	Electrician	32	64	16	32	32	32	16	32	..	32	..	32	32	48	64	464	29	
4.	Electronics	32	64	16	32	..	32	16	32	..	16	..	48	..	..	..	16	1
5.	Elect oplater	32	64	16	80	..	32	16	32	16	..	16	..	..	32	64	448	28
6.	Mech. (Radio & T/V)	..	32	..	48	..	48	..	32	16	32	..	32	..	..	32	160	10
7.	Mech. (Instrument)	..	64	..	48	48	..	..	..	16	32	..	..	..	48	64	368	23
8.	Mech. (Ref. & Air C.n.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9.	Surveyor	..	32	..	32	32	..	..	112	..	..	32	..	..	..	32	128	8
10.	Filter	96	64	..	64	96	64	16	112	..	112	96	96	32	64	96	1008	63	
11.	Turner	48	48	..	24	48	60	12	60	..	60	48	72	..	24	60	564	47	
12.	Machinist	72	48	..	72	72	60	..	60	..	48	72	72	..	24	48	576	48	
13.	Mech. (Motor Vehicle)	32	32	..	32	32	48	..	32	16	32	32	32	16	16	32	384	24	
14.	Wireman	80	64	..	32	32	64	..	80	16	64	64	80	32	64	64	736	46	
15.	Watch & Clock Maker	..	..	16	..	..	..	..	..	..	..	..	..	..	..	..	16	1
Total		488	640	64	376	488	574	76	576	80	492	488	576	192	400	668	6068	403	
Grand Total		768	936	128	552	12	752	136	752	128	732	708	748	236	520	828	8636	577	

Seat strength of Trainees in the I.T.Is during 1980-81

Sl. No.	Name of Trades	Women															Total	No. of Units	
		Dhans- vacha- param	Trivan- drum	I.T.I. Kazha- kattom	Atingal	Quilon	Changan- nur	Idukki	Ethuna- nur	Palli- chathode	Kalamo- ssery	Chala- kudy	Palgat	Mala- ppuram	Calicut	Canna- nore			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	
One Year Course																			
1.	Black smith	32	32	..	16	32	32	16	32	..	32	16	16	16	..	16	288	18	
2.	Carpenter	48	48	..	32	32	32	..	32	..	32	32	16	..	32	32	368	23	
3.	Mech. Diesel	32	16	..	..	32	32	..	..	..	..	..	32	..	32	..	122	7
4.	Mech. (Tractor)	32	32	..	..	32	16	..	16	..	32	32	16	..	..	16	64	4
5.	Moulder	32	32	..	..	32	16	..	..	..	32	32	16	..	..	..	274	14
6.	Painter	..	..	..	..	16	..	..	16	..	16	32	..	..	..	..	48	3
7.	Plumber	16	48	..	16	16	32	..	16	..	32	32	16	..	16	..	256	16	
8.	Sheet metal worker	48	48	..	32	16	16	..	16	..	32	16	16	..	16	..	272	17	
9.	Welder	72	72	..	48	48	72	12	72	..	48	60	60	12	24	48	648	54	
10.	Dress making	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16	1
11.	Secretarial Practice	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16	1
12.	Stenography (Eng.)	..	..	..	16	..	16	32	16	..	16	16	16	16	..	..	192	12
13.	Stenography (Hindi)	..	..	..	16	..	..	..	..	..	..	..	..	..	..	..	16	1
14.	Upholstry	..	..	..	..	..	..	..	16	..	..	..	..	..	..	..	16	1
Total		280	296	64	160	224	248	60	216	48	240	204	172	44	120	160	2536	172	
Two Year Course																			
1.	Mach. Civil	32	32	32	32	..	32	..	32	16	..	32	32	48	32	32	384	24	
2.	Mach. Mech.	32	32	..	32	32	..	..	..	..	..	32	32	16	..	..	908	13
3.	Electrician	32	64	32	..	64	64	16	64	..	64	64	80	16	48	48	624	39	
4.	Electronics	32	64	32	32	32	32	16	32	..	32	..	32	32	48	64	480	30	
5.	Electroplater	..	..	..	16	..	..	..	..	..	..	..	..	..	..	..	16	1
6.	Mech. (Radio & Tele.)	32	64	32	80	..	32	16	32	16	..	16	48	..	32	64	464	29	
7.	Mech. (Instrument)	..	32	..	..	..	..	..	32	..	32	..	32	..	..	32	160	10
8.	Mech. (Ref. & Air conditioning)	..	64	..	48	48	48	..	..	16	32	..	..	..	48	64	368	23
9.	Surveyor	..	32	..	..	32	..	..	112	..	..	32	..	..	..	32	128	8
10.	Fitter	96	64	..	64	96	64	16	112	..	112	96	96	32	64	96	1008	63	
11.	Turner	48	48	..	24	48	60	12	60	..	60	48	72	..	24	60	564	47	
12.	Machinist	72	48	..	..	72	60	..	60	..	48	72	72	..	24	48	576	48
13.	Mech. (Motor Vehicle)	32	32	..	32	32	48	..	32	16	32	32	32	16	16	32	384	24	
14.	Wireman	80	64	..	32	32	64	..	80	16	64	64	80	32	64	64	736	46	
15.	Watch & Clockmaker	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	16	1
Total		488	640	112	392	488	504	76	536	80	476	488	576	192	400	664	6116	406	
Grand Total		768	936	176	552	712	752	136	752	128	716	692	748	236	520	828	8632	578	

APPENDIX—XIV

Non-Matric Trades

One year Course

1. Blacksmith
2. Carpenter
3. Mechanic (Diesel)
4. Mechanic (Tractor)
5. Moulder
6. Painter
7. Sheet Metal Worker
8. Plumber
9. Welder
10. Upholstry
11. Dressmaking

Two Year Courses

1. Fitter
2. Turner
3. Machinist
4. Wireman
5. Mechanic (Motor Vehicle)

Matric Trades

One year Course

1. Stenography (English)
2. Stenography (Hindi)
3. Secretarial Practice

Two Year courses

1. Draughtsman (Civil)
2. Draughtsman (Mechanical)
3. Electrician
4. Electroplater
5. Electronics
6. Mechanic (Instrument)
7. Mech. (Radio & Television)
8. Mech. (Refrigeration & Air Conditioning)
9. Surveyor
10. Watch & Clock Maker

APPENDIX XV

List of Private Industrial Training Centres in Kerala

Sl. No.	Name of institute	Trade	No. of seats (Junior and Senior)
(1)	(2)	(3)	(4)
1.	M.P.I.T.C. Attakulangara, Trivandrum-95023	1. Mech (Radio and Tele.)	64
		2. Draughtsman (Civil)	64
		3. Draughtsman (Mech.)	32
		4. Surveyor	32
		5. Electronics	64
		6. Mech. (Ref. and Air Cond.)	64
2.	N.I. Institute of Engineering, I.T.C. Amaravila, P.O., Neyyattinkara	1. Draughtsman (Mech.)	16
		2. Draughtsman (Civil)	32
		3. Fitter	32
		4. Mech. (Radio and Tele.)	32
		5. Wireman	32
		6. Mech. (Ref. and Air Cond.)	32
		7. Electrician	32
		8. Mech. (Motor Vehicle)	32
		9. Mech. (Diesel)	32
3.	C.S.I. I.T.C. Kodyannoorakonam, Nellimoodu, P.O., Trivandrum	1. Fitter	64
		2. Tool and Die Maker	16
4.	Kerala Institute of Technology, Pallichal, Vedivanchancoil, Trivandrum	1. Fitter	32
5.	C.S.I. I.T.C. Mylam, CheriyaKonni P. O., Trivandrum	1. Electrician	64
		2. Wireman	32
6.	Neyyar Educational and Cultural Foundation I.T.C., T.B. Junction, Neyyattinkara	1. Draughtsman (Civil)	32
		2. Electronics	64
		3. Mech. (Motor Vehicle)	64
		4. Wireman	32
7.	M.E.S. I.T.C., Vallakadvu, Trivandrum	1. Draughtsman (Civil)	16
		2. Mechanic (Diesel)	16
		3. Plumber	16
8.	Bishop Peter Pereira Memorial I.T.C., Mariyapuram, Neyyattinkara	1. Fitter	32
		2. Draughtsman (Civil)	32

APPENDIX XV—(contd.)

(1)	(2)	(3)	(4)
9.	Trivandrum I.T.C., Kazhakuttom, Trivandrum District	1. Mech. (Radio and Tele.) 2. Electronics 3. Fitter 4. Draughtsman (Civil)	16 16 16 16
10.	Mathews Mar Athanesious I.T.C. Ottasekharangalam P.O., Mylachal, Trivandrum	1. Welder	12
11.	Association for Social Health in India (Kerala) I.T.C., Ambasadnam, Poojappura, Trivandrum	1. Stenography	32
12.	Sachidananda Yoga I.T.C., Puthanchantha, Varkala P.O.	1. Plumber 2. Draughtsman (Civil) 3. Electrician 4. M.R.A.C. 5. Stenography (Eng.)	32 32 32 32 32
13.	Dr. Ambedkar I.T.C., Christian College, East Lane, Kattakkada P.O.	1. Cutting and Tailoring	32
14.	Bharath Matha I.T.C., Kottiyam, Quilon	1. Turner 2. Fitter 3. Welder 4. Blacksmith 5. Mech (Radio and Tele.)	24 64 24 32 32
15.	Mohan's I.T.C., Puthiyakavu, Karunagappally, Quilon	1. Mech. (Radio and Tele.) 2. Electrician 3. Fitter	32 80 32
16.	Radio and Elec. Engg. Institute, Kozhencherry	1. Mech. (Radio and Tele.) 2. M.R.A.C. 3. Draughtsman (Civil) 4. Fitter 5. Electrician	96 32 32 32 32
17.	'V' Institute, Lakshminada, Quilon-691013	1. Draughtsman (Civil) 2. Draughtsman (Mech.) 3. Surveyor 4. Mech. (Radio and Tele.) 5. Electronics 6. Fitter	48 48 32 32 32 32
18.	Mannam Centenary Memorial I.T.C., Flakolloor P.O., Konni-689691	1. Wireman 2. Draughtsman (Civil) 3. Mech. (Radio and Tele.) 4. Draughtsman (Mech.) 5. Electronics 6. Plumber	32 32 32 16 32 16
19.	Mar Philaxinose Memorial I.T.C., Kuttikkonam, Chingamanad P.O., Kottarakara	1. Fitter 2. Electrician 3. Wireman 4. Draughtsman (Civil) 5. Welder 6. Stenography (Eng.)	64 64 64 64 24 16
20.	Sree Narayana Trust I.T.C., Caramcode P.O., Chathannoor, Quilon	1. Stenography (Eng.) 2. Plumber 3. Welder 4. Draughtsman (Civil) 5. Electrician 6. Fitter 7. Wireman	16 16 12 64 64 64 32
21.	Malic Dhinar I.T.C., Patayathode, Quilon	1. Mech. (Radio and Tele.) 2. Electronics 3. Electrician 4. Fitter 5. Wireman 6. Mech. (Diesel) 7. Plumber 8. Draughtsman (Civil) 9. Welder	32 64 96 64 32 32 32 32 32
22.	Mount Carmel Assam I.T.C., Mathilakom, East Kallada	1. Draughtsman (Civil) 2. Electrician 3. Fitter 4. Wireman	32 64 64 32

APPENDIX XV—(contd.)

(1)	(2)	(3)	(4)
23.	R. Sankar Memorial I.T.C., Punalur	1. Electronics	32
		2. Fitter	32
24.	Michael Mar Dionosius Memorial I.T.C., Vadakkedathukavu, Adoor, Quilon	1. Draughtsman (Civil)	32
		2. Electrician	48
		3. Fitter	48
		4. Welder	12
25.	Mar Philaxinos I.T.C., Mylapra Town P.O., Pathanamthitta, Quilon	1. Draughtsman (Civil)	32
		2. Draughtsman (Mech.)	16
		3. Electrician	64
		4. Wireman	32
		5. Stenography	16
26.	Bharath Matha I.T.C., Punalur, Quilon	1. Draughtsman (Civil)	16
		2. Electrician	64
		3. Fitter	32
		4. Welder	24
27.	Bishop Clemis I.T.C., Vayala Buildings, Ranni P.O., Quilon	1. Draughtsman (Civil)	48
		2. Plumber	16
		3. Stenography (Eng.)	32
28.	R. Sankar Memorial I.T.C., Kallelibhagam, Karunagappally	1. Draughtsman (Civil)	32
		2. Electrician	64
		3. Fitter	64
29.	N. Sreekantan Nair Sashtiabdapurthy Memorial I.T.C., Chavara P.O., Quilon	1. Diesel Mechanic	16
		2. Electrician	80
		3. Fitter	80
		4. Wireman	32
		5. Draughtsman (Civil)	32
		6. Welder	32
30.	Kannamthottathu Janardhanan Nair Memorial I.T.C., Kovilumuku, Perumpuzha, Kundara, Quilon	1. Electrician	32
		2. Mech. (Motor Vehicle)	32
31.	Blue Ray Industrial Training Complex, S. N. College Junction, Quilon	1. Electrician	32
		2. Wireman	32
		3. Draughtsman (Mech.)	32
		4. Draughtsman (Civil)	32
		5. Fitter	32
32.	Kerala Vellala Mahasabha I.T.C., Mathra, Punalur	1. Fitter	16
		2. Plumber	32
33.	Sindhu I.T.C., Peringinad, Pazhakulam P.O., Adoor	1. Fitter	16
		2. Draughtsman (Civil)	
		3. Electrician	
		4. Plumber	
34.	Marthoma I.T.C., Alcayamon P.O., Anchal, Quilon	1. Draughtsman (Civil)	16
35.	Mohan's I.T.C., Kayamkulam	1. Draughtsman (Mech.)	64
		2. Draughtsman (Civil)	64
		3. Fitter	80
		4. Electrician	96
		5. Mech. (Radio and Tele.)	64
		6. Wireman	48
36.	Mar Baselios I.T.C., Mavelikkara	1. Electrician	64
		2. Fitter	64
		3. Draughtsman (Civil)	64
		4. Draughtsman (Mech.)	32
		5. Stenography	32
		6. Plumber	32
37.	National I. T. C., Chengannur	1. Mech. (Radio and Tel.c)	32
		2. Fitter	64
		3. Electrician	64
		4. Draughtsman (Mech.)	32
		5. Draughtsman (Civil)	64
		6. Plumber	32
		7. Stenography	32
		8. Wireman	32

APPENDIX XV—(contd.)

(1)	(2)	(3)	(4)
38.	Institute of Engineering Technology, I.T.C., Alleppey	1. Draughtsman (Mech.) 2. Draughtsman (Civil) 3. Wireman 4. Mech. (Radio and Tele.) 5. Fitter 6. Mech. (Ref. and Air Cond.) 7. Electrician 8. Stenography	64 96 48 64 80 64 96 32
39.	Marthoma I.T.C., Cherukole P.O., Kozhencherry	1. Draughtsman (Civil) 2. Draughtsman (Mech.) 3. Fitter 4. Electrician 5. Mech. (Radio and Tele.) 6. Welder	64 64 64 64 32 24
40.	I.T.C., Thiruvalla	1. Fitter 2. Draughtsman (Mech.) 3. Electrician 4. Draughtsman (Civil) 5. Mech. (Radio and Tele.) 6. Stenography (Eng.) 7. Secretarial Practice 8. Stenography (Hindi) 9. Mech. (Diesel)	48 32 64 64 32 32 32 32 32
41.	Pius 'X' I.T.C., Edathua, Alleppey	1. Electrician 2. Fitter 3. Welder	32 32 12
42.	M. U.I.T.C., Harippad, Alleppey	1. Stenography (Eng.) 2. Cutting and Tailoring 3. Upholstry 4. Mech. Diesel 5. Mech. (Ref. and Air Cond.) 6. Draughtsman (Civil) 7. Plumber	16 16 16 32 32 32 16
43.	M.N.I.T.C., Pandalam	1. Electrician 2. Draughtsman (Civil) 3. Wireman 4. Mech. Motor Vehicle	64 32 32 32
44.	St. Mary's I.T.C., Niranam P. O., Thiruvalla	1. Draughtsman (Civil) 2. Electrician 3. Fitter 4. Welder	32 32 32 12
45.	Kayamkulam I.R.C., P. B. No. 34, Kayamkulam	1. Electrician 2. Wireman 3. Fitter	32 16 32
46.	S.P.M.I.T.C., Mundankavu, Chengannur P. O.	1. Draughtsman (Civil) 2. Draughtsman (Mech.) 3. Electrician 4. Plumber	32 16 48 16
47.	St. Mary's I.T.C., Pulimkunnu P. O., Alleppey	1. Draughtsman (Civil) 2. Electrician 3. Wireman 4. Plumber	32 32 32 16
48.	Industrial Training Centre, Ambalapuzha	1. Electrician 2. Welder 3. Draughtsman (Civil)	16 12 16
49.	Industrial Training Centre, Nangiarkulangara P.O., Alleppey	1. Draughtsman (Civil) 2. Electrician 3. Plumber 4. Fitter	16 64 32 32
50.	S. N. Industrial Training Centre, Kochalumoodu, Callimel P.O., Mavelikkara	1. Fitter	16

APPENDIX XV—(contd.)

(1)	(2)	(3)	(4)
51.	Sobha I.T.C., K.R. Puram P.O., Pallippuram, Shertallay	1. Draughtsman (Civil) 2. Plumber 3. Electrician 4. Fitter 5. Mech. (Diesel) 6. Mech. (Motor Vehicle) 7. Stenography (Eng.)	16 16 16 32
52.	S.B. College of Engg. I.T.C., Sherthallai	1. Fitter	16
53.	Welfare Tech. Institute, Vaikom, Kottayam	1. Fitter 2. Stenography	64 32
54.	Mathews Mar Ivanios I.T.C., Pothampuram, Meenadom, Kottayam	1. Draughtsman (Civi) 2. Plumber 3. Wireman 4. M.R.A.C. 5. Electrician	64 16 32 32 64
55.	Medona Institute of Electronics Engineering, Kanjirappally, Kottayam	1. Mech. (Radio and Tele.) 2. Mech. (Ref. and Air Cond.) 3. Electronics 4. Plumber 5. Electrician 6. Fitter 7. Draughtsman (Civil) 8. Stenography (Eng.)	48 32 48 16 32 32 32 32
56.	Mannam Sathabhishek Smarak I.T.C., Perunna, Layikad P.O., Changanacherry	1. Mech. (Radio and Tele.) 2. Fitter 3. Plumber 4. Welder	48 64 16 12
57.	St. John's I.T.C., Nedumkunnam, Kottayam	1. Draughtsman (Civil) 2. Electrician 3. Wireman 4. Plumber	32 32 32 16
58.	Mary Matha I.T.C., Kaduthuruthy, Kottayam	1. Draughtsman (Civil) 2. Mech. (Motor Vehicle) 3. Plumber 4. Welder 5. Stenography (Eng.) 6. Secretarial Practice 7. Mech. (R.A.C.) 8. Fitter	32 32 32 24 32 32 32 32
59.	St. Mary's I.T.C., Manarcaud P.O., Kottayam	1. Draughtsman (Civil) 2. Electrician 3. Fitter 4. Welder	48 49 32 12
60.	Dr. Zakhir Hussain Memorial I.T.C., Vandipettah, Boat Jetty Road, Changanacherry	1. Draughtsman (Civil) 2. Electrician 3. Wireman 4. Plumber	32 64 32 16
61.	Ninans Industrial Training Centre, Kottayam	1. Draughtsman (Civil) 2. Fitter 3. Electrician	48 32 32
62.	St. Pius I.T.C., Amankara P.O., Ramapuram, Kottayam	1. Draughtsman (Civil) 2. Fitter 3. Stenography (Eng.) 4. Plumber 5. Electrician 6. Mech. (Radio and Tele.)	32 32 32 32 32 32
63.	Sreeckumar Electrical Engineering Institute I.T.C., Changanassery	1. Draughtsman (Civil) 2. Fitter 3. Electrician	16 16 32

APPENDIX XV—(contd.)

(1)	(2)	(3)	(4)
64. Little Flower Engg. Institute, Kalamassery	1.	Mech. (Radio and Tele.)	48
	2.	Moulder	32
	3.	Fitter	64
	4.	Welder	24
	5.	Electronics	32
	6.	Mech. (Ref. and A.C.)	32
65. Jubilee Memorial Tec. Training Institute, Cochin	1.	Turner	24
	2.	Fitter	48
66. Social Welfare Centre I.T.C., Kalamassery	1.	Fitter	64
	2.	Plumber	32
67. Kanjoor I.T.C., Kanjoor, Alwaye	1.	Fitter	64
68. Don Bosco Tech. Vaduthala, Cochin	1.	Turner	24
	2.	Fitter	48
69. Amuliya I.T.C., Ernakulam	1.	Fitter	32
70. Social Welfare Tech. School Association, Alwaye	1.	Fitter	64
	2.	Mech. (Motor Veh.)	32
	3.	Plumber	32
71. K.C.M.I.T.C., Koonammavu	1.	Fitter	64
	2.	Mech. (Motor Veh.)	32
	3.	Mech. (Ref. and A.C.)	32
	4.	Wireman	32
	5.	Draughtsman (Civil)	32
72. Balanagar Technical Institute, Mookannoor, Ernakulam	1.	Draughtsman (Civil)	32
	2.	Draughtsman (Mech.)	32
	3.	Fitter	48
	4.	Plumber	16
	5.	Sheet Metal Worker	16
	6.	Welder	12
	7.	Wireman	64
73. N.S.I.T.C. Valayanchirangara, Perumbavoor, Ernakulam	1.	Fitter	64
	2.	Electrician	32
	3.	Draughtsman (Civil)	32
74. K. M. George Memorial I.T.C., Muvattupuzha	1.	Fitter	64
	2.	Plumber	16
	3.	Welder	12
75. Skill Tech. Industrial Training Complex, Palarivattom, Ernakulam	1.	Electrician	32
	2.	Wireman	32
76. Blue Tronix I. T. C., Palluruthy, Cochin	1.	Fitter	16
	2.	Mech. (Ref. & A. C.)	16
	3.	Mech. (Radio & Tele.)	32
	4.	Draughtsman (Civil)	32
77. Parumala Mar Gregorious Memo. I.T.C. Thalacode, Mulanthuruthy	1.	Draughtsman (Mech.)	32
	2.	Draughtsman (Civil)	32
	3.	Plumber	16
	4.	Fitter	32
	5.	Electrician	32
78. Sree Narayana Mangalam I. T. C., Moothakunnum, N. Parur	1.	Draughtsman (Civil)	16
	2.	Fitter	16
	3.	Mech. (R & A. C.)	16
	4.	Plumber	16
	5.	Electrician	32
	6.	Stenography (Eng.)	32
79. S. N. I. T. C., Okkal, Rayonpuram, Ernakulam	1.	Stenography (Eng.)	32
	2.	Fitter	..
	3.	Electronics	..
	4.	Mech. (Radio & Tele.)	..
	5.	Mech. (Ref. & A. C.)	..
80. Cochin Tech. College, Kaloore, Ernakulam	1.	Stenography (Eng.)	16
	2.	Mech. (Ref. & A. C.)	16
	3.	Fitter	32
	4.	Draughtsman (Civil)	32

APPENDIX XV—(contd.)

(1)	(2)	(3)	(4)
81.	Industrial Training College, Palai	1. Fitter 2. Plumber 3. Wireman	32 16 32
82.	C. S. I. I. T. C., Muttom, Thudanganad P. O., Thodupuzha	1. Fitter 2. Plumber	64 32
83.	Mar Gregories Memorial I. T. C., Rajkumari, Santhanpara P. O., Idukki	1. Electrician 2. Mech. (Motor Veh.)	16 16
84.	Guru I. T. C., Thodupuzha East	1. Fitter 2. D/Man (Civil)	32 32
85.	Instruction Centre I. T. C., Thodupuzha East	1. Stenography	16
86.	St. Marys Orphanage Vocational Training Centre I. T. C., Fathimanagar, Trichur	1. Mech. (Motor Veh.) 2. Fitter 3. Welder 4. Machinist	32 64 24 32
87.	The Good Shepherd Technical Institute, Kunnamkulam	1. D/Man (Civil) 2. Electrician 3. Mech. (Ref. & A. C.)	32 32 32
88.	C. S. I. Technical Training Centre for Women, Bathel Asram, Trichur	1. Cutting & Tailoring	32
89.	R. Sankar Memorial I. T. C., Koorkancherry, Trichur	1. Electrician 2. Fitter	64 32
90.	Sree Vidyadhiraja I. T. C., Kuttanalloor P. O., Trichur	1. D/Man (Civil) 2. Mech. (Ref. & A. C.) 3. Fitter	32 16 32
91.	Akhila Kerala Ezhuthachan Samajam I. T. C., Viyyoor, Chelakkara, Trichur	1. D/Man (Civil) 2. Mech. (Ref. & A. C.)	32 32
92.	Thozhil Athyasana Peedom I. T. C., Kachery, Trichur-5	1. D/Man (Civil) 2. Fitter 3. Electrician 4. Stenography (Eng.) 5. Plumber 6. Sheetmetal Worker 7. Electronics 8. Mech. (Motor Vehicle)	16 32 32 16 32 32 32 32
93.	St. Xaviers I. T. C., Pulloor, Irinjalakuda	1. Electrician 2. D/Man (Civil) 3. Fitter 4. Stenography (Eng.) 5. Wireman 6. Mech. (Motor Vehicle) 7. Secretarial Practice 8. Electronics 9. Mech. (Radio & Tele.)	16 16 16 32 32 32 32 32 32
94.	Phonetic I. T. C., Nadathara P. O., Trichur	1. Stenography 2. D/Man (Civil) 3. D/Man (Mech.) 4. Mech. (Motor Vehicle)	16 16 16 32
95.	Cathedral I. T. C., Irinjalakuda, Trichur	1. Fitter 2. Welder 3. Electrician 4. Mech. (Motor Vehicle) 5. Mech. (Radio & Tele.) 6. Mech. (R. & A. C.)	32 32 32 32 32 32
96.	Muslim Dharmapariपालana Sangom I. T. C., Ezhur Road., Muthur, Tirur, Malappuram	1. D/Man (Civil) 2. Mech. (Ref. & A. C.) 3. Wireman 4. Plumber	32 32 32 16
97.	H. M. Orphanage I. T. C., Manjeri-12, Malappuram	1. Plumber 2. D/Man (Civil)	16 32
98.	Nilambur I. T. C. & College of Engg., Padikkunnu P. O., Nilambur	1. D/Man (Civil) 2. Mech. (Ref. & A. C.) 3. Fitter	16 16 16

APPENDIX XV—(contd.)

(1)	(2)	(3)	(4)
99.	M. E. S. I. T. C., Mundur, Palghat	1. D/Man (Civil) 2. Wireman 3. Plumber	32 64 16
100.	Kerala I. T. C., College Road, Palghat-1	1. D/Man (Civil)	16
101.	J. D. T. Islam I. T. C., Calicut	1. D/Man (Civil) 2. Mech. (Ref. & A. C.) 3. Wireman 4. Plumber 5. Stenography (Eng.) 6. Carpenter 7. Dress Making 8. Book Binding 9. Printing Machine Operator	48 32 32 32 16 16 32 32 32
102.	Fathima I. T. C. for Women, Old Court Road, P. B. 41, Calicut	1. D/Man (Civil) 2. Stenography (Eng.)	32 16
103.	Central Education Society, Central Tech. College Building, Calicut	1. Stenography (Eng.) 2. Mech. (Ref. & A. C.)	16 16
104.	K. C. Krishnan Memorial I. T. C., Feroke, Calicut	1. D/Man (Civil) 2. Plumber	16 16
105.	N. T. T. F. Tech. Training Centre, Tellicherry	1. Tool & Die maker	64
106.	Nirmala Training Centre, Pilathara, Mandur, Cannanore	1. Carpenter 2. Mech. (Radio & Tele.) 3. Electronics 4. Electrician 5. Mech. (Ref. & A. C.) 6. Wireman	16 16 48 32 48 32
107.	Kottar Technical Welfare Association I. T. C., Santhome Nagar, Sreekandapuram, Cannanore	1. D/Man (Civil) 2. Electronics 3. Mech. (Motor Vehicle)	32 32 32
*108.	Bharat Institute of Technology, Nanthencode, Trivandrum	1. Mech. (Radio & Television)	16
109.	Victory Educational Society I. T. C., Vavode, Kallikkadu	1. D/Man (Civil) 2. Mech. (Motor Vehicle) 3. Fitter 4. Electronics	32 32 32 32
110.	Janyamatha Training Institute, Nalanchira, Trivandrum-15	1. Stenography (Eng.) 2. Watch & Clock Maker 3. Mech. (Radio & Tele.) 4. Carpentry 5. Welder 6. Book Binding 7. Printing Machine Operator 8. Hand Composing and Proof Reading	32 32 32 16 16 -- 16 16
111.	Universal College of Engg. I. T. C., Oottukuzhi Road, Trivandrum	1. Mech. (Radio & Tele.)	16
112.	A. Achuthan Memorial I. T. C., Ulloor, Trivandrum	1. D/Man (Civil) 2. Electrician 3. Electronics 4. Mech. (Radio & Tele.)	16 16 16 16
113.	Sreesankara I.T.C., Idakkadom P O., Ezhukone, Kottarakkara	1. Printing Machine Operator 2. Stenography (Eng.) 3. Book Binding 4. Hand Compositor & Proof Reading	32 32 16 16
114.	Indian Institute of Engg., Punalur	1. Plumber 2. Fitter 3. Stenography (Eng.)	32 32 32
115.	Diana Institute of Technology, Karunagappally	1. Electronics 2. Fitter 3. Mech. (Motor Vehicle)	32 32 32

(1)	(2)	(3)	(4)
116.	Industrial Training Centre, Paravur P. O., Quilon	1. Electronics 2. Mech. (Radio & Tele.) 3. Electrician 4. Welder 5. Mech. (Diesel)	32 32 32 24 32
117.	Mezhuveli Panchayat I. T. C., Nediya-kala, Elavanthitta P. O.	1. D/Man (Civil) 2. Fitter 3. Plumber 4. Stenography (Eng.)	32 32 32 32
118.	The Good Shepherd's Educational & Cultural Society I. T. C., Thumpoli, P. B. No. 302, Alleppey	1. Sheetmetal Worker 2. Painter	32 32
119.	Asramam I. T. C., Nazareth Asramam, Othara, Thiruvalla-689546	1. Cutting & Tailoring	32
120.	St. Joseph's I. T. C., Thuravoor, Shertallai-688532	1. D/Man (Civil) 2. Fitter 3. Plumber 4. Electrician	32 32 32 32
121.	Sree Narayana I. T. C., Kalikavu, Pakalmattom P. O., Kuravilangad, Kottayam	1. Stenography (Eng.) 2. Draughtsman (Civil)	32 32
122.	Premier I. T. C., Mannanam P. O., Kottayam	1. Stenography (Eng.)	32
123.	Mar Mathews Boys Town I. T. C., Kothamangalam	1. Mech. (Radio and Tele.)	32
124.	Paravur I.T. C., Nanthiattukunnam, N. Paravur, Pin 683 513	1. Electrician 2. Welder 3. Fitter	32 24 32
125.	St. George I. T. C., Kadamattom, Kolanchery (via), Ernakulam, Pin 682 322	1. Electrician 2. Draughtsman (Civil) 3. Fitter 4. Mech. (Motor Vehicle) 5. Electronics	32 32 32 32 32
126.	Angamaly I. T. C., Near Govt. Hospital, Angamaly	1. Draughtsman (Civil) 2. Fitter	32 48
127.	Ernakulam I. T. C., Ernakulam	1. Draughtsman (Civil) 2. Electronics 3. Fitter 4. Secretarial Practice 5. Stenography (Eng.) 6. Stenography (Hindi)	32 32 32 32 32 32
128.	Al-Ameen I.T.C., Edathala, Alwaye, Ernakulam District	1. Plumber 2. Welder 3. Draughtsman (Civil) 4. Mech (R. A. C.)	32 24 32 32
129.	Kerala Institute of Engineering, Banerjee Road, Cochin-18	1. Mech. (R. A. C.) 2. Stenography (Eng.)	32 32
130.	Mar Severios Memorial I.T.C., Piravam-686 664	1. Fitter 2. Draughtsman (Civil)	32 32
131.	I. T. C., Njarakkal, Ernakulam	1. Draughtsman (Civil) 2. Fitter	32 32
132.	Haindava Sevasram, Geethabhavan Trust I.T.C. Alwaye	Not started	N.A.
133.	Gandhiji Memorial I. T.C., Thodupuzha	1. Fitter	32
134.	I. T. C., Adimaly P. O., Idukki	Not finalised	..
135.	Bappuji Sevak Samaj I. T. C., Chakkuppallam, Kumily, Idukki	1. Cutting and Tailoring 2. Stenography (Eng.)	32 32
136.	Sree Narayana Tailoring School I. T. C., Adimaly, Idukki	1. Cutting and Tailoring	32
137.	St. Mary's Institute, Vellathooval, Idukki	1. Stenography (Eng.)	32
138.	I. T. C., Kurikkassery P. O., Kallarkutty, Idukki	1. Stenography (Eng.)	32
139.	Seraphic I.T.C., Vellikulangara, Trichur-680 693	1. Cutting and Tailoring 2. Stenography (Eng.)	32 32

APPENDIX XV—(contd.)

(1)	(2)	(3)	(4)
140.	Snehabhavan I. T. C., Christ Craft Training Centre, Irinjalakuda	1. Blacksmithy 2. Welder 3. Sheetmetal Worker	32 24 32
141.	M. J. D. High School, Kunnankulam	1. Electrician 2. Draughtsman (Civil) 3. Stenography (Eng.) 4. Electronics 5. Fitter	32 32 32 32 32
142.	St. Thomas I.T.C., Kottappuram, Kodungalloor	1. Draughtsman (Civil) 2. Stenography (Eng.)	32 32
143.	Centre of Technical Studies, Kolathur P. O., (via) Angadipuram, Malappuram	1. Draughtsman (Civil) 2. Plumber 3. Wireman	32 32 32
144.	Jawahar Cultural Centre I. T. C., Malappuram	Not started	N.A.
145.	Geetha Bhavan Trust I. T. C., Palghat	Not started	N.A.
146.	S. N. Trust I. T. C., Palghat	Not started	N.A.
147.	Wynad Academy I. T. C., Chundalo, South Wynad	1. Electrician 2. Electronics 3. M. R. A. C. 4. Stenography (Eng.) 5. Cutting and Tailoring 6. Carpenter 7. Blacksmithy	32 32 32 32 32 32 32
148.	Mukkom Muslim Orphanage I. T. C., Calicut	1. Building Construction 2. Carpenter 3. Plumber 4. Printing Machine Operator 5. Electrician 6. Draughtsman (Civil) 7. Book Binding 8. Dress Making 9. Electronics 10. Stenography (Eng.)	32 32 32 32 32 32 32 32 32 32
149.	Calicut Orphanage I. T. C., Nallalam, Calicut	1. Draughtsman (Civil) 2. Plumber	32 32
150.	Success Institute of Commerce, Eranjickal, Kozhikode	1. Stenography (Eng.) 2. Cutting and Tailoring	32 32
151.	M. E. S. I. T. C., Kuttiadi	1. Draughtsman (Civil) 2. Plumber 3. Surveyor 4. M. R. A. C. 5. Stenography (Eng.)	32 32 32 32 32
152.	S. N. Educational Society I. T. C., Calicut	1. Electronics	32
153.	Jesus Engineering Educational Trust I. T. C., International College of Engineering, Tellicherry	1. M. R. A. C. 2. Fitter	32 32
154.	Bharath I. T. C., Tellicherry	1. M. R. A. C. 2. Plumber	32 32
155.	Sree Jagannath I.T.C., Temple Gate, Tellicherry-2	1. Electrician 2. Electronics 3. Draughtsman (Civil) 4. Stenography (Hindi) 5. Stenography (Eng.) 6. M. R. A. C. 7. Plumber 8. Mech. (Motor Veh.) 9. Mech. (Diesel) 10. Fitter	32 32 32 32 32 32 32 32 32 32
156.	Wisdom Commercial Institute, Kalliassery, Nettur, Tellicherry	1. Stenography (Eng.) 2. Stenography (Hindi)	32 32
157.	Little Flower I. T. C., Kelakam P. O., Cannanore, Pin-670674	1. Draughtsman (Civil)	32
158.	S. N. Trust I. T. C., Cannanore	Not started	N.A.

* Sl. Nos. 108 to 158 sanctioned in August, 1980.

Source: Directorate of Training.

**A REPORT ON GROWTH OF EMPLOYMENT IN THE STATE
GOVERNMENT SECTOR**

A. SARASAMMA



Introduction

Unemployment is the biggest challenge facing our country. In our state also this is a great problem. The state has undertaken many measures to tackle the situation but still the problem remains unsolved. In spite of the best of our efforts educated unemployment is high in this land of maximum literacy. Government is the biggest employer in Kerala. The private sector absorbs only a small part of the job seekers. The Government are forced to create large number of posts even in unremunerative departments to meet the social and welfare needs of the society. An attempt is made here to assess the growth of employment in the Government sector.

2. Objectives of the study

The following are the main objectives of the study.

1. To bring to light the employment position in different departments
2. To assess the number of employees under different grades
3. To study the growth trend of employment in various departments
4. To study the interdepartmental variation in the growth of employment.

3. Methodology of the study

This study is based on the data obtained from analysing the staff pattern given in Appendix II of the Budgets for the years 1960-61, 1970-71, 1974-75 and 1977-78.

4. Limitations of the study

1. Since the study is based on Budget analysis growth of employment relating to minor departments for 1960-61 could not be worked out.
2. The details of all employees working in a department could not be analysed since some of them were working on deputation and some were temporary additions to the concerned departments.
3. Employment generation under schemes sanctioned during the financial year for short durations after the publication of the Budget could not be taken into account.
4. Due to the variations in the classification of items under various heads of account and due to the omission of certain items in the Budget, large variations are noticed in employment under certain heads of account.

5. Employment position in different departments

The total number of Government employees in the year 1960-61 stood at 129025. It is composed of 404 Class I Officers, 7484 Class II Officers, 97714 Class III Officers, 16984 Class IV Officers and 6439 other officers. The number of employees during the year 1970-71 was 206372 comprising of 785 Class I Officers, 10473 Class II Officers, 159970 Class III Officers, 24998 Class-IV Officers and 10146 other Officers. In the year 1974-75 the Government departments provided employment for a total of 240826 persons. It included 1071 class I Officers, 13415 Class II Officers, 183211 Class III Officers, 30847 Class IV Officers and 12282 other Officers. And in the year 1977-78 the number of employees stood at 249529 constituting 1343 Class I Officers, 15324 Class II Officers, 191128 Class III Officers, 33059 Class IV Officers and 8675 other Officers.

Table I given below shows the employment position in different departments during the period under reference.

TABLE-1
Employment position

Category	Period			
	1960-61	1970-71	1974-75	1977-78
Class I	404	785	1071	1343
Class II	7484	10473	13415	15324
Class III	97714	159970	183211	191128
Class IV	16984	24998	30847	33059
Others	6439	10146	12282	8675
State Total	129025	206372	240826	249529

During the period under reference the Department of Education could offer employment to the maximum number of persons. A detailed statement of the employment position in different departments is given in Appendix I.

6. Employees under different grades

Employment position in different grades are non-comparable since there is wide variation in the grades over the time period. In the year 1960-61, 47 grades were in existence starting from a pay scale of Rs. 30-40 ending with 1200-1500. Persons drawing pay above Rs. 2000 was also classified as a group for the convenience of analysis. There were 38 persons in this class during the year 1960-61. In the period the largest number of employees were in the pay scale of Rs. 40-120. There were 15349 persons employed in the minimum pay scale of Rs. 30-40. A part from this there were 6422 part time and contingent employees in the state. A detailed break-up of gradewise employment position in the year 1960-61 in given is Appendix II A.

In the year 1970-71, there were 43 grades starting from a pay scale of Rs. 60-100 to Rs. 2500-2750. Officials getting a pay of Rs. 4000 and Rs. 3500 have also been classified separately for convenience of analysis. There were 1 and 16 number of persons getting a pay of Rs. 4,000 and Rs. 3,500 respectively in the year 1970-71. There were 9 persons in the grade of Rs. 2,500-2,750. During the period there were 24526 number of employees coming in the grade of Rs. 70-115. The part-time and contingent staff were classified separately. The detailed statement of the employees in the different grades during 1970-71 is given overleaf in Appendix II B.

In the year 1974-75 there were 42 grades starting from a pay scale of Rs. 70-115 to Rs. 2500-2750. As in the earlier case officers drawing a pay of Rs. 4000 and Rs. 3500 were classified separately. In this year the maximum number of employees were in the grade of Rs. 95-190. The number of contingent and part time employees are also furnished separately. A detailed statement of the grade wise classification is furnished in Appendix II C.

In the year 1977-78 there were 40 grades starting from a pay scale of Rs. 196-265 to 2500-2750. As in the earlier cases officers drawing a pay of Rs. 4000 and Rs. 3500 were classified separately. In this year the maximum number of employees were in the grade of Rs. 230-335. There were 8210 number of part time and contingent employees in this year. A detailed statement is given in Appendix II D.

A class-wise classification of employees is also attempted in this report. In the Budget for 1974-75 employees have been classified as Class I, Class II, Class III and Class-IV Officers. Based on the pay scale fixed for a particular class in the year 1974-75 the corresponding pay scales in the year 1970-71 and 1960-61 have been categorised as a particular class for the purpose of comparison. In Appendix II the arrangement of classes according to pay and scales is given in detail.

In the year 60-61 there were 404 Class I Officers. The corresponding figures for the years 1970-71, 1974-75, 1977-78 were 785, 1071 & 1343 respectively. The total number of Class II Officers during the period under reference stood at 7484, 10473, 13415 and 15324 respectively. There were 97714, 159970, 183211 and 191128 Class III employees respectively in the years 1960-61, 1970-71, 1974-75 and 1977-78. The number of Class IV employees stood at 16984, 24998, 30847 and 33059 respectively during the period under reference. Part-time and other contingent staff were classified separately for these years. A department-wise break-up of the class-wise classification is also given in Appendix II F. An index of the growth of employment under different classes is given in Appendix II G.

7. The growth trend of employment in the Government sector

This analysis established the growing trend of employment in the Government sector. During the decade following 1960-61 the overall employment in the Government sector increased by 59.59%. This sharp rise in employment is mainly due to expansion and development in different departments under the Government. During the next phase employment maintained the growth trend, but with a lower speed. The percentage growth stood at 16.70 during this phase ending with 74-75. During the next phase ending with 1977-78, employment kept the rising trend. But the growth was only 3.6%. Analysing the employment position in different departments, almost all departments except, the industries department, registered a growth in the number of persons employed, in the year 1970-71. But in the year 1974-75 departments like Agriculture, Fisheries Administration of Justices, Jails, P. H. E. D., Harijan Welfare and Co-operation showed a declining trend in the matter of employment absorption. In the year 1977-78, the declining trend in employment has come about in more departments. A detailed analysis of the figures is given in Appendix III A.

An attempt is also made to construct an index of the growth of employment in the Government sector. The year 1960-61 is taken as the base and index is worked out for different departments for the year 1970-71, 1974-75 and 1977-78. The employment growth index for the Government sector in Kerala are 160, 187 and 193 for the years 1970-71, 1974-75, and 1977-78 respectively. A department wise break-up of the index is given in Appendix III B.

8. Inter departmental growth trends

Employment growth index is the maximum in family planning under the Health Services. In the year 1970-71 the second highest index occurred, in respect of Soil & Water Conservation. In this period index was minimum in the industries sector. But in the year 1974-75 and 1977-78 the minimum index was under the head of account '283' comprising of Housing and Rural Development. In the year 1977-78 the minor irrigation wing of the P. W. D. marked a remarkable progress in the matter of employment as evidenced by its index for this year.

9. Summary and conclusions

The observation given above are based on the analysis of the staff pattern given in the Budget for the years 1960-61, 1970-71, 1974-75 and 1977-78. The employment position in different departments is worked out first. A grade-wise and class wise analysis is also attempted. The growth trend, its pattern, its speed and future trend are also brought out in the analysis. An index of the growth trend is also worked out.

It is proved beyond doubt that the Government are the biggest employer in the State. But the growth trend points out the fact that the Government sector can no more absorb the growing millions in the employment market. Hence other outlets for the unemployed have to be opened at the earliest. Self employment schemes can go a long way in avoiding the maddening craze for Government jobs.

APPENDIX I

Break up of employment position in different department for the period 1960-61, 1970-71, 1974-75 and 1977-78

Sl.No.	Head of Account	Name of Service/Department	1960-61	1970-71	1974-75	1977-78
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	211	State Legislature (Total)	114	169	315	268
		Legislature Secretariat	114	169	234	268
		Legislature's Hostel	..	..	81	..
2.	214	Administration of Justice	5693	6008	5894	6125
		High Court	..	422	406	488
		Civil and Sessions Court	5609	4252	3965	4029
		Criminal Court	..	1222	1283	1262
		Administrator General and official trustee	..	5	6	5
		Official receivers	..	14	36	36
		Legal Advisers and councils	..	93	103	130
		Assistant Public Prosecutor	84	..	93	175
3.	229 & 235	Land Revenue (Total)	7773	10130	11712	10703
		Village establishment	..	5271	5296	5297
		Collection of betterment levy	..	86	82	71
		Special Staff for collection of arrears of land revenue	..	..	194	193
		Survey department	..	354	372	363
		Joint verification of Interstate boundary	..	24	48	..
		Special Staff for assignment of Government lands	..	880	646	589
		Preparation of land records for the implementation of land reforms	..	2227	2758	2772
		Land Records	..	642	721	755
		Special settlement of cardamom lands	..	33	50	59
		Special staff for converting village records in metric system	..	..	140	149
		Land Reforms	..	..	865	..
		Implementation of Jenmikaram	..	43	..	..
	235	Other Services	..	570	540	378
		Collection of taxes on capital	..	..	..	100
4.	252	Secretariat General Services (Total)	1828	2547	2093	2319
		Administrative secretariat	1095	1490	949	1025
		Personal staff to the Ministers	134	156	266	315
		Finance	175	279	359	388
		Law	117	129	170	230
		Board of Revenue	307	398	284	283
		Committee for the revision of service rules	..	..	12	9
		Office of the Arbitrator, P.W.D. and P.H.E.D.	..	..	9	..
		State Language Commissioner	..	39	39	39
		Vigilance	..	18	5	8
		Data processing unit	..	19	..	..
		Committee for review in public service	..	16	..	..
		Training schools for giving training to pre-entry clerks	..	3	..	..
		Forests and Taxes department	..	..	..	22
5.	259 & 337	P.W.D. Roads and Bridges (Total)	3273	4076	3290	7818
		259 Public works	..	3582	6067	6454
		337 Roads and Bridges (N.H.)	..	494	2223	1364
6.	268	Pensions and Miscellaneous (Total)	..	15	17	8
		Miscellaneous general services	..	..	10	8
		Observatory, Trivandrum	..	6	7	..
		Rocket Launching Station	..	9	..	..
7.	276	Secretariat Social and Community Services	..	..	450	414
8.	277	Education (Total)	48110	182420	111222	80833
		(i) Primary (Total)	36702	53696	60237	56715
		Primary Schools	27230	53523	59912	56389
		Middle Schools	9472	..	..	..
		Mid-day-Meals	..	173	325	326
		(ii) Secondary (Total)	5670	13189	13724	14177
		High Schools	5279	..	..	..
		Secondary and Multipurpose Schools	391	..	..	..

Central Government

APPENDIX I—(contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
(iii)	Directorate of Public Instruction	1761	2678	1785	1590	
	D. P. I.	..	390	408	466	
	Planning and statistical unit	..	46	46	46	
	Regional Dy. Directorate	..	325	276	277	
	Inspection	..	1917	1055	801	
(iv)	Text Book publications	177	214	236	218	
(v)	University and other colleges (Total)	1482	1783	2331	2537	
	Arts college	1404	1643	2100	2182	
	Sanskrit college	78	115	161	182	
	I.A.S. coaching scheme	..	6	6	6	
	Opening of new colleges (Plan)	..	..	..	6	
	Starting of new courses in Govt. Colleges	..	19	64	32	
(vi)	Training colleges	220	132	183	134	
(vii)	Directorate of collegiate education	31	87	207	273	
(viii)	Engineering colleges	350	800	791	805	
(ix)	Law college (Total)	62	73	101	119	
	Law college	62	73	89	108	
	Kerala University appellate tribunal	..	..	12	11	
(x)	Basic training schools and institutions (Total)	411	470	454	441	
	Basic training schools	411	466	450	437	
	Audio-visual education	..	4	4	4	
(xi)	State institute of education	..	75	76	74	
(xii)	Directorate of technical education	39	79	113	125	
(xiii)	Polytechnics	393	955	943	1166	
(xiv)	Junior technical schools (Total)	387	1011	1008	1009	
	J.T.S.	..	820	835	853	
	Industrial training and education	387	191	173	156	
(xv)	Aided school staff	..	103649	25383	..	
	Primary	..	82788	..	..
	Secondary	..	20861	..	..
(xvi)	Hindi teachers appointment	..	467	2355	..	
(xvii)	School for S.C./S.T.	..	1360	..	..
(xviii)	Other education (Total)	425	1452	1338	1450	
	N.C.C.	194	1056	1030	1147	
	Physical education	40	40	42	41	
	Sanskrit schools	69	178	188	225	
	Social adult education	41	11	12	12	
	Hindi training institute	..	..	..	25	
	Preparation of Malayalam encyclopaedia	..	42	22	..	
	Relief to educated unemployed	..	..	29	..	
	Schemes under 5 year plan Govt. P.S.	..	..	15	..	
	Nursery training schools	5	8	..	..
	Post-graduate training college	..	7	..	..
	School for deaf, the dumb and the blind	40	110	..	..
	Diversified courses	36	..	..	..
(xix)	Printing technology	..	15	..	..
(xx)	Industrial training and education	387	191	173	156	
(xxi)	Apprentice training, Industrial training, Youth vocational centre, tailoring and garment making	379	85	66	83	
(xxii)	Diploma courses in shorthand and typewriting	..	7	8	..	
(xxiii)	Short term courses and teachers training programme	8	41	43	..	
9.	278. Art and culture (Total)	405	696	713	710	
	(i) Music Academies and music schools	56	94	115	115	
	(ii) School of Arts	64	66	55	32	
	(iii) Revi Varma school of painting	7	10	12	12	
	(iv) V.J.T. Hall and Tagore Theatre	..	17	15	16	

APPENDIX I—(contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
		(v) Fine Arts Education	..	11	..	32
		(vi) Archaeological department and palace bunglows (Total)	23	67	63	71
		Archaeology department	23	20	15	17
		Padmanabhapuram palace	..	30	31	31
		Trichur museum	..	9	9	15
		Krishnapuram palace	..	8	8	8
		(vii) Museum including Art museum	226	268	284	261
		(viii) State archives	..	69	73	73
		(ix) Libraries and reading room	29	84	86	88
		(x) Compilation of history of freedom movement in India	..	10	10	10
10.	280	Medical (Total)	9522	18402	22538	28790
		Allopathy	8340	16330	20117	24987
		Ayurveda	1147	1938	2223	3274
		Homeopathy	35	134	198	529
11.	281	Family planning (Total)	198	5242	5801	5490
		A. Direction and administration	198	38	355	300
		B. Family planning welfare centres	..	5020	5214	4824
		C. F.P. Other services and supplies	..	184	232	366
12.	282	Public Health and P.H.E.D. (Total)	6774	8661	8145	7196
		A. Public Health	5688	6271	4589	4039
		National malaria eradication	3340	2072	3173	2414
		Food administration	..	178	..	225
		Drugs control	..	..	156	167
		P.H. Training school	..	68	141	117
		P.H. Education	2186	38	..	..
		P.H. Laboratories	162	347	355	352
		Centres under D.H.S.	..	3568	764	764
		B. P. H. E. D. (Total)	1086	2990	3556	3157
		<i>Non-Plan</i> Direction	..	113	139	134
		Supervision	..	34	102	92
		Execution	..	841	1675	1358
		Investigation	..	69	260	..
		<i>Plan</i> I. P. D. Circles, Development and designing and unit	..	..	11	255
		Capital outlay	..	1319	1337	1318
		Central stores	..	14	92	..
13.	283	Housing, Rural & Urban Development (Total)	..	710	101	66
		Village housing project	..	22	22	23
		Staff for administration of housing schemes	..	..	43	43
		Direction	..	76	..	..
		Regional organisation	..	46	..	..
		District organisation	..	564	..	..
		Publication of panchayat raj	..	2	..	..
		Settlement of agriculture labourers on Government puramboks	..	..	21	..
		Estt. of housing commissioner and housing statistical cell	..	..	15	..
14.	284	Urban development (Total)	29	401	381	390
		Directorate of Municipalities	29	82	74	78
		Office of the Chief town planner	..	88	36	40
		Planning offices	..	231	260	235
		Other planning works (Kovalam, Vizhinjam, Kottayam M. C., Data bank etc.)	..	..	11	37
15.	288	Social security including Harijan Welfare	..	4318	2470	2882
		State Insurance	..	71	52	..
		Civil supplies	..	2558	302	320
		Relief and Rehabilitation of displaced persons	803	1629	1680	5652
		Direction and Administration Welfare of scheduled caste, welfare of scheduled tribe	..	..	268	566
		Social welfare	..	..	62	124
		Other social security and welfare programmes	121	60	..	..
488		Capital outlay	..	..	106	..

APPENDIX I—(contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)
16.	298	Co-operation (Total)	786	1646	1563	1918
		Direction & Administration	786	1119	133	139
		District Administration	..	..	300	322
		Field staff	..	513	420	489
		Audit of Co-operative Societies	..	..	679	903
		Co-operative education and research	..	14	31	65
17.	304	Miscellaneous Economic Services	727	1123	5211	7082
		Administration of Indian Partnership Act, 1932	..	..	1	1
		B. E. S.	527	942	734	788
		N. S. S.	..	..	61	61
		Wage structure	..	..	..	8
		Regulation of weights and measures	..	..	192	195
		Land ceilings	..	..	4223	5305
		Administration of land reforms measures	..	..	..	251
		Appellate authority under the K. L. R. Act, 1903	..	..	..	40
		Adoption of metric system	..	181	..	..
		Co-ordination of office	..	..	..	2
		Index of Industrial production	..	..	..	11
		Prices unit (strengthening of)	..	..	..	1
		Creation of Unit for statistics of Resources for planning	..	..	..	1
		Preparation of statistics of municipal town and cities and districts—Statistical Hand Book	..	..	..	..
		Survey of interstate goods traffic by roads	..	..	..	58
		Collection of statistics on villages/small scale industries	..	..	..	170
		Timely reporting survey of agricultural statistics	..	..	..	170
		Evaluation Unit	..	..	..	17
		State statistics	165	..	..	..
		Bureau of Economics Studies	35	..	..	..
18.	305	Agriculture (Total)	1841	4582	4467	5086
		A. Direction and Administration	..	..	1113	1104
		B. Multiplication and distribution of seeds	..	..	292	136
		C. Agrl. forms and reclamation and cultivation of paddy in forest land	..	..	201	331
		D. Manure and Fertilisers and high yielding variety	..	..	383	413
		E. Plant protection and F. Spraying	..	..	457	500
		G. Commercial crops	..	..	454	684
		H. Scheme for small and Marginal farmers	..	..	710	1141
		I. Extension of farmer's training	..	..	293	252
		J. Agricultural activities in N. E. S. Blocks	..	..	45	65
		Agricultural engineering research-cum-training etc.	..	..	330	308
		Agrl. information, propaganda, publicity etc.	..	..	63	..
		Storage and warehousing and marketing	..	..	51	38
		Hort culture	..	..	70	75
		Punja cultivation	..	..	23	23
19.	505	Capital outlay	..	..	16	16
20.	306	Minor irrigation (Total)	..	26	32	1777
		Ground water survey	..	..	30	27
		Other minor irrigation works	..	..	2	1750
21.	307	Soil and water conservation	332	612	830	979
		Direction and Administration	..	..	131	179
		Soil testing	..	..	114	149
		Research	..	..	24	63
		Soil conservation scheme	..	..	611	588
22.	308	Area development	..	14	78	23
23.	309 & 509	Food and Nutrition	..	..	1870	1750
	509	Food	..	..	136	68
	509	Capital outlay on food	..	..	1734	1682
24.	314	Dairy development	129	269	811	715
		Direction and Administration	..	..	87	72
		Extension service units	..	..	45	45

APPENDIX I (Contd.)

1	2	3	4	5	6	7
		Establishment of milk colonies	..	..	1	9
		Rural Dairy extension service	..	..	98	10
		Rural Dairy Centres	..	..	..	21
		Improving Milk production	..	..	580	559
		Total			679	599
25	312	Fisheries (Total)	1342	1724	964	1351
		Direction and Administration	..	403	486	547
		Research	..	114	95	108
		Education and Training	..	899	108	104
		Indian Fisheries	..	17	..	..
		A. N. P.	..	17	..	..
26	314	Community development	3902	3646	4727	4776
		General	..	..	1010	1021
		Community development programmes	..	..	..	4755
		Direction and Administration	..	41	42	41
		Recurring expenditure on N. E. S. Pattern	..	3476	3293	3257
		Ex. training centre	..	98	101	119
		Nutrition	..	..	281	338
		Local development works	..	31	..	..
27	320 & 520	Industries (Total)	571	504	599	514
		Direction and administration	..	364	423	417
		Industrial research education and training	226	..	46	..
		Educated un-employed programmes	..	..	54	19
		Industrial statistical Unit	..	..	15	15
		Capital outlay on industries	20	19	16	17
		Government ceramic factory	80	..	..	..
		Cycle rim factory	19	..	..	..
		Rubber factory	61	..	..	..
		Travancore Plywood factory	46	..	..	..
		Kerala soap institute	40	..	..	..
		Hydrogenation factory	40	..	..	..
		Sharkliver oil factory	32	..	..	..
		Government school of commerce	7	..	..	..
		Industrial lab, tool room, service centre, common service facility centre	..	90	..	..
		Revitalation of Beedi industry	..	20	..	..
		Scientific and research	..	11	..	..
		Others	..	..	..	46
28	321 & 521	Village and Small Scale Industries	1002	798	1096	1034
		Industrial school and others	149	..	..	..
		Direction and administration	..	..	517	596
		Industrial estates	..	..	41	41
		Piolet intensive development project	..	5	..	14
		Bleaching and calendering plant including warping and sizing unit	..	12	14	..
		Small scale industries	408	126	287	140
		Statistical Unit	..	..	27	128
		Handloom industries	342	243	69	..
		Other village industries	..	213	..	14
		Research and Training	..	..	..	74
		Coir and other village industries	103	180	119	..
		Other expenditure	..	..	3	8
		Capital outlay on village and small scale industries	..	19	19	19
29	333 & 533	Irrigation-Navigation Drainage and Flood control	2455	5696	7226	5937
		Direction and administration	..	..	..	3069
		Investigation-Research Planning Circle (Peechi)	2455	..	..	268
		Flood control project	..	..	..	322
	333	Irrigation	..	5696	7226	..
		Periyar valley	..	113	175	..
		Irrigation projects (Direction and Administration)	..	..	..	..
		Minor irrigation	..	5583	6566	..

APPENDIX I (Contd.)

1	2	3	4	5	6	7
	533	Irrigation	..	..	..	2278
		Periyar valley	..	..	..	263
		Thannir Mukkam	..	..	..	69
		Kallada	..	..	..	537
		Pamba	..	..	..	418
		Chettupuzha	..	..	..	153
		Kanjirapuzha	..	..	..	275
		Kuthadi	..	..	..	211
		Phazhassi	..	..	..	250
		Chemny mupli	..	..	..	17
		Muvattupuzha and Thodupuzha	..	..	..	75
		P. V. Project	..	..	..	175
<i>Irrigation projects (non commercial)</i>						
<i>Direction and administration</i>						
		Chief Engineer	..	..	..	446
		Project Circle Kottarakkara	..	..	..	39
		Minor irrigation circle, Trivandrum	..	..	..	4970
		Investigation, Research and Planning Centre, Peechi	..	..	..	514
		Flood control projects	..	..	..	1082
Kerala State total employment			129025	206372	240826	249529

Sl. No.	Head of account	Name of Department	Above Rs.													
			(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)			
12	252	Secretariat—General, Social and Community and Economic Service (Total)	1	..	..	..	1	14	1	4	7	1	2
276	296	Ministers	..	..	..	..	..	..	..	..	1	..	..	
		Law Department	..	..	..	..	..	..	..	..	..	..	..
		Finance Department	..	..	..	..	..	..	..	..	..	..	..
		Board of Revenue	..	..	..	..	..	1 I.A.S.	..	..	..	..	..
		Govt. Secretariat	..	..	..	..	..	13	..	..	..	..	..
		Planning Secretariat	..	..	..	..	..	..	..	..	..	..	..
		Store purchase Division	..	..	..	..	..	..	..	..	..	..	..
13	254	Treasury and Accounts Administration	..	..	..	..	..	..	..	..	1	..	..	
		Sub Treasury	..	..	..	..	..	..	..	..	..	..	..
		University Audit	..	..	..	..	..	..	..	..	..	..	..
		Local Fund Audit Establishment	..	..	..	..	..	..	..	..	1	..	..	
		Dist. Treasury Establishment	..	..	..	..	..	..	..	..	..	..	..
14	255	Police	..	..	..	..	..	..	..	..	..	..	..
15	260	Fire Protection and Control	..	..	..	..	..	..	..	..	..	..	..
16	256	Jails	..	..	..	..	..	..	..	..	..	..	..
17	258	Stationery and Printing	..	..	..	..	..	..	..	..	..	..	..
19	259 & 337	P. W. D., Roads and Bridges	..	..	..	3	..	..	..	..	..	..	..
20	265 & 268	Other Administrative Services	1	..	..	..	..	..	..	..	1	..	..	
21	277	Education (Total)	..	..	..	1	..	..	2	12	63	..	..	
		Primary	..	..	..	..	..	..	..	..	..	..	..
		Secondary	..	..	..	..	..	..	..	..	..	..	..
		Directorate of Public Instruction	..	..	..	..	..	..	..	..	..	..	..
		Text book Publication	..	..	..	..	..	..	..	..	..	..	..
		University and other Colleges	..	..	..	..	..	..	..	..	..	..	..
		Training College	..	..	..	..	..	..	..	..	..	..	..
		Directorate of Collegiate Education	..	..	..	..	..	..	..	..	..	..	..
		Engineering College	..	..	..	..	..	..	2	9	13	..	..	
		Law College	..	..	..	..	..	..	..	..	..	..	..
		Basic Training Schools and Institutions	..	..	..	..	..	..	..	..	..	..	..
		State Institute of Education	..	..	..	..	..	..	..	..	..	..	..
		Directorate of Technical Education	..	..	..	1	..	..	..	..	..	..	..
		Poly technic	..	..	..	..	..	..	..	..	..	..	..
		Junior Technical Schools	..	..	..	..	..	..	..	..	..	..	..
		Aided School Staff	..	..	..	..	..	..	..	..	..	..	..
		Hindi Teacher	..	..	..	..	..	..	..	..	..	..	..
		School for Scheduled Castes and Scheduled Tribes	..	..	..	..	..	..	..	..	..	..	..
		Other Educations	..	..	..	..	..	..	..	..	1	..	..	

Sl. No.	Head of account	Name of Departments	Above Rs. 2000	1200—1500	1000—1500	1000—1200	850—1300	800—1800	800—1000	600—900	500—800	475—700	450—600
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(15)	(14)
39	311	Dairy Development	..	..	..	..	..	..	..	..	..	..	..
40	312	Fisheries (Total)	..	..	..	..	..	..	..	1	..	..	..
		Fisheries	..	..	..	..	..	..	..	1	..	..	..
41	313 & 513	Fishery School	..	..	..	..	..	..	..	..	3	..	..
		Forest	..	..	..	..	..	..	1	..	..	..	..
42	314	Community Development (Total)	..	..	..	..	..	..	..	..	..	..	..
		Community Development Project	..	..	..	..	..	..	..	..	..	..	..
		National Extension Service and Local Development Works	..	..	..	..	..	..	..	..	..	..	..
		Block Headquarters+Training Schemes for B.D.Os.	..	..	..	..	..	..	..	..	..	..	..
43	320 & 520	Extension Training Centres Industries (Total)	..	..	..	..	..	1	..	1	5	..	..
		Government ceramic concerns	..	..	..	..	..	..	..	..	..	..	..
		Non-pensionable staff	..	..	..	..	..	..	..	..	..	..	..
		Rubber Factory	..	..	..	..	..	..	..	..	1	..	..
		Cycle Rim Factory	..	..	..	..	..	..	..	..	..	..	..
		Travancore Plywood Industries Pensionable, Non-pensionable	..	..	..	..	..	..	..	..	1	..	..
		Shark Liver Oil Factory and Oil Factory	..	..	..	..	..	..	..	..	1	..	..
		Kerala Soap Institute	..	..	..	..	..	..	..	..	1	..	..
		Hydrogenation Factory	..	..	..	..	..	1	..	1	..	..	..
		Industries Development	..	..	..	..	..	..	..	1	..	..	..
44	321	Government Schools and others Village and Small Industries (Total)	..	..	..	..	..	..	..	..	..	..	..
		Industrial Schools and others	..	..	..	..	..	..	..	..	..	..	..
		Handloom Industry	..	..	..	..	..	..	..	..	..	..	..
		Khadi Schemes	..	..	..	..	..	..	..	..	..	..	..
		Small Industries	..	..	..	..	..	..	..	..	..	..	..
45	328	Coir Development	..	..	..	..	..	..	..	..	..	..	..
		Mines, Minerals and Geology (Scientific Departments Geological Departments)	..	..	..	..	..	..	..	3	16	..	..
46	333 & 533	Irrigation	..	..	..	..	..	..	..	..	..	..	..
47	335 & 535	Ports, Light house and Shipping	..	..	..	..	..	..	..	1	1	..	..
48	338	Road and Water Transport	..	..	..	..	..	..	..	..	..	..	..
49	339	Tourism	..	..	..	..	..	..	..	..	..	..	..
		Grand total	38	5	6	22	25	24	55	227	1	3	

Sl. No.	Head of account	Name of Department	400—700	350—950	350—700	350—600	350—500	350—450	300—700	300—590	250—590	250—500	250—400	200—400	200—350	200—300
(1)	(2)	(3)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)
12	252	Secretariat—General, Social and Community and Economic Service (Total)	2	..	73	..	..	..	..	..	..	1	1	..	189	..
726	296	Ministers	..	..	8	..	..	..	..	..	..	..	..	..	2	..
		Law Department	..	..	10	..	..	..	..	..	..	..	..	..	11	..
		Finance Department	..	..	9	..	..	..	..	..	..	6	..	..	19	..
		Board of Revenue	..	..	7	..	..	..	..	..	..	..	1	..	15	..
		Govt. Secretariat	..	..	37	..	..	..	..	..	..	..	..	..	87	..
		Planning Secretariat	2	..	..	..	..	..	..	..	..	..	..	..	1	..
		Store Purchase Division	..	..	2	..	..	..	..	..	..	..	..	..	4	..
13	254	Treasury and Accounts Administration	..	..	..	11	..	..	..	..	..	..	..	..	14	..
		Sub Treasury	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		University Audit	..	..	..	1	..	..	..	..	..	..	..	..	..	..
		Local Fund Audit Establishment	..	..	..	1	..	..	..	..	..	5	..	..	14	..
		Dist. Treasury Establishment	..	..	..	9	..	..	..	26	..	..	..	..	104	..
		Police	..	..	..	..	..	..	..	..	..	..	..	..	3	..
14	255	Fire Protection and Control	..	..	..	..	..	..	..	..	..	..	..	..	4	..
15	260	Jails	1	..	..	..	3	..	..	..	..	1	..	..	4	2
16	256	Stationery and Printing	1	..	..	..	..	..	..	..	..	..	..	1	4	..
17	258	P. W. D., Roads and Bridges	..	..	..	1	..	..	..	122	..	2	..	1	18	..
19	259 & 337	Other Administrative Services	..	..	..	1	..	..	..	2	..	2	..	..	3	..
20	265 & 268	Education (Total)	76	..	..	1	..	..	..	32	..	74	170	556	5	..
21	277	Primary	..	..	..	..	..	..	..	..	..	..	163	..	..	..
		Secondary	..	..	..	1	..	..	..	19	..	4	..	..	2	..
		Directorate of Public Instruction	..	..	..	..	..	..	..	1	..	1	..	..	..	..
		Text-book Publication	1	..	..	..	..	..	..	2	..	..	..	492	..	..
		University and other Colleges	65	..	..	..	..	..	..	..	..	..	..	5	..	..
		Training College	2	..	..	..	..	..	..	5	..	..	..	24	..	..
		Directorate of Collegiate Education	..	..	..	..	..	..	..	..	..	41	..	..	..	..
		Engineering College	4	..	..	..	..	..	..	..	..	..	..	..	..	..
		Law College	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Basic Training Schools and Institutions	..	..	..	..	..	..	..	..	..	..	2	..	..	..
		State Institute of Education	..	..	..	..	..	..	..	..	..	..	..	..	1	..
		Directorate of Technical Education	..	..	..	..	..	..	..	..	..	25	..	25	2	..
		Polytechnic	..	..	..	..	..	..	..	2	..	..	..	..	..	..
		Junior Technical Schools	4	..	..	..	..	..	..	..	..	..	..	..	..	..
		Aided School Staff	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Hindi Teacher	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		School for Scheduled Castes and Scheduled tribes	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Other Education	..	..	..	..	..	..	..	3	..	2	5	10	..	..

Sl. No.	Head of account	Name of Departments	400—		350—		350—		350—		300—		250—		200—		200—		(28)
			700	950	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)		
39	311	Dairy Development										5							
40	312	Fisheries (Total)		1			3				3	8	3			1			2
		Fisheries		1			3				3	8				1			2
41	313 & 513	Fishery School									1	2				1			
		Forest					33												
42	314	Community Development (Total)	1		1	1					2	4	1			140			1
		Community Development Project	1							1		1				4			
		National Extension Service and Local Development Works																	
		Block Headquarters+Training Schemes for B.D.Os.			1							1				135			
43	320 & 520	Extension Training Centres	8								1	2	1			1			1
		Industries (Total)					2				15	3	1			2			4
		Government Ceramic Concerns	2								2								1
		Non-Pensionable Staff									1								
		Rubber Factory	1								2								
		Cycle Rim Factory																	
		Travancore Plywood Industries Pensionable, Non-pensionable	1																
		Shark Liver Oil Factory and Oil Factory											1						1
		Kerala Soap Institute										1							
		Hydrogenation Factory					2					2							2
		Industries Development	4																2
44	321	Government Schools and others										2				2			12
		Village and Small Industries (Total)	4				1				4	1			1				7
		Industrial Schools and others										1							
		Handloom Industry	1																
		Khadi Schemes	1																
		Small Industries	1								3								4
		Coir Development	1								1								1
45	328	Mines, Minerals and Geology (Scientific Departments, Geological Departments)	1																
46	333 & 533	Irrigation						1			74					20			
47	335 & 535	Ports, Light house and Shipping																	
48	338	Road and Water Transport									1								1
49	339	Tourism	1																
		Grand total	174	1	75	257	4		1	446		233	210	616	849				100

Sl. No. of account	Head of account	Name of Department	150— 350	150— 300	150— 260	125— 225	125— 200	100— 200	90— 200	80— 180	65— 80	60— 150	55— 65	50— 200
(1)	(2)	(3)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
1	211	State Legislature	..	..	..	21	..	..	13	4	..	..	..	2
2	212	Governor's Secretariat	..	..	..	1	..	..	6	..	..	..	..	2
3	214	Administration of Justice	26	..	31	77	1	..	35	321	..	..	..	148
4	215	Election	..	2	..	..	..	..	4	..	..	..	..	1
5	229 & 235	Land Revenue and collection of Taxes in capital Land Revenue Survey Department Land Records	..	..	30	24	..	..	..	83	..	..	..	..
			..	..	15	1	..	..	..	5	..	..	..	..
			..	..	11	4	20	..	..	42	..	..	..	..
			..	..	5	3	..	..	..	36	..	..	..	..
6	230	Stamps and Registration (Total)	..	..	..	..	182	1	..	255	..	..	..	..
		Stamps	..	..	1	..	..	1	..	5	..	..	..	..
		Registration	..	..	4	..	182	..	..	250	..	..	..	..
		Central Government Stamp Depot	..	..	..	..	..	..	..	..	..	..	..	..
7	239	State Excise	..	20	..	..	..	80	..	16	..	..	..	..
8	240 & 245	Agrl. Income Tax and (other Taxes and duties on commodities and Services) Sales Tax	..	..	9	..	160	..	..	134	..	..	..	11
9	241	Taxes on vehicles	..	..	3	5	..	38	..	29	..	..	..	1
10	247	District Administration and other fiscal, Social Community Services (Total)	1	..	98	30	..	1	1	345	..	..	..	18
		National Savings Directorate	..	..	..	..	..	..	1	..	..	..	..	..
		Liaison Officers and Staff	..	..	2	..	..	..	..	2	..	..	..	..
		District Collectorate and Magistrate	..	..	20	13	..	..	..	195	..	..	..	18
		G. M. F. Section	..	..	..	..	..	..	..	..	..	..	..	..
		Court of Wards and Taluk Officers	..	66	16	..	..	..	137	..	..	..	..	..
		Special Staff for the acquisition of land for Railways	..	..	..	..	..	..	..	3	..	..	..	..
		Land acquisition office	..	..	1	..	..	..	..	3	..	..	..	..
		Scheme under Second 5 Year Plan	1	..	9	1	..	1	..	5	..	..	..	..
11	251	P. S. C.	..	..	10	..	..	..	31	..	..	..	..	24

Sl. No.	Head of Department	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
		150—350	150—300	150—250	125—225	125—200	100—200	90—200	80—180	65—80	60—150	55—65	50—200
(1)	(2)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)
12	252	Secretariat—General, Social and Community and Economic Service (Total)	..	16	3	8	1	444	63	..	..	..	55
12	276	Ministers	..	..	..	..	..	17	1	..	..	..	8
12	296	Law Department	..	1	..	..	..	31	3	..	..	..	6
		Finance Department	..	2	..	..	..	54	1	..	..	..	6
		Board of Revenue	..	2	3	8	1	323	58	..	..	..	6
		Govt. Secretariat	..	11	..	..	..	4	..	..	..	..	28
		Planning Secretariat	..	..	..	..	..	15	..	..	..	..	1
		Store Purchase Division	..	..	..	..	..	15	189	..	..	..	1
13	254	Treasury Accounts (Total)	..	61	9	..	..	35	88	..	..	..	1
		Sub Treasury	..	38	..	..	..	..	..	..	..	..	..
		University Audit	..	1	..	..	..	1	..	..	..	..	1
		Local Fund Audit Establishment	..	12	..	..	..	34	..	..	..	..	..
		Dist. Treasury Establishment	..	10	9	..	..	..	101	..	..	..	..
14	255	Police	5	8	18	385	..	..	177	1564	..	..	18
15	260	Fire Protection and Control	..	..	..	13	..	..	4	..	..	..	..
16	256	Jails	3	9	..	..	33	..	1	..	61	15	..
17	258	Stationery and Printing	..	9	21	..	25	2	185	..	..	..	1
19	259 & 337	P. W. D., Roads and Bridges	25	337	26	..	..	..	570	..	..	..	15
20	265 & 268	Other Administrative Services	..	2	3	6	..	..	24	..	..	..	4
21	277	Education (Total)	27	57	99	62	1	..	4035	26	264	..	8
		Primary	..	..	..	..	1	..	..	2	..	..	..
		Secondary	..	650	..	..	1	..	3942	13	243	..	..
		Directorate of Public Instruction	..	162	19	..	..	..	294	..	..	..	2
		Text—book Publication	..	6	1	..	..	..	31	..	..	..	1
		University and Other Colleges	19	4	30	55	..	..	46	3	3	..	1
		Training College	1	22	2	..	..	..	29	..	18	..	..
		Directorate of Collegiate Education	..	2	..	..	..	..	6	..	..	..	1
		Engineering College	3	..	2	..	..	..	18	..	..	..	1
		Law College	..	..	..	..	..	..	3	..	..	..	..
		Basic Training Schools and Institutions	..	1	..	..	..	..	32	..	..	..	..
		State Institute of Education	..	3	..	..	..	..	..	..	..	..	..
		Directorate of Technical Education	..	3	..	..	..	..	7	..	..	..	2
		Polytechnic	..	2	2	5	..	..	68	..	..	..	..
		Junior Technical Schools	..	46	44	..	..	..	140	..	..	..	..
		Aided School Staff	..	7	..	..	..	..	..	..	..	..	..
		Hindi Teacher	..	..	..	..	..	..	..	..	..	..	..
		School for Scheduled Castes and Scheduled Tribes	..	..	..	..	..	..	..	..	..	..	..
		Other Educations	4	6	1	..	..	..	19	11	..	..	..

Sl. No.	Head of account	Name of Department	50—	45—	40—	40—	40—	35—	35—	30—	Contingency & Part-time	Total
			125	55	120	100	80	60	45	40		
			(41)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)
1	211	State Legislature	14	..	5	..	..	..	3	26	17	114
2	212	Governer's Secretariat	7	..	1	7	2	7	7	77	..	127
3	214	Administration of Justice	76	..	1325	1039	15	19	82	2211	14	5593
4	215	Election	7	..	..	1	..	..	1	9	..	29
5	229 & 235	Land Revenue and collection of Taxes in capital (Total)	..	..	816	1124	17	2	3	1740	3746	7773
		Land Revenue	..	..	690	931	1	..	..	1416	3721	6784
		Survey Department	..	..	59	19	16	2	3	91	..	420
		Land Records	..	..	67	174	..	..	..	233	25	569
6	230	Stamps and Registration	..	..	844	56	1	..	6	457	2	1866
		Stamps	..	..	14	42	1	..	..	12	..	79
		Registration	..	..	828	12	..	..	6	443	2	1780
		Central Government Stamp Depot.	..	..	2	2	..	..	..	2	..	7
7	239	State Excise	..	..	383	354	11	..	773	20	..	1664
8	240 & 245	Agri. Income Tax and (Other Taxes and duties on Commodities and Services) Sales Tax	..	..	586	12	19	..	1	372	..	1414
9	241	Taxes on Vehicles	..	..	121	..	8	..	..	40	..	265
10	247	District Administration and other Fiscal, Social Community Services (Total)	4	..	1319	122	33	57	4	734	..	2892
253	295	National Savings Directorate	3	..	..	..	..	..	..	2	..	8
		Laison Officers and Staff	..	..	..	5	..	..	..	6	..	17
		District Collectorate and Magistrate	..	..	539	26	..	19	2	233	..	1121
		G. M. F. Section	1	..	..	..	..	..	..	1	..	3
		Court of Wards and Taluk Officers	..	..	718	74	32	..	..	411	..	1544
		Special Staff for the acquisition of land for Railways	..	..	2	4	..	..	..	8	..	19
		Land Acquisition Office	..	..	15	14	..	..	..	8	..	41
		Scheme under Second 5 Year Plan	..	..	40	4	..	6	2	65	..	139
11	251	P. S. C.	45	..	..	..	1	..	5	38	..	186

Sl. No.	Head of account	Name of Department	50— 125	50— 150	45— 55	40— 120	40— 100	40— 80	35— 60	35— 45	30— 40	Contingency and Part- time	Total
			(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)
12	252	Secretariat- General Social and Community and Economic Service (Total).	292	..	7	144	2	18	16	48	471	..	1835
276	296	Ministers	6	..	..	3	..	..	..	11	77	..	134
		Law Department	15	..	..	4	..	..	..	2	28	..	117
		Finance Department	28	..	..	..	..	1	2	3	46	..	175
		Board of Revenue	..	..	7	136	2	2	..	18	34	..	307
		Govt. Secretariat	236	..	..	..	..	14	10	13	282	..	1039
		Planning Secretariat	..	..	..	1	..	..	1	..	..	..	7
		Store Purchase Division	7	..	..	..	..	..	2	1	4	..	36
		Treasury and Accounts (Total)	105	5	..	471	..	4	65	..	169	..	1145
13	254	Sub Treasury	..	..	..	184	..	..	42	..	81	..	433
		University Audit	5	..	..	..	..	..	..	..	2	..	10
		Local Fund Audit Establishment	100	..	..	..	..	4	..	..	36	..	208
		Dist. Treasury Establishment	..	5	..	287	..	..	23	..	50	..	494
		Police	..	3	11062	356	28	4	5	7	114	..	13912
14	255	Fire protection and control	..	..	..	16	90	53	24	210	7	..	420
15	260	Jails	..	..	..	38	4	5	..	469	60	1	703
16	256	Stationery and Printing	..	48	..	768	16	31	98	3	27	74	1318
17	258	P. W. D., Roads and Bridges	..	280	..	966	118	37	9	5	684	..	3273
19	259 & 337	Other Administrative Services	3	..	9	74	5	8	1	19	65	..	234
20	265 & 268	Education (Total)	2	7	2	36781	143	484	908	103	2335	893	48110
21	277	Primary	..	..	..	34807	..	348	631	..	668	246	36702
		Secondary	..	..	..	272	40	2	13	35	540	369	5670
		Directorate of Public Instruction	..	..	..	854	..	32	..	1	213	141	1761
		Text book Publication	..	1	..	59	4	..	54	..	17	..	177
		University and other Colleges	1	..	..	115	42	76	88	26	369	10	1482
		Training College	..	..	..	76	7	2	5	3	45	2	220
		Directorate of Collegiate Education	..	..	..	14	..	..	..	..	7	..	31
		Engineering College	1	..	..	84	2	..	40	..	90	9	350
		Law College	..	..	..	6	4	..	..	1	36	7	62
		Basic Training Schools and Institutions	..	..	..	224	8	13	6	27	41	57	411
		State Institute of Education	..	..	..	18	..	..	..	..	..	..	..
		Directorate of Technical Education	..	..	..	76	11	11	43	3	67	3	393
		Poly-technic	..	..	..	44	1	..	24	5	75	15	387
		Junior Technical Schools	..	..	..	..	..	..	..	..	..	..	..
		Aided School Staff	..	..	..	..	..	..	..	..	..	..	..
		Hindi- teacher	..	..	..	..	..	..	..	..	..	..	..
		School for Scheduled Castes and Scheduled Tribes	..	..	..	..	..	..	..	..	..	..	..
		Other Education	..	6	2	132	24	..	4	..	161	34	425

22	278	Art and Culture	3	12	41	16	21	6	9	227	3	405
23	280	Medical (Total)	383	1118	273	273	29	314	1740	1609	1499	9668
		Allopathy	381	1031	60	60	27	308	1473	1356	1498	8486
		Ayurveda	2	86	201	201	1	2	262	248	1	1147
		Homeopathy	..	1	12	12	1	4	5	5	..	35
24	281	Family Planning	21	8	1	1	..	1	..	5	102	198
25	282	Public Health and P. H. E. D. (Total)	808	1275	243	243	33	370	1702	1248	6	6774
A & B												
482		Public Health Education	512	490	35	35	..	..	141	689	3	2186
		Water Supply and Drainage	83	263	92	92	20	2	21	253	..	1086
		Anti-Malaria Schemes	213	483	126	126	1	347	1540	272	3	3340
26	283	Public Health Laboratory	..	39	..	..	12	21	..	34	..	162
27	284	Housing, Rural Development	..	138	..	..	2	..	..	99	..	311
28	285	Urban Development	..	..	..	..	..	..	..	..	..	29
		Information and Publicity (Public relations)	23	6	7	7	1	1	2	44	..	162
29	287	Labour and Employment (Total)	..	307	11	11	..	33	..	162	1	723
		Welfare Work	..	189	5	5	..	28	..	86	1	393
		Industrial Tribunal and Labour Court	..	7	5	5	..	..	..	10	..	38
		Employment Exchange	..	56	..	..	..	4	..	26	..	127
		Labour and Miscellaneous	..	55	1	1	..	1	..	40	..	165
30	288 & 488	Social Security and Welfare (including Harijan Welfare) (Total)	1	509	4	4	1	2	7	185	5	921
		Harijan Welfare	..	462	2	2	1	2	4	161	3	803
		State Insurance	..	18	..	..	..	..	..	3	..	28
		History of Freedom Movement S.S. & A. Board Scheme for District Grzetter	1	29	2	2	..	..	3	21	2	90
31	298	Co-operation	..	116	2	2	..	2	2	216	..	786
32	304	Other General Economic Services (Total)	4	480	..	..	..	..	..	35	..	727
		State Statistics	1	140	..	..	..	..	..	1	..	165
		Statistical Bureau	3	331	..	..	..	..	..	29	..	527
		Bureau of Economics and Statistics	4	9	..	..	..	..	..	5	..	35
33	305 & 505	Agriculture (Total)	14	811	132	132	5	231	3	506	..	2188
		Agricultural Education	..	20	8	8	4	7	..	25	..	117
		Agricultural Directorate	12	771	86	86	1	223	3	459	..	1965
		Agricultural College Farm	..	4	3	3	..	1	..	6	..	16
		Agriculture Marketing	..	6	..	..	..	..	..	2	..	28
		Agriculture Engineering	..	10	35	35	..	..	..	16	..	67
		Minor Irrigation	..	..	..	..	..	..	..	..	..	..
		Soil and Water Conservation	..	..	..	..	..	..	..	..	..	..
		Area Development	..	..	..	..	..	..	..	..	..	..
		Food and Nutrition	..	..	..	..	..	..	..	..	..	..
34	306	Animal Husbandry (Total)	301	116	15	15	..	7	..	372	..	1019
35	307	Animal Husbandry	7	35	41	41	..	2	..	41	..	128
36	308	Schemes under the 2nd Five Year Plan	786	77	10	10	..	1	..	310	..	799
37	309 & 509	Veterinary College	8	4	4	4	..	4	..	21	..	92

Sl. No.	Head of account	Name of Departments	50—125												part-time and Contingency	Total		
			(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)					
39	311	Dairy Development	7	17	..	4	4	..	65	18	129	..	..	..	..	..	..	..
40	312	Fisheries (Total)	50	534	1	107	3	3	383	..	1342	..	..	..	..	..	..	..
		Fisheries	50	101	1	107	3	3	304	..	802	..	..	..	..	..	..	..
		Fishery School	..	433	..	..	..	..	79	..	540	..	..	..	..	..	..	..
41	313 & 513	Forest	38	557	21	1	28	30	455	..	2222	..	..	..	..	..	..	..
42	314	Community Development (Total)	15	1062	..	1	2	94	409	4	3591	..	..	..	..	..	..	..
		Community Development Project	15	3	..	1	..	1	11	..	52	..	..	..	..	..	..	..
		National Extension Service and Local Developmental Works	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
		Block Headquarters + Training Schemes for B.D.O's.	..	1039	..	..	..	79	386	..	3451	..	..	..	..	..	..	..
		Extension Training Centres	..	20	..	..	2	14	12	4	88	..	..	..	..	..	..	..
43	320 & 520	Industries (Total)	75	134	..	6	4	13	109	..	572	..	..	..	..	..	..	..
		Government Ceramic Concerns	16	2	..	..	..	2	10	..	60	..	..	..	..	..	..	..
		Non Pensionable Staff	4	4	..	..	..	..	20	..	20	..	..	..	..	..	..	..
		Rubber Factory	18	4	..	..	..	5	60	..	60	..	..	..	..	..	..	..
		Cycle Rim Factory	4	2	..	..	..	1	19	..	19	..	..	..	..	..	..	..
		Travancore Plywood Industries Pensionable, Non-pensionable	8	13	..	2	1	1	47	..	47	..	..	..	..	..	..	..
		Shark Liver Oil Factory and Oil Factory	7	..	..	1	..	..	32	..	32	..	..	..	..	..	..	..
		Kerala Soap Institute	12	..	..	1	..	..	40	..	40	..	..	..	..	..	..	..
		Hydrogenation Factory	6	..	..	1	..	..	40	..	40	..	..	..	..	..	..	..
		Industries Department	..	108	..	..	..	2	246	..	246	..	..	..	..	..	..	..
		Government Schools of Commerce	..	1	..	..	..	..	8	..	8	..	..	..	..	..	..	..
44	321	Village and Small Industries (Total)	..	190	..	28	22	19	1008	54	1008	..	..	..	..	..	..	..
		Industrial School and others	..	42	..	13	6	4	149	..	149	..	..	..	..	..	..	..
		Handloom Industry, Handicrafts and Industrial Estt.	..	59	..	6	1	..	327	..	327	..	..	..	..	..	..	..
		Khadi Schemes	..	5	..	..	..	..	15	..	15	..	..	..	..	..	..	..
		Small Industries	..	68	..	9	..	15	414	..	414	..	..	..	..	..	..	..
		Coir Development	..	16	..	..	..	..	103	..	103	..	..	..	..	..	..	..
45	328	Mines, Minerals and Geology (Scientific Departments Geological Departments)	..	16	..	2	..	..	26	..	26	..	..	..	..	..	..	..
		Irrigation	..	568	..	1	10	165	2457	..	2457	..	..	..	..	..	..	..
46	333 & 533	Ports, Light house and Shipping	..	33	..	3	14	30	185	..	185	..	..	..	..	..	..	..
47	335 & 535	Road and Water Transport	..	59	..	97	..	12	256	..	256	..	..	..	..	..	..	..
48	338	Tourism	54	38	..	26	..	50	389	..	389	..	..	..	..	..	..	..
49	339	Grant total	730	2936	11485	52045	3980	937	6359	13349	6422	129025	..	..	..	..	..	..

Gradewise Statement of employment in different Departments of the Government of Kerala—1970-71

Head of account	Name of department	4000	3500	2500—2750	2000—2500	2000—2250	Above 1700	1300—1700	1100—1300	1000—1300	900—1800	900—1200	800—1100
		(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
211	State Legislature	..	..	..	..	..	..	1	..	..	..	1	1
212	Secretariat staff of the Governor	..	..	..	..	..	..	..	..	..	..	..	1
214	Administration of Justice	1	14	..	..	..	12	19	1	..	..	..	..
215	Election	..	..	..	..	..	..	..	..	..	..	..	..
229 & 235	Land Revenue and Survey	..	..	..	..	..	..	..	..	..	..	..	..
230	Stamps and Registration	..	..	..	..	..	..	..	..	..	..	..	..
239	Excise	..	..	..	..	..	..	..	..	..	..	..	..
240 & 245	Agricultural Income tax and Sales tax	..	..	..	..	..	..	..	..	..	..	..	..
241	Taxes on vehicles	..	..	..	..	..	..	..	..	..	..	..	..
247	National Savings Directorate	..	..	..	..	..	..	..	..	..	..	..	..
253	District Administration and Miscellaneous	..	..	..	..	..	..	..	..	..	..	..	..
295	Administration of the Madras H. R. and C. E. Act	..	..	..	..	..	..	..	..	..	..	..	..
251	P. S. C.	..	..	..	1	..	..	5	..	..	..	..	2
252	Vigilance Commission	..	..	..	..	..	..	..	..	..	..	..	..
	Law Department	..	..	..	..	..	..	2	..	..	..	..	..
	State Language Commission	..	..	..	..	..	3	..	..	..	..	..	..
	Finance Department	..	..	..	..	..	..	..	..	..	..	..	..
	Board of Revenue	..	..	4	..	..	..	..	..	..	..	..	..
	Training School for giving pre-entry Training to clerk	..	..	..	..	..	..	..	..	..	..	..	..
	Finance wing of Board of Revenue	..	..	..	..	..	..	..	..	..	..	..	..
	Committee for review of reservation rules in Public Service	..	..	..	..	..	..	..	..	..	..	..	..
	Personal staff of Ministers	..	..	..	..	..	..	..	..	..	..	..	..
	Government Secretariat (attached offices)	..	2	3	3	..	..	..	..	..	..	..	..
	Liaison Officers and Staff	..	..	..	..	..	..	..	..	..	..	..	..
296	Planning Board	..	..	..	..	..	..	..	..	..	..	..	..
254	Treasury and Accounts Directorate of Treasury	..	..	..	..	..	..	..	..	..	..	..	..
	Local Fund Audit	..	..	..	..	..	..	..	..	..	..	..	..
	Kerala University Audit	..	..	..	..	..	..	..	..	..	..	..	..
	District Treasury Establishment	..	..	..	..	..	..	..	..	..	..	..	..
	Sub Treasury	..	..	..	..	..	..	..	..	..	..	..	..
	Calicut University Audit	..	..	..	..	..	..	..	..	..	..	..	..
	Police	..	..	..	..	..	..	..	..	..	..	..	..

281	Family Planning	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
282 & 482	P. H. and P. H. E. D. (Total)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
282	Public Health	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
482	Public Health Engineering	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
283	Rural Development	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
	Village Housing Project	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
284	Directorate of Municipalities	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
285	Public Relations	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..
287	Labour and Employment	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	1	..
288	Social Welfare, including Harijan Welfare (Total)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
	State Government Insurance department	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	State Supply Scheme	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
	State S. S. and A. Board	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	District S. S. and A. Board	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Harijan Welfare	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
298	Co-operation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
304	Other General Economic Services (B. E. S.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	Adoption of Metric System non-plan	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
305, 505, 306, 307 and 308	Agriculture	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
310	Animal Husbandry	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
311	Diary Development	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
312	Fisheries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Fishery School	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
313	Forest	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
	(I. F. S.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
314	Community Development	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
320, 520, 321 & 521	Industries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
328	Geological Department	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
333 & 533	Irrigation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
335 & 535	Ports	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
338	Road and Water Transport	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
339	Tourism	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Grand Total	1	16	9	4	1	22	10	33	82	71	67	68									

APPENDIX II B—(Contd.)

Head of Account	Name of departments	600—1000	700—1000	600—1000	600—900	550—900	515—900	400—900	375—800	350—600	325—725	310—600	280—525
(1)	(2)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
283	Rural Development	..	..	..	4	..	..	..	11	..	..	5	..
	Village Housing Project	..	..	..	1	..	..	..	..	..	..	..	4
284	Directorate of Municipalities	..	2	..	..	6	..	..	7	..	..	1	22
285	Public Relations	..	..	..	..	1	..	..	1	..	15	3	1
287	Labour and Employment	..	1	1	13	5	..	13	18	..	27	21	28
288	Social Welfare including Harijan Welfare (Total)	..	2	..	2	5	..	12	10	..	2	87	2
	State Government Insurance department	..	1	..	..	..	..	..	2	..	..	3	..
	Grain Supply Scheme	..	..	..	1	2	..	12	..	..	..	69	..
	State S. S. and A. Board	..	..	..	1	..	..	..	..	..	..	..	..
	District S. S. and A. Board	..	..	..	..	..	..	..	6	..	..	..	..
	Harijan Welfare	..	1	..	..	3	..	..	2	..	2	15	2
298	Co-operation	..	4	..	..	1	..	..	28	..	..	104	..
304	Other General Economic Services (B. E. S.)	..	..	..	3	1	..	..	13	..	48	9	..
	Adoption of Metric System non-plan	..	..	..	..	..	..	..	1	..	..	10	..
305, 505, 306, 307 and 308	Agriculture	..	21	2	41	2	15	4	141	..	54	12	16
310	Animal Husbandry	..	11	..	25	2	..	..	59	..	39	9	5
311	Diary Development	..	..	..	1	..	..	..	3	..	8	..	4
312	Fisheries	..	1	..	5	1	..	..	13	3	..	12	4
	Fishery School	..	..	..	..	..	..	..	..	6	..	..	..
313	Forest	..	1	..	..	..	..	27	4	..	..	8	12
314	Community Development	..	..	..	..	5	..	..	10	..	15	144	96
320, 520, 321 & 521	Industries	..	5	..	15	..	3	..	30	..	10	41	1
328	Geological Department	..	..	..	2	..	..	..	..	..	4	1	7
333 & 533	Irrigation	..	1	34	..	..	..	..	137	..	1	6	488
335 & 535	Ports	..	..	5	1	..	..	..	6	..	1	4	9
338	Road and Water Transport	..	..	..	..	..	..	1	2	..	..	1	..
339	Tourism	..	..	..	..	1	..	..	..	..	1	7	..
	Grand Total	88	147	166	149	489	121	425	1200	458	2883	1727	1626

Head of account	Name of department														(37)
	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)				
211	6	2	..	1	16	26	1	..	..	..	..
212	2	..	..	..	..	5	..	..	..	..	1	
214	29	39	1	65	32	61	396	..	..	..	..
215	1	..	..	..	..	7	10	..	..	..	..
229 & 235	48	46	..	2	..	448	423	..	..	..	..
230	209	1	..	..	305	..	..	..	..
239	1	..	122	..	..	..	26	..	..	..	..
240 & 245	335	..	..	4	2	445	..	..	..	..
241	9	..	95	..	..	91	..	..	..	..
247	1	..	..	..	2	..	..	..	..	..
253	1	..	..	2	128	..	12	2	16	502	..	..	..	7
295	5	2	..	12	..	..	..	..
251	2	18	..	..	1	..	80	..	..	..	..	..
252	2	..	..	..	2	1	..	..	..	..	..
..	25	..	..	..	..	31	..	..	..	..	..
..	7	..	..	..	..	1	..	..	..	..	..
..	17	..	..	..	1	70	..	..	..	..	..
..	6	4	4	2	..	70	..	..	..	..
..	
..	6	..	..	..	..	..	..	..	..	..	..	..
..	2	..	..	..	..	2	3	..	..	..	..
..	4	2	..	1	5	16	3	..	..	..	..
..	90	13	..	..	2	10	368	1	..	..	..	..
..	5	..	..	..	..	2	..	..	..	..
..	10	..	..	..	..	..	2	..	..	..	..
..	1	..	..	..	..	19	..	..	..	..
296	29	..	..	..	131	..	..	..	..	..
254	5	..	..	..	..	..
..	137	..	..	69	..	..	..	..
..	41	..	55	..	..	129	..	..	..	..
..	5	..	..	..	..	..
..	1	..	..	19	500	..	59	3	5	252	..	..	..	5
255	

282 & 482	P. H. and P. H. E. D. (Total)	7	..	191	2	488	192	1152
282	Public Health	..	..	66	..	461	37	965
482	Public Health Engineering	7	8	125	2	27	155	187
283	Rural Development	..	..	155	..	..	109	..
	Village Housing Project	..	..	1	..	..	1	10
284	Directorate of Municipalities	..	..	..	..	..	8	..
285	Public Relations	..	..	15	..	17	5	..
287	Labour and Employment	..	..	140	1	448	164	4
288	Social Welfare including Harijan Welfare (Total)	..	1	11	1	56	569	23
	State Government Insurance department	..	..	..	..	..	12	..
	Grain Supply Scheme	..	..	..	..	..	506	..
	State S. S. and A. Board	..	..	..	..	..	4	..
	District S. S. and A. Board	..	1	10	1	56	7	..
	Harijan Welfare	..	1	528	1	..	40	23
298	Co-operation	..	1	..	1	..	133	..
304	Other General Economic Services (B. E. S.)	..	..	..	..	..	132	1
	Adoption of Metric System non-plan	..	..	1	..	..	4	..
305, 505, 306, 307 and 308	Agriculture	4	447	104	2	87	316	352
310	Animal Husbandry	248	11	20	2	12	99	3
311	Diary Development	19	..	20	..	..	21	..
312	Fisheries	..	2	40	1	8	136	12
	Fishery School	..	..	..	..	212	..	..
313 & 513	Forest	171	..	36	..	13	196	32
314	Community Development	98	2	4	1	154	290	729
320, 520, 321 & 521	Industries	..	..	134	..	6	196	3
328	Geological Department	..	..	..	..	7	2	1
333 & 533	Irrigation	..	1	445	..	48	377	280
335 & 535	Ports	..	3	20	..	4	25	15
338	Road and Water Transport	..	..	3	..	2	16	13
339	Tourism	..	..	4	..	..	13	..
	Grand Total	579	94	710	1340	4061	1094	3394
					100	26328	8034	5467

APPENDIX II B—(Contd.)

Head of account	Name of department	100—	100—	100—	95—	90—	85—	80—	75—	70—	60—	Contingency and part-time	Total
		(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)			(48)
211	State Legislature	2	22	..	..	1	2	..	8	45	..	13	169
212	Secretariat Staff of the Governor	3	6	..	..	..	9	..	11	74	..	4	129
214	Administration of Justice	139	124	..	1489	777	1	17	97	2212	..	237	6008
215	Election	1	4	..	55	1	..	..	..	13	..	1	98
229 & 235	Land Revenue and Survey	12	2778	4	2504	65	29	29	35	3563	..	40	10130
230	Stamps and Registration	..	2	..	123	16	857	8	8	44	472	241	2355
239	Excise	1	..	..	452	42	1549	1	1	40	..	113	2408
240 & 245	Agricultural Income tax and Sales tax	33	..	..	803	66	..	..	1	465	..	85	2520
241	Taxes on Vehicles	1	..	..	170	16	..	..	4	68	..	10	501
247	National Savings Directorate	..	3	..	10	..	..	..	..	3	..	..	31
253	District Administration and Miscellaneous	33	36	..	1116	30	27	34	34	703	..	202	3033
295	Administration of the Madras H. R. and C. E. Act	2	..	..	37	1	..	..	..	27	..	9	101
251	P. S. C.	6	52	..	..	2	..	..	11	43	..	9	263
252 & 296	Vigilance Commission	3	3	..	..	..	..	..	2	4	..	..	18
	Law Department	6	3	..	..	2	..	..	3	26	..	..	129
	State Language Commission	4	5	..	..	2	..	..	2	5	..	1	39
	Finance Department	11	51	..	..	6	..	..	13	46	..	..	279
	Board of Revenue	4	..	..	122	1	23	9	9	37	..	..	320
	Training School for giving pre-entry training to clerk	1	..	..	..	..	..	..	..	1	..	..	3
	Finance wing of Board of Revenue	..	..	..	1	..	..	..	..	..	..	61	78
	Committee for review of reservation rules in Public service	1	..	..	2	..	..	..	..	3	..	1	16
	Personal staff of Ministers	8	11	..	4	7	..	..	11	54	..	5	156
	Government Secretariat (attached offices)	40	227	..	..	19	1	87	87	341	..	53	1490
296	Liaison Officers and Staff	..	..	..	6	..	..	..	..	6	..	..	19
254	Planning Board	7	..	..	13	1	..	..	..	6	..	..	52
	Treasury and Accounts Directorate of Treasury	1	..	..	9	..	..	..	2	7	..	1	48
	Local Fund Audit	1	118	..	..	..	6	1	1	43	2	15	381
	Kerala University Audit	..	5	..	..	..	..	..	..	2	..	..	16
	District Treasury Establishment	..	..	..	320	9	..	9	11	52	..	5	632
	Sub Treasury	..	..	..	351	..	..	..	54	113	..	1	758
	Calicut University Audit	..	5	..	..	..	..	..	1	12	..	..	16

255	Police	65	1565	1	463	5099	9321	21	522	..	30	18229
260	Fire Protection	1	49	..	28	125	308	..	5	..	..	551
256	Jails	2	68	36	22	10	477	31	48	..	27	862
258	Stationery and Printing	2	91	..	789	11	37	112	107	..	10	1679
259 & 337	P. W. D., Roads and Bridges	12	2	..	1084	93	33	51	719	..	210	4076
265	Other Administrative Services—Office of the enquiry Commissioner and Special Ju ge	1	3	..	..	3	..	1	2	..	..	12
	Gazetteer and Statistics Memoirs non-plan	1	..	..	5	..	..	..	2	..	1	12
	Registration of birth and marriage	..	..	..	164	..	..	..	1	..	..	167
	State Lotteries	2	4	..	44	33	..	10	27	..	13	137
268	Observatory, Trivandrum	..	..	..	3	..	1	..	2	..	..	6
	Rocket Landing Site	..	..	..	4	..	..	..	1	..	..	9
277	Education (Total)	26	1063	39209	3177	219	45	3125	3460	..	1626	78771
	Primary	..	..	37440	755	2	..	2367	806	..	..	53696
	Secondary	..	675	312	577	..	..	112	1055	..	602	13439
	D. P. I.	9	..	..	995	5	..	38	330	..	133	2678
	Text Book Publication	..	1	..	43	7	..	72	14	..	44	214
	University and other Colleges	..	..	..	147	51	27	169	361	..	54	1783
	Training College	..	..	..	15	4	..	9	31	..	14	132
	Directorate of Collegiate Education	1	..	..	37	..	..	1	9	..	1	87
	Engineering College	2	74	..	35	..	..	95	105	..	104	800
	Law College	..	..	..	7	1	..	4	32	..	12	73
	Basic Training Schools	..	..	26	1	11	..	33	124	..	25	470
	State Institute of Education	3	..	1	11	1	..	2	7	..	3	75
	Directorate of Technical Education	2	..	..	32	1	..	2	10	..	1	79
	Polytechnics	1	101	..	79	9	..	92	99	..	165	955
	Junior Technical Schools	..	149	3	87	2	3	106	102	..	148	1011
	Aided Schools Staff	..	351	55007	1216	5	..	3491	5417	..	624	103649
	Hindi Teachers	..	35	172	6	..	..	..	4	..	135	467
	School for Scheduled Caste and Scheduled Tribes	..	..	1185	..	..	..	14	3	..	..	1360
	Other Education	8	28	70	350	124	15	9	368	..	185	1452
278	Art and Culture	..	25	13	56	27	14	26	262	..	115	696
280	Medical (Total)	28	99	6	1419	213	49	3662	3663	..	2286	18402
	Allopathy	27	97	6	1028	206	35	3245	3277	..	1950	16330
	Ayurveda	1	2	..	376	7	13	379	352	..	329	1938
	Homeo	..	..	..	15	..	1	38	34	..	7	134
281	Family Planning	5	..	..	295	60	10	163	48	..	1790	5246
282 & 482	P. H. and P. H. E. D. (Total)	8	179	..	2680	379	170	810	1362	..	623	8980

Head of Account	Name of department													Contingency and part-time	Total
	100-280	100-210	95-190	90-190	85-175	80-150	75-130	70-115	60-100			(46)	(47)			(48)
(1)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)	(49)	(50)	(51)	
282	4	174	..	1926	202	41	771	656	..	554	..	6271			
482	4	5	..	754	177	129	39	706	..	69	..	2709			
283	1	..	..	197	15	..	2	173	..	10	..	688		
	..	..	..	2	..	..	..	2	..	1	..	22		
284	2	..	..	17	..	..	..	7	..	5	..	82		
285	2	12	..	17	22	1	6	35	..	2	..	163			
287	15	..	..	490	19	1	104	371	..	146	..	2206		
288	16	1140	51	877	72	80	53	383	..	682	..	4317			
	..	..	..	33	..	..	1	5	..	1	..	71		
	15	1140	..	523	57	..	..	154	..	..	..	2558		
	1	..	..	5	..	..	..	3	..	1	..	16		
	..	..	..	16	..	..	..	8	..	6	..	44		
	..	..	51	300	15	80	52	213	..	674	..	1628		
298	8	..	..	108	6	..	1	258	..	113	..	1646		
304	3	3	..	394	2	..	3	29	..	176	..	942			
	1	..	..	17	3	..	36	37	..	44	..	181		
305, 306, 307 and 308	28	18	..	1613	337	13	349	938	..	244	..	5234			
310	4	1002	..	257	84	84	65	406	..	643	..	3111			
311	4	..	..	67	24	6	5	43	..	29	..	269		
312	2	..	..	150	67	31	35	291	..	39	..	917		
	..	3	459	7	..	..	39	41	..	27	..	807		
313 & 314	7	42	..	903	48	1143	6	727	..	..	..	3414		
320, 321 & 322	..	53	1	1293	93	2	1	404	..	..	..	3646		
328	13	7	..	351	20	12	15	188	..	2	..	1902			
333 & 335	..	37	..	14	5	..	3	7	..	4	..	59			
338	6	37	..	2006	357	100	19	1184	..	94	..	5696			
335 & 338	2	30	..	52	42	9	32	119	..	6	..	402			
339	..	..	..	46	313	45	..	271	..	..	..	715		
	1	16	..	47	31	2	28	333	..	33	..	521			
Grand Total	588	8966	39780	29298	9381	14512	9221	24526	..	..	..	206372		

Gradewise statement of Employment in different Departments of the Government of Kerala 1974-75

Head of Account	Name of Department	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
		4000	3500	2500	2000	2500	2000	Above 1700	1300	1100	1000	900	1200	800	1000	700	1000
211	State Legislature	..	..	..	..	..	..	..	1	..	1	..	2	..	..	1
212	Governors Secretariat	..	..	..	..	..	..	..	..	..	1	..	..	..	2	1
214	Administration of Justice	1	14	..	..	..	12	1	33	..	..	..	10	..	35	..
215	Election	..	..	..	..	..	..	..	..	..	(I.A.S.)	..	..	..	..	..
229-235	Land Revenue and Survey	..	..	2	..	..	..	..	..	..	..	..	1	..	..	..
230	Stamps and Registration	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
239	Excise	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
240, 245	Agriculture Income-tax, sales-tax and other taxes	..	..	..	..	..	..	1	1	2	..	11	..	..	..	7
241	Taxes on vehicle:	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..
		..	..	..	..	..	(I.P.S.)	..	..	..	..	..	..	..	..	..
247	National savings organisation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
253	District Administration and Miscellaneous	..	..	..	..	..	..	..	..	..	11	..	..	..	..	7
295	Administration of the Madras H. R. and C. E. Act	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..
251	P. S. C.	..	..	..	..	..	1	..	6	..	..	1	3	..	..	..
252, 276, 296	Total	..	1	10	..	1	11	6	6	..	30	19	37	..	1	4
252	Secretariat	..	1	2	..	..	4	..	..	..	11	..	9	..	..	..
	Staff of Chief Ministers and other Ministers	..	..	..	..	..	..	..	..	..	4	4	5	..	..	..
	Finance department	..	..	..	..	1	..	1	..	..	1	3	5	..	..	3
		..	..	..	..	..	..	..	..	..	(I.F.S.)	..	..	..	..	..
	Law department	..	..	..	..	..	..	..	3	..	..	2	5	..	1	..
	Board of Revenue	..	..	4	..	..	..	..	..	..	2	2	..	..	..	..
	Committee for the revision of service rules	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Office of the arbitrator for P. W. D. and P. H. E. D.	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..
	State Language Commission	..	..	..	..	..	..	3	..	..	..	1	..	..	..	..
	Vigilance advisor to forest and taxes department	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
270	Secretariat social and Community Service	..	..	..	..	..	3	..	..	..	5	2	5	..	..	..
256	State Planning Board	..	..	..	..	..	1	1	2	..	..	1	..	..	..	..
	Project cell	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..
	Evaluation unit	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
	Secretariat economic services	..	..	4	..	..	2	..	..	..	7	4	7	..	..	..

APPENDIX II C—(Contd.)

Head of Account	Name of Department	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
(1)	(2)	4000	3500	2500	2000	2500	1700	1300	1100	1000	900	1200	800	1000	700	1000
254	Treasury and accounts	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..
255	Police	..	..	6 (I.P.S.)	..	..	2 (I.P.S.)	..	..	29(+1 I.P.S.)	..	..	..	..	10	2
260	Fire protection	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
256	Jails	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
258	Stationery and Printing	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..
259	P. W. D.	..	..	..	..	..	..	2	..	12	..	..	3	..	..	55
265	Other administrative service-state lotteries	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other services	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..
268	Pension and Miscellaneous	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
277	Education (Total)	..	..	..	..	..	2	2	1	3	1	18	28	..	79	41
	Primary	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Secondary	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..
	Directorate of Public Instruction	..	..	..	..	..	..	..	..	1	1	..	2	..	..	1
	Text Book Publication	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	University and Other Colleges	..	..	..	..	..	..	..	..	..	..	..	14	..	52	..
	Training College	..	..	..	..	..	..	1	..	..	..	..	4	..	..	..
	Directorate of Collegiate Education	..	..	..	..	..	..	..	..	2	..	..	4	..	..	..
	Engineering College	..	..	..	..	..	..	..	1	..	..	17	..	..	5	40
	Law College	..	..	..	..	..	..	..	..	..	..	..	3	..	5	..
	Basic Training Schools and Institutions	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	State Institute of Education	..	..	..	..	..	..	1	..	..	..	..	1	..	2	..
	Directorate of Technical Education	..	..	..	..	..	..	..	..	..	..	..	..	..	11	..
	Polytechnic	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Junior Technical Schools	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Hindi Teachers	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	Other Education	..	..	..	..	..	1	..	..	..	..	1	..	..	4	..
278	Art and Culture	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
280	Medical (Total)	..	..	..	..	..	..	1	..	4	..	63	5	87	5	33
	Allopathy	..	..	..	..	..	..	1	..	4	..	63	4	87	3	33
	Ayurveda	..	..	..	..	..	..	..	..	..	..	..	1	..	2	..
	Homeo	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
281	Family planning	..	..	..	..	..	..	..	..	1	..	..	1	3	..	19

APPENDIX II—C—(Contd.)

Head of Account	Name of Department	Fiscal Year																
		(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	
211	State Legislature	..	7	..	1	..	2	14	13	..	..	..	13	5	1	..	..
212	Governors Secretariat	..	2	..	..	..	..	5	1	..	..	..	3	1	..	..	..
214	Administration of Justice	..	..	94	..	..	63	49	48	..	..	..	51	100	..	..	139
215	Election	..	1	..	..	..	..	2	1	..	..	..	2	..	..	..	..
229—235	Land revenue and Survey	..	..	1	7	18	..	98	31	..	4	..	60	101	..	..	3
230	Stamps and Registration	..	..	..	4	10	..	68	..	..	..	..	..	37	199	90	..
239	Excise	..	12	..	..	..	..	51	..	..	..	..	..	..	152	..	..
240, 245	Agriculture Income-tax—Sales tax and other taxes	..	48	..	..	5	..	304	17	..	..	..	2	301	..	..	91
241	Taxes on vehicles	..	..	..	12	..	9	18	..	..	..	..	..	19	..	..	99
253	National savings organisation	..	1	..	..	..	..	6	6	..	..	..	..	1	..	..	..
295	District Administration and Miscellaneous	..	26	..	14	11	..	95	1	..	..	..	4	231	..	..	35
251	Administration of the Madras H. R. and C. E. Act	2	..	..	..	4	..	1	1	..	..	..	..	1	..	..	4
252, 276, 296	P. S. C.	..	21	..	..	..	..	51	5	..	..	..	60	15	..	..	1
252	Total	38	75	..	7	16	16	228	52	..	2	1	345	32	4	8	..	
	Secretariat	34	..	..	..	..	..	85	17	..	..	..	124	..	..	..	..
	Staff of Chief Ministers and other Ministers	1	9	..	3	..	2	8	4	..	1	..	12	2	..	..	2
	Finance department	..	15	..	..	5	..	44	10	..	1	..	45	..	..	..	..
	Law department	..	10	..	..	..	..	18	5	..	..	..	29	7	..	..	..
	Board of Revenue	1	1	..	4	1	1	16	1	..	..	..	..	10	4	..	4
	Committee for the revision of service rules	..	1	..	..	..	..	1	..	..	..	..	2	..	..	..	..
	Office of the Arbitrator for P. W. D. and P. H. E. D.	..	..	..	..	1	..	1	1	..	..	..	1	..	..	..	..
	State Language Commission	..	5	..	..	..	..	3	..	..	..	..	7	..	..	..	..
	Vigilance advisor to forest and taxes department	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
276	Secretariate social and Community Service	..	18	..	..	..	..	..	7	..	..	..	57	..	..	..	..
296	State Planning Board	1	..	..	..	6	10	..	..	..	..	..	..	10	..	..	..
	Project cell	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	..
	Evaluation unit	1	..	..	..	1	3	..	..	..	..	..	..	2	..	..	..
	Secretariat economic services	..	15	..	..	..	..	52	7	..	..	..	68	..	..	..	..

APPENDIX II C—(Contd.)

Head of Account	Name of Department	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)
282	Public Health (Total)	1	3	..	11	99	2	94	29	219	24	1	22	47	182	..	267
	Public Health and Sanitation	..	..	..	2	6	1	22	19	..	24	1	..	4	135	..	28
	Public Health Laboratories	1	1	..	9	..	..	72	1	..	..	..	..	42	15	..	2
283	Public Health Engineering Department	..	2	..	..	93	1	..	9	219	..	..	22	1	32	..	237
284	Housing	1	..	..	..	..	..	2	1	4	..	..	..	..	3	..	1
284	Urban Development	..	7	..	..	17	..	2	3	46	..	..	..	..	14	..	19
285	Information and Publicity (Public Relation)	..	2	..	..	..	..	22	4	1	..	..	..	15	..	..	15
287	Labour and Employment (Total)	18	8	..	15	17	..	40	33	4	..	..	70	10	88	..	347
	Labour and Employment	10	..	..	15	4	..	10	25	3	..	..	..	10	22	..	88
	Employment and Training	1	3	..	..	1	..	1	1	1	..	..	..	..	6	..	..
	Employment Exchange	7	..	..	..	12	..	25	7	..	..	..	61	..	51	..	7
	T. T. I.	..	5	..	..	..	..	..	..	..	..	..	9	..	8	..	252
288	Others	..	..	..	..	..	..	4	..	..	..	..	..	..	1	..	..
288	Social Welfare including Harijan Welfare	1	4	..	18	15	..	3	36	14	7	2	..	21	120	..	17
298	Co-operation	..	2	..	..	25	..	..	101	..	..	..	..	330	1	..	546
304	Miscellaneous other Economic Service (Total)	4	1	14	17	11	..	42	96	2	..	..	..	..	183	..	5
	B. E. S.	4	..	..	..	11	..	42	4	..	..	..	..	..	125	..	4
	Weight and Measures	..	..	..	1	..	..	..	12	..	..	..	..	..	27	..	1
	Land Ceiling	..	1	14	16	..	..	..	80	2	..	..	..	..	31	..	..
305	Agriculture	27	1	..	2	154	..	2	11	28	5	578	..	31	52	..	136
309 & 509	Food Nutrition	..	..	..	1	4	..	..	67	..	1	..	..	15	49	5	42
310	Animal Husbandry	10	..	..	..	49	..	51	7	7	267	27	..	..	17	..	23
311	Dairy Development	3	1	..	..	15	..	18	1	4	73	28	..	7	16	..	20
312	Fisheries	8	..	..	..	16	3	..	14	4	..	7	..	36	26	..	6
313 & 513	Forest	..	2	1	36	110	..	1	16	25	175	..	..	36	39	..	46
314	Community Development	4	5	..	..	29	..	..	163	148	64	154	..	34	176	..	231
320, 321, 520 & 521	Industries	19	1	2	..	57	..	25	60	9	..	..	..	194	59	8	105
328	Geological Department	1	..	2	..	..	..	4	3	8	..	..	..	..	2	..	..
333 & 533	Irrigation	..	1	..	..	215	..	2	13	650	..	55	..	..	50	..	538
335 & 535	Ports	2	..	..	..	7	..	3	5	12	..	2	..	..	10	..	22
338	Road and Water Transport	..	1	..	..	2	..	..	..	1	..	..	..	..	3	..	4
339	Tourism	..	1	..	..	1	..	1	7	..	..	..	..	2	2	..	5
	Grand Total	163	682	116	463	1526	569	3193	2393	8138	623	892	185	1495	6133	1156	5623

Head of Account	Name of Department	(34)	(35)	(36)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)
211	State Legislature	17	31	2	..	50	..	..	..	3	30	15	100	6	315
212	Governors Secretariat	..	7	..	1	8	..	..	..	10	..	14	80	1	139
214	Administration of Justice	56	80	448	..	218	..	1659	175	..	..	128	2236	223	5894
215	Election	..	7	11	..	7	..	57	..	..	..	1	14	1	105
229, 235	Land revenue and Survey	..	636	506	..	3298	..	3049	67	..	36	33	3425	341	11712
230	Stamps and Registration	..	..	421	..	2	..	879	2	..	..	8	535	251	2507
239	Excise	..	..	26	..	2	..	461	43	1583	..	..	39	112	2462
240, 245	Agriculture Income-tax and Sales-tax and other taxes	8	1	415	..	22	..	813	184	..	6	2	515	95	2851
241	Taxes on vehicles	..	..	106	..	1	..	190	21	..	1	9	51	9	547
247	National Savings Organisation	..	2	..	..	4	..	11	..	..	..	..	3	..	35
253	District Administration and miscellaneous	4	26	668	42	66	..	1141	16	..	2	93	606	112	3212
295	Administration of the Madras H R. and C. E. Act	1	..	13	..	3	..	37	1	..	..	..	28	7	104
251	P. S. C.	..	127	..	..	108	..	..	8	..	..	34	87	19	547
252, 276, 296	Total	45	526	88	..	530	..	3	111	83	23	101	645	10	3158
252	Secretariat	18	160	..	..	170	..	..	33	..	1	47	231	..	949
	Staff of Chief Ministers and other Ministers	8	35	10	..	21	..	3	2	1	..	5	123	1	266
	Finance department	3	73	2	..	72	..	..	15	..	..	10	50	..	359
	Law department	2	29	..	..	19	..	..	5	..	..	2	33	..	170
	Board of Revenue	2	..	60	..	6	..	99	2	..	22	10	24	8	284
	Committee for the revision of service rules	..	3	..	..	2	..	..	..	..	..	..	3	..	12
	Office of the arbitrator of P. W. D. and P. H. E. D.	..	1	..	..	1	..	..	..	..	..	..	2	..	9
	State Language Commission	..	1	..	..	9	..	..	2	..	..	2	5	1	39
	Vigilance Advisor to Forest and Taxes Department	..	..	..	..	1	..	..	..	..	..	..	2	..	5
276	Secretariat Social and Community Service	5	112	..	..	99	..	..	11	..	..	10	73	..	450
296	State Planning Board	..	..	2	..	5	..	..	1	..	..	2	11	..	62
	Project Cell	..	..	..	..	..	..	..	..	..	..	..	..	..	5
	Evaluation Unit	..	..	13	..	1	..	..	..	..	..	..	..	..	23
	Secretariat Economic Services	7	112	1	..	124	..	..	13	..	..	13	88	..	525

282	Public Health (Total)	1	294	296	291	396	..	3281	380	183	696	955	327	8145
	Public Health and Sanitation	..	185	71	..	362	..	1681	98	2	469	142	212	3470
	Public Health Laboratories	..	29	4	34	23	..	558	2	26	72	133	92	1119
	Public Health Engineering Department	1	80	221	257	11	..	1042	280	155	155	680	23	3556
283	Housing	1	..	18	11	..	..	52	..	..	..	6	..	101
284	Urban Development	..	..	30	42	2	..	79	4	6	3	92	1	381
285	Information and Publicity (Public Relations)	13	..	6	..	12	..	20	27	..	6	43	..	189
287	Labour and Employment (Total)	8	321	236	6	11	..	527	31	1	125	446	71	2446
	Labour and Employment	5	..	98	4	7	..	257	21	1	8	165	55	819
	Employment and Training	..	..	10	..	1	..	2	2	..	..	7	1	38
	Employment Exchange	3	..	69	..	3	..	147	8	..	5	49	..	375
	I. T. I.	..	321	59	2	..	..	110	..	..	109	220	13	1179
	Others	..	..	..	..	..	..	11	..	..	3	5	2	35
288	Social Welfare including Harijan Welfare	..	61	181	7	23	119	562	38	51	114	510	534	2470
298	Co-operation	1	..	77	..	8	..	160	6	..	1	257	32	1563
304	Miscellaneous other Economic Service (Total)	6	42	852	..	835	..	1269	17	..	49	1715	43	5211
	B. E. S.	1	1	203	..	8	..	355	2	..	5	28	..	796
	Weight and Measures	..	..	7	..	1	..	16	3	..	43	38	43	192
	Land Ceiling	5	41	642	..	826	..	898	12	..	1	1649	..	4223
	Agriculture	6	52	331	352	87	..	1995	447	20	330	728	70	5457
305	Food and Nutrition	..	4	422	..	84	..	988	51	..	1	134	..	1870
309 & 509	Animal Husbandry	2	135	95	15	943	..	236	82	4	27	947	383	3331
310	Dairy Development	..	3	293	..	23	..	166	51	..	18	71	..	811
311	Fisheries	1	14	146	6	3	..	129	50	30	55	330	41	964
312	Forest	1	158	261	34	368	..	929	52	1530	25	756	145	4673
313 & 513	Community Development	..	227	301	760	16	1	1700	100	1	28	574	10	4727
314	Industries	16	14	292	1	20	..	337	43	15	17	225	126	1655
320, 321, 520 & 521	Geological Department	..	8	5	2	..	16	..	5	..	3	10	8	73
328	Irrigation	..	48	501	422	46	..	1930	374	144	38	1168	969	7226
333 & 533	Ports	..	..	34	24	39	..	71	55	10	36	189	20	553
335 & 535	Road and Water Transport	..	..	19	..	14	..	53	344	1	47	278	..	768
338	Tourism	..	..	17	..	20	..	45	30	1	22	314	53	522
339	Grand Total	263	30627	1813	6181	11918	38437	32980	5124	22267	9201	31018	..	240826

	1	19	21	4	30	54	75	48	70	248	214	409	
277	Education (Total)											121	
	Primary										6		
	Secondary											2	
	D. P. I.											55	
	Text Book Publication											11	
	University and Other Colleges											44	
	Polytechnic											1	
	Engineering College											5	
	Basic Training Schools and Institutions											3	
	State Institute of Education											..	
	Training College											1	
	Law College											..	
	Directorate of Technical Education											..	
	Directorate of Collegiate Education											..	
	Junior Technical Schools											..	
	Other Education											..	
	Art and Culture					2						1	
278	Medical (Total)				2					109	139	2	
280	Allopathy				2					108	139	..	
	Ayurveda									1		..	
	Homeo											..	
281	Family Planning										1	14	
282	A & B Public Health									4		5	
462	Public Health Engineering											27	
283	Housing											..	
284	Urban Development											..	
285	Information and Publicity (Public Relations)										2	..	
	Labour and Employment				1							5	
287	Employment and Training						(I.A.S.)	3				..	
288	Social Welfare including Harijan Welfare										2	4	
	Co-operation											6	
288	Economic Services											4	
304	B. E. S.											1	
305 & 505	Agriculture											22	
309 & 509	Food and Nutrition											..	
310	Animal Husbandry											4	
311	Dairy Development											1	
312	Fisheries											3	
313 & 513	Forest											..	
	Community Development											1	
32, 520,	Industries											4	
321 & 521	Geological department											..	
328	Irrigation											43	
333 & 533	Ports											4	
335 & 535	Road and Water Transport											..	
338	Tourism											1	
339	Grand Total	1	19	21	4	30	54	75	48	70	248	214	409

APPENDIX II D—(Contd.)

Head of account	Name of department	750— 1250	750— 1200	710— 1200	700— 1200	600— 1200	560— 1100	535— 835	510— 995	495— 835	465— 775	445— 835	435— 835
(1)	(2)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)
211	State Legislature	1	..	8	..	1	..	..	3	26	8	..	..
212	Governor's Secretariat	..	..	2	..	..	..	..	1	5	1	..	..
214	Administration of Justice	..	..	..	95	..	24	..	70	87	91	..	..
215	Election	..	..	..	..	11	..	..	..	3	1	..	..
229 & 235	Land Revenue and Survey	..	..	1	..	10	13	..	..	68	31	..	..
230	Stamps and Registration	..	..	..	..	4	12	..	..	70	..	..	..
239	Excise	..	..	..	..	..	..	..	52	..	..	..	..
240 & 245	Agriculture Income tax, Sales tax	..	..	..	..	..	..	..	..	332	..	..	..
241	Other taxes	1	..	2	..	6	30	..	1	2	106	..	..
247	Taxes on Vehicles	..	..	..	..	13	..	..	17	30	..	..	..
247	Miscellaneous and Other Fiscal Service	..	..	..	..	..	..	..	..	12	..	..	..
253	District Administration	1	..	1	..	47	15	..	..	98	2	..	..
295	Other Social Community Service	1	..	..	..	..	4	..	..	1	1	..	..
251	P.S.C.	..	..	..	..	..	..	..	..	53	5	..	..
252	Secretariat General Service	..	..	..	..	..	..	..	..	100	21	..	..
252	Personnel staff of Chief Minister and other Ministers	1	1	8	..	2	1	..	1	21	7	..	..
276	Finance Department	..	..	17	..	..	6	..	..	42	10	..	1
296	Law Department	..	..	13	..	..	..	..	..	21	6	..	..
296	Board of Revenue	..	..	6	2	..	1	..	1	15	1	..	..
296	Attached offices	..	..	..	..	..	1	..	..	1	..	..	..
296	State Language Commission	..	..	5	..	..	..	..	..	3	..	..	..
296	Vigilance Adviser to Forest and Taxes Department	..	..	..	..	..	..	..	..	..	..	..	..
276	Data Processing Unit	..	..	..	..	..	2	..	..	..	5	..	..
296	Secretariat Social and Community Services	..	..	16	..	..	..	..	..	42	..	..	..
296	State Planning Board	..	1	..	..	..	10	1	9	..	..	1	..
296	Evaluation Unit, Monetary, Man Power Planning Unit, District Planning Machinery	4	1	..	..	..	6	..	6	..	..	..	..
296	Secretariat Economic Service	..	..	17	..	..	1	..	..	56	10	..	..
Grand total (252, 276, 296)		5	3	119	2	2	28	2	17	301	60	1	1
254	Treasury and Accounts	2	6	15	..	17	17	..	..	166	17	1	1
255 & 260	Police	..	3	..	..	121	25	..	10	316	..	..	..
256	Fire protection	1	..	..	..	3	1	..	3	11	..	..	..
256	Jails	..	..	..	..	3	..	..	3	7	..	..	..
258	Stationery and Printing	..	..	6	..	1	1	..	..	13	..	..	4
259 & 337	P. W. D.	..	..	1	..	..	228	..	1	17	590	1	41
265	Other Administrative Services	..	..	..	..	..	2	..	2	26	..	..	..
268	Miscellaneous General Service	..	..	..	..	..	..	..	..	1	..	..	..

277	Education (Total)	18	5	326	..	..	1	394	647	986	81	179	..	13
	Primary	..	..	1	..	..	..	..	560	..	10	..	..	..
	Secondary	..	..	..	..	..	..	43	32	..	28	2	..	..
	D. P. I.	5	1	5	..	..	..	1	..	..	1	..	..	..
	Text Book Publications	1	..	297	..	..	..	..	..	873	5	..	..	..
	University and Other Colleges	1	..	..	..	..	..	101	..	35	1	98	..	11
	Polytechnic	11	1	11	..	..	..	195	3	30	6	..	..	..
	Engineering College	..	..	..	..	..	..	..	31	..	..	7	..	..
	Basic Training Schools and Institutions	..	3	..	..	..	..	9	4	..	11	..	..	..
	State Institute of Education	..	..	9	..	..	..	17	..	35	..	..	..	..
	Training College	..	..	..	..	..	..	..	..	..	..	..	..	..
	Law College	..	..	1	..	..	1	2	..	2	5	..	..	..
	Directorate of Technical Education	..	..	..	..	..	..	3	..	4	12	..	..	..
	Directorate of Collegiate Education	..	..	..	..	..	..	22	..	..	..	63	..	2
	Junior Technical Schools	..	..	2	..	..	..	1	8	..	1	..	..	..
	Other Education	..	..	2	..	..	..	5	5	10	3	15	..	..
	Art and Culture	1	2	2	..	..	..	13	6	2560	86	11	7	30
278	Medical (Total)	39	..	270	..	..	205	..	..	..	..	..	..	..
280	Allopathy	38	..	233	..	..	197	6	3	2483	47	11	7	30
	Ayurveda	..	..	17	..	..	8	7	3	69	38	..	..	..
	Homeo	1	..	..	..	..	..	..	..	8	..	..	..	..
281	Family Planning	..	..	4	..	..	13	4	..	242	37	..	..	1
282	A & B Public Health	1	1	..	..	..	12	6	1	90	19	..	23	..
482	Public Health Engineering	1	..	2	..	..	..	98	..	..	8	213	1	29
283	Housing	..	..	7	..	..	..	18	..	2	3	43	..	..
284	Urban Development	..	1	..	..	..	..	..	..	..	..	..	..	..
285	Information and Publicity (Public Relations)	..	..	3	..	..	..	..	..	21	4	1	..	..
287	Labour and Employment	9	2	..	..	..	15	4	..	10	35	3	..	..
	Employment and Training	6	1	11	..	..	1	14	10	30	10	315	..	..
288	Social Welfare including Harijan Welfare	1	..	4	..	..	16	21	4	9	46	1	..	..
	Co-operation	..	..	2	..	..	..	32	..	..	166	1	..	..
304	Economic Services	..	..	1	14	..	41	1	..	..	241	1	..	..
	B. E. S.	5	..	..	..	..	1	13	..	39	16	..	..	..
305 & 505	Agriculture	21	14	2	..	..	2	212	..	5	7	183	2	10
309 & 509	Food and Nutrition	..	..	..	..	..	1	..	..	..	64	..	..	..
310	Animal Husbandry	9	7	..	..	..	..	51	..	52	6	3	337	..
311	Dairy Development	1	..	1	..	..	..	8	..	29	1	1	64	..
312	Fisheries	7	3	..	1	..	..	15	3	..	13	9	..	..
313 & 513	Forest	1	1	1	..	..	42	11	..	2	21	25	195	..
314	Community Development	4	1	..	17	..	..	30	..	..	170	148	43	1
320, 520	Industries	7	13	..	..	..	..	60	..	24	62	2	..	..
321 & 521	Geological department	3	..	..	..	..	..	3	..	9	14	..	..	..
328	Irrigation	..	..	1	..	..	..	173	..	2	12	356	36	..
333 & 533	Ports	3	..	..	..	..	..	8	..	10	13	17	..	..
335 & 535	Road and Water Transport	..	..	..	..	..	..	2	..	..	2	..	..	..
338	Tourism	..	..	2	..	..	..	1	..	1	9	..	..	..
339	Grand Total	149	63	879	130	568	1599	669	4313	2780	2660	721	131	..

277	Education (Total)	23	23	5188	250	4185	6	136	26228	1463
	Primary	..	..	414	..	3659	..	..	19404	335
	Secondary	..	..	4367	..	137	..	..	6597	14
	D. P. I.	1	..	119	..	47	4	..	..	541
	Text Book Publication	..	..	1	..	4	..	..	..	37
	University and Other Colleges	..	2	18	231	21	..	3	..	65
	Polytechnic	..	15	10	13	145	..	39	..	50
	Engineering College	..	..	7	6	26	1	31	..	28
	Basic Training Schools and Institutions	21	..	131	..	..	..	..	55	..
	State Institute of Education	..	..	16	..	1	..	..	..	7
	Training College	..	..	..	..	10	..	..	..	4
	Law College	..	..	..	..	..	..	2	..	4
	Directorate of Technical Education	..	1	4	..	4	..	..	..	31
	Directorate of Collegiate Education	..	..	25	..	2	1	..	..	56
	Junior Technical Schools	1	5	11	..	126	..	61	84	25
	Other Education	..	..	63	..	3	..	..	87	266
	Art and Culture	..	23	14	..	12	..	30	41	26
278	Medical (Total)	..	740	133	5	689	16	3900	34	428
280	Allopathy	..	75	122	5	678	16	3891	23	380
	Ayurveda	..	543	10	..	11	..	7	11	43
	Homeo	..	122	1	..	..	..	2	..	5
281	Family Planning	..	2	59	..	17	1	468	3	1085
282	Public Health	3	2	149	..	32	..	108	..	71
482	Public Health Engineering	..	38	..	..	231	..	91	8	240
283	Housing	..	1	36	..	1	..	..	..	12
284	Urban Development	..	..	16	..	20	1	..	..	34
285	Information and Publicity (Public Relations)	..	16	..	..	18	..	14	..	16
287	Labour and Employment	..	10	29	..	89	5	..	..	104
	Employment and Training	..	..	74	..	234	3	334	..	140
288	Social Welfare including Harijan Welfare	3	29	151	..	40	..	75	29	198
298	Co-operation	..	406	1	..	735	3	..	..	82
304	Economic Services	..	..	252	..	2	10	..	..	799
	B. E. S.	..	..	158	..	6	1	..	..	324
305, 505,	Agriculture	685	..	43	..	215	6	102	..	459
309 & 509	Food and Nutrition	..	15	49	5	40	..	2	1	417
310	Animal Husbandry	13	3	15	..	29	1	..	1	82
311	Dairy Development	14	7	10	..	15	..	5	..	300
312	Fisheries	2	39	41	36	6	4	6	7	150
313 & 513	Forest	..	35	39	4	112	2	105	..	297
314	Community Development	66	37	186	..	230	144	104	..	247
320, 520,	Industries	..	198	55	10	115	5	5	1	261
321 & 521	Geological Department	..	..	14	..	1	..	..	..	5
328	Irrigation	1	1	..	..	432	3	70	40	538
333 & 533	Ports	..	..	14	..	38	..	10	..	33
335 & 535	Road and Water Transport	..	..	3	..	3	..	..	4	22
338	Tourism	..	2	2	..	6	1	..	..	22
339		..	..	..	..	..	..	..	..	..
	Grand Total	812	2176	8167	1679	8668	398	7785	26405	13017
										7536

APPENDIX—II D (Contd.)

Head of account	Name of department	240— 540	240— 445	235— 395	230— 385	215— 370	210— 340	200— 285	196— 265	Contin- gency part-time	Total
(1)	(2)	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)
211	State Legislature	5	40			4	30	12	45	9	268
212	Governor's Secretariat	1	8			9	1	10	81		138
214	Administration of Justice	184	101		1845			257	2160	237	6125
215	Election	1	10		31	1		2	26	1	224
229 & 235	Land Revenue & Survey	3	3173		2525	60	36	43	3184	338	10708
230	Stamps and Registration	1			871	2		54	485	248	2514
239	Excise	3			504	45	1770		40	120	2743
240 & 245	Agriculture Income tax, Sales tax	21	2		841	190		2	564	92	3030
241	Other Taxes	3			66	8	72	1	36	12	390
247	Taxes on Vehicles	4	1		225	22	1	23	67	9	677
253	Miscellaneous and Other Fiscal Service	1	3		11				3		35
253	District Administration	45	65		1237	17		100	645	252	3542
295	Other Social Community Service	2			37	1		2	24	6	99
251	P.S.C.	89	29			4		30	89	19	564
252	Secretariat General Service	35	148			38	1	64	226		1025
	Personnel staff of Chief Minister and other Ministers	8	12		5	5		21	130	2	315
	Finance Department	13	65			15		8	61		388
	Law Department	24	13			6		5	45		230
	Board of Revenue	6	1		100	4	20	9	22	4	283
	Attached offices	1							2		9
	State Language Commission	4	5			2		2	5	1	39
	Vigilance Adviser for Forest and Taxes Department	1	1				2		2		8
276	Data Processing Unit	2			16				1		22
	Secretariat Social and Community Services	19	92			11		8	72		444
296	State Planning Board	5	1		8	1		3	11	1	74
	Evaluation Unit, Monetary, Man Power Planning Unit, District Planning Machinery	2			2						41
	Secretariat Economic Service.	20	98			17		20	95		563
	Grand total (252, 276, 296)	140	436		131	99	23	140	672	8	3441
254	Treasury and Accounts	1	149		816	35		23	321	100	2643
255 & 260	Police	80	3622		684	1647	16843	32	742	484	26636
	Fire protection	1	166		28	96	497		6		850
256	Jails	1	137		22	9	668		28		1018
258	Stationery		119		894	12	52	128	171	8	2091
259 & 337	P. W. D.	20	101		2404	171	107	166	1773	275	7818
265	Other Administrative Services	2	14		240	6		18	129	15	533
268	Miscellaneous General Service				4				1		8

277	Education (Total)	28	395	30585	2667	233	14	1599	4355	622	80833
	Primary	..	..	29982	565	1	..	759	1437	148	56715
	Secondary	..	27	479	622	6	..	63	1296	..	14177
	D. . I.	6	1	..	518	12	..	53	163	..	1590
	Text Book Publication	1	1	..	43	11	..	83	34	..	218
	University and Other Colleges	..	22	1	154	50	..	238	363	116	2537
	Polytechnic	..	117	..	84	5	..	123	177	130	1166
	Engineering College	..	77	..	35	..	..	92	111	64	805
	Basic Training Schools and Institutions	..	..	25	31	11	..	33	95	1	441
	State Institute of Education	3	..	1	7	1	..	2	8	..	74
	Training College	..	3	..	11	1	..	10	38	8	134
	Law College	3	1	..	7	1	..	6	38	27	119
	Directorate of Technical Education	4	..	..	41	2	..	3	16	2	125
	Directorate of Collegiate Education	5	..	..	127	1	..	1	27	3	273
	Junior Technical Schools	..	146	14	75	2	14	117	122	118	1009
	Other Education	5	..	83	347	129	..	16	430	5	1450
278	Art and Culture	1	47	14	51	30	23	22	262	59	710
280	Medical (Total)	27	352	6	2098	335	127	4869	6653	1655	28790
	Allopathy	27	334	6	1533	321	106	4073	6049	821	24987
	Ayurveda	..	18	..	499	14	19	675	441	798	3274
	Homeo	..	..	..	66	..	2	121	163	36	529
281	Family Planning	17	6	..	311	206	..	78	103	1472	5490
282	Public Health	4	385	..	1957	85	27	524	297	162	4039
482	Public Health Engineering	6	..	..	905	235	159	54	567	..	3157
283	Housing	..	..	..	32	..	..	..	3	1	66
284	Urban Development	1	..	..	79	5	6	7	87	2	390
285	Information and Publicity (Public Relations)	3	13	..	19	31	..	9	43	1	205
287	Labour and Employment	9	8	..	245	14	1	22	160	104	893
	Employment & Training	2	..	..	249	11	..	134	259	14	1857
288	Soical Welfare including Harjian Welfare	21	5	143	605	34	30	112	678	601	2882
298	Co-operation	4	3	..	170	5	..	28	255	17	1918
304	Economic Services	267	752	..	1400	14	..	159	1668	164	5792
	B. E. S.	3	7	41	503	5	..	48	66	49	1290
305 & 505	Agriculture	20	95	..	2824	622	89	495	1055	129	7865
309 & 509	Food and Nutrition	1	40	..	931	47	..	11	134	3	1750
310	Animal Husbandry	6	1034	..	225	90	4	..	980	575	3698
311	Dairy Development	2	21	..	123	26	1	29	55	1	715
312	Fisheries	5	545	1	150	60	31	58	638	50	1351
313 & 513	Forest	13	12	..	1142	62	1655	112	747	139	5369
314	Community Development	1	12	1	1501	189	1	28	546	171	4776
320, 520, 521	Industries	13	6	..	348	34	22	13	219	68	1548
328	Geological Department	..	..	..	22	5	..	3	8	3	91
333 & 533	Irrigation	14	50	..	1568	304	151	64	1117	264	5937
335 & 535	Ports	4	22	..	79	59	12	38	254	15	671
338	Road and Water Transport	1	20	..	55	378	1	27	255	55	829
339	Tourism	1	15	..	39	30	1	49	303	36	522
	Grand Total	1082	12009	30803	33714	5587	3460	9643	33059	243529	

APPENDIX II E

Classes and Scales of Pay of Government Employees

	1960-61	1970-71	1974-75	1977-78
Class I	900—1200	1300—1700	1300—1700	1400—1900
			1000—1400	1150—1650
	800—1000	900—1300	900—1300	1050—1550
			800—1200	950—1450
Class II	500—800	600—1000	600—1000	750—1250
	400—700	600—900	600—900	750—1200
	400—700	550—900	550—900	710—1200
			515—900	700—1200
	350—600	400—900	400—900	600—1200
	350—600	375—800	375—800	560—1100
			350—600	535—835
	150—350	325—725	325—725	510—995
	200—350	310—600	310—600	495—835
	150—250	280—525	280—525	465—775
			260—500	445—835
		250—600	250—600	435—835
Class III	150—250	250—525	250—525	435—775
	150—250	225—450	225—450	410—715
		220—370	220—370	405—660
			190—320	345—580
	125—225	175—315	175—315	330—575
		170—385	170—385	325—660
	100—200	140—290	140—290	285—550
	90—200	140—270	140—270	285—540
	80—180	130—270	130—270	275—525
	50—150	110—220	110—220	255—455
	50—200	100—280	100—280	240—540
	50—125	100—210	100—210	240—445
		95—190	95—190	235—395
	40—120	90—190	90—190	230—385
	40—100	85—175	85—175	215—370
	40—80	80—150	80—150	210—340
Class IV	35—60	75—130	75—130	200—285
	30—40	70—115	70—115	196—265

Class-wise Statement of Employment position in the Government Sector during the period 1960-61, 1970-71, 1974-75 and 1977-78

Sl. No. of Head of Account	Name of Department	1960-61					1970-71					Total	
		Class I (4)	Class II (5)	Class III (6)	Class IV (7)	Others (8)	Total (9)	Class I (10)	Class II (11)	Class III (12)	Class IV (13)		Others (14)	Total (15)
1. 211	State Legislature	2	7	62	26	17	114	3	21	87	45	13	169
2. 212	Governor's Secretariat	2	8	40	77	..	127	5+ 1 (I.A.S.)	8	37	74	4	129
3. 214	Administrative of Justice	65	245	3158	2211	14	5693	87	206	3266	2212	237	6008
4. 215	Election	1	5	14	9	..	29	1	4	79	13	1	98
5. 229, 235	Land Revenue and collection of taxes in capital	1	41	2245	1740	3746	7773	2	131	6394	3563	40	10130
6. 230	Stamps and Registration	1	60	1346	457	2	1866	1	76	1521	516	241	2355
7. 239	State Excise	..	27	1617	20	..	1664	1	60	2194	40	113	2408
8. 240, 245	Agricultural tax and other taxes and duties on Commodities and Services	5	114	923	372	..	1414	9	272	1689	465	85	2520
9. 241	Taxes on Vehicles	1	22	202	40	..	265	1	36	386	68	10	501
10. 247, 253, 295	District Administration and other Fiscal, Social and Community Services	14	205	1939	734	..	2892	10	191	2020	733	211	3165
11. 251	P. S. C.	6	27	115	38	..	186	8	33	170	43	9	263
12. 252, 276, 296	Secretariat, General, Social & Community and Economic Services	28	235	1101	471	..	1835	95	348	1506	529	121	2599
13. 254	Treasury and Accounts Administration	1	91	884	169	..	1145	2	81	1525	219	24	1851
14. 255	Police	24	143	13627	114	..	13912	33	266	17378	522	30	18229
15. 260	Fire Protection and Control	..	3	410	7	..	420	..	7	539	5	..	551
16. 256	Jails	1	20	621	60	1	703	1	21	765	48	27	862
17. 258	Stationery and Printing	1	18	1198	27	74	1318	2	21	1539	107	10	1679
18. 259, 337	P. W. D. Roads and Bridges	32	541	2016	684	..	3273	40	656	2451	719	210	4076
19. 265	Other Administrative Services	2	13	154	65	..	234	1	20	261	32	14	328
20. 268	Miscellaneous General Services	..	..	..	..	..	..	..	1	11	3	..	15
21. 277	Education	78	1879	42925	2335	893	48110	133	1916	71636	3460	1626	78771
22. 278	Art and Culture	1	28	146	227	3	405	..	32	287	262	115	696

Sl. No.	Head of Account	Name of Department	1960-61					1970-71					Total	
			Class I	Class II	Class III	Class IV	Others	Total	Class I	Class II	Class III	Class IV		Others
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
23.	280	Medical	61	984	5515	1509	1499	9668	150	1906	10397	3663	2286	18402
24.	281	Family Planning	..	15	76	5	102	198	6	307	3095	48	1790	5246
25.	282A & B 482	Public Health and P. H. E. D.	15	403	5102	1248	6	6774	41	523	6431	1362	623	8980
26.	283	Housing, Rural Development	1	19	192	99	..	311	1	25	498	175	11	710
27.	284	Urban Development	..	29	..	..	..	29	4	36	30	7	5	82
28.	285	Information and Publicity	..	14	68	44	..	126	2	21	103	35	2	163
29.	287	Labour and Employment	6	79	475	162	1	723	8	125	1556	371	146	2206
30.	288, 488	Social Security and Welfare (including Harijan Welfare)	1 (I.A.S.)	49	681	185	5	921	4+ (I.A.S.)	121	3127	383	682	4318
31.	298	Co-operation	1	137	432	216	..	786	6	134	1135	258	113	1646
32.	304	Other General Economic Services	2	115	575	35	..	727	2	85	750	66	220	1123
33.	305, 505	Agriculture	8	334	1338	508	..	2188	29	737	3286	938	244	4582
34.	306	Minor Irrigation	..	..	..	..	..	..	..	..	..	..	..	26
35.	307	Soil and Water Conservation	..	..	..	..	..	..	..	..	..	..	..	612
36.	308	Area Development	..	..	..	..	..	..	..	..	..	..	..	14
37.	309, 509	Food and Nutrition	..	..	..	..	..	..	..	..	..	..	..	5234
38.	310	Animal Husbandry	6	153	488	372	..	1019	13	398	1651	406	643	3111
39.	311	Dairy Development	..	10	36	65	18	129	..	36	161	43	29	269
40.	312	Fisheries	1	43	915	383	..	1342	2	54	1270	332	66	1724
41.	313, 513	Forest	4	139	1624	455	..	2222	20+ (I.F.S.)	222	2444	727	..	3414
42.	314	Community Development	..	545	2633	409	4	3391	..	523	2719	404	..	3646
43.	320, 520	Industries	7	260	968	291	54	572	8	100	1004	188	2	504
44.	321, 521	Village and Small Industries	..	..	..	..	..	1008	..	..	..	..	..	798
45.	328	Mines, Minerals and Geology	..	4	15	7	..	26	..	14	34	7	4	59
46.	333, 533	Irrigation, Navigation, Drainage and Flood Control	19	409	1341	683	..	2457	41	662	3715	1184	94	5696
47.	335, 535	Ports, Light house and Shipping	2	4	111	68	..	185	9	24	238	119	12	402
48.	338	Road and Water Transport	..	2	252	2	..	256	..	4	440	271	..	715
49.	339	Tourism	..	5	134	250	..	389	1	9	145	333	33	521
		Total	404	7484	97714	16984	6439	129025	785	10473	159970	24998	10146	206372

1977-78

1974-75

Sl. No.	Head of Account	Name of Department	1974-75										1977-78				
			Class I	Class II	Class III	Class IV	Others	Total	Class I	Class II	Class III	Class IV	Others	Total			
(1)	(2)	(3)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)			
1.	211	State Legislature	5	37	167	100	6	315	6	46	162	45	9	268			
2.	212	Governor's Secretariat	3+	10	44	80	1	139	4+	11	41	81	..	138			
			1 (I.A.S.)						1 (I.A.S.)								
3.	214	Administrative of Justice	106	275	3054	2236	223	5894	111	360	3249	2160	237	6125			
4.	215	Election	1	4	85	14	1	105	2	16	179	26	1	224			
5.	229, 235	Land Revenue and collection of taxes on capital	3	154	7789	3425	341	11712	2	123	7061	3184	338	10708			
6.	230	Stamps and Registration	1	82	1638	535	251	2507	1	86	1694	485	248	2514			
7.	239	State Excise	1	63	2247	39	112	2462	3	64	2516	40	120	2743			
8.	240, 245	Agricultural tax and other taxes and duties on Commodities and Services	22	374	1845	515	95	2851	23	530	2161	600	104	3420			
9.	241	Taxes on Vehicles	1+	39	446	51	9	547	5	60	536	67	9	677			
			1 (I.P.S.)														
10.	247, 253, 295	District Administration and other Fiscal, Social and Community Services	20	169	2406	637	119	3351	16	182	2548	672	258	3676			
11.	251	P. S. C.	11	77	353	87	19	547	13	80	363	89	19	564			
12.	252, 276, 296	Secretariat, General, Social & Community and Economic Services	125+	478	1899	645	10	3518	164+	536	2059	672	8	3441			
			1 (I.A.S.)						2 (I.A.S.)								
13.	254	Treasury and Accounts Administration	2	132	1778	290	89	2291	5	204	2013	321	100	2643			
14.	255	Police	41+	373	22787	812	434	24456	53+	494	84861	742	484	26636			
			9 (I.P.S.)						2 (I.P.S.)								
15.	260	Fire Protection and Control	1	10	818	5	..	834	1	14	829	6	..	850			
16.	256	Jails	2	15	758	29	12	816	2	15	964	28	9	1018			
17.	258	Stationery and Printing	2	27	1887	167	3	2086	3	24	1885	171	8	2091			
18.	259, 337	P. W. D. Roads and Bridges	72	1113	5132	1973	..	8290	55	879	4836	1773	275	7818			
19.	265	Other Administrative Services	2	29	337	46	14	428	4	31	354	129	15	533			
20.	268	Miscellaneous General Services	..	1	12	3	1	17	..	1	6	1	..	8			
21.	277	Education	175	2315	75184	4068	4090	85832	201	2655	72999	4355	623	80833			
22.	278	Art and Culture	1	38	313	300	61	713	4	43	342	262	59	710			
23.	280	Medical	198	2563	13070	4923	1784	22538	299	3188	16995	6653	1655	28790			
24.	281	Family Planning	18	301	3584	119	1779	5801	16	303	3596	103	1472	5490			

APPENDIX II F—(Contd.)

Sl. No.	Head of Account	Name of Department	1974-75					1977-78						
			Class I (16)	Class II (17)	Class III (18)	Class IV (19)	Others (20)	Total (21)	Class I (22)	Class II (23)	Class III (24)	Class IV (25)	Others (26)	Total (27)
(1)	(2)	(3)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)
25.	282A & B 482	Public Health and P. H. E. D.	44	505	6314	955	327	8145	47	503	5620	864	162	7196
26.	283	Housing, Rural Development	1	8	86	6	..	101	..	6	56	3	1	66
27.	284	Urban Development	14	75	199	92	1	381	14	74	213	87	2	390
28.	285	Information and Publicity	3	29	114	43	..	189	3	29	129	43	1	205
29.	287	Labour and Employment	11+ 2 (I.A.S.)	205	1711	446	71	2446	30+ 1 (I.A.S.)	451	1731	419	118	2750
30.	288, 488	Social Security and Welfare (including Harijan Welfare)	12	100	1314	510	534	2470	11+ 3 (I.A.S.)	104	1485	678	601	2882
31.	298	Co-operation	16	123	1130	257	32	1563	8	201	1437	255	17	1918
32.	304	Other General Economic Services	8	187	3258	1715	43	5211	15	368	4752	1734	213	7082
33.	305, 505	Agriculture	12	808	3839	728	70	4467	49	1122	5510	1055	129	5086
34.	306	Minor Irrigation	..	..	..	..	..	32	..	..	..	..	..	177
35.	307	Soil and Water Conservation	..	..	..	..	..	880	..	..	..	..	..	979
36.	308	Area Development	..	..	..	..	..	78	..	..	..	..	..	23
37.	309, 509	Food and Nutrition	2	73	1661	134	..	1870	..	65	1548	134	3	1750
38.	310	Animal Husbandry	4	418	1579	947	383	3331	16	469	1658	980	575	3698
39.	311	Diary Development	..	143	597	71	..	811	2	118	539	55	1	715
40.	312	Fisheries	3	52	538	330	41	964	12	55	596	638	50	1351
41.	313, 513	Forest	15+ 12 (I.F.S.)	266	3479	756	145	4673	16+ 12 (I.F.S.)	298	4157	747	139	5369
42.	314	Community Development	1	567	3575	574	10	4727	7	476	3576	546	171	4776
43.	320, 520	Industries	10	173	1121	225	126	559	15	160	1086	219	68	514
44.	321, 521	Village and Small Industries	..	..	..	..	..	1096	..	..	..	..	..	1034
45.	328	Mines, Minerals and Geology	1	18	41	10	3	73	3	26	51	8	3	91
46.	333, 533	Irrigation, Navigation, Drainage and Flood Control	62	936	4091	1168	969	7226	58	781	3717	1117	264	5937
47.	335, 535	Ports, Light house and Shipping	12	31	301	189	20	553	20	48	334	254	15	671
48.	338	Road and Water Transport	..	4	486	278	..	768	1	4	514	255	55	829
49.	339	Tourism	1	10	144	314	53	522	2	13	168	303	36	522
Total			1071	13415	183211	30847	12282	240826	1343	15324	191128	33059	8675	249529

Index of Growth of Government Employment in the different classes during 1960-61 to 1977-78 in Kerala State

	1960-61		1970-71		1974-75		1977-78	
	No. (2)	Percentage (3)	No. (5)	Percentage (6)	No. (8)	Percentage (9)	No. (11)	Percentage (12)
(1)	(4)	(7)	(10)	(13)				
Class I	404	0.31	785	0.38	1071	0.44	1343	0.54
Class II	7484	5.80	10473	5.07	13415	5.57	15324	6.14
Class III	97714	75.73	159970	77.52	183211	76.08	191128	76.60
Class IV	16984	13.16	24998	12.11	30847	12.81	33059	13.25
Others	6439	5.00	10146	4.92	12282	5.10	8675	3.47
State	129025	100.00	206372	100.00	240826	100.00	249529	100.00
					160	187		193

APPENDIX III A

Growth of Employment in the Government Sector

Sl. No.	Head of Account	Name of Establishment	1960-61		1970-71		1974-75		1977-78	
			(4)	(5)	(6)	(7)	(8)	(9)	(10)	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
1.	211	State Legislature	114	169	48.25	315	86.39	268	14.92	
2.	212	Governor's Secretariat	127	129	1.57	139	7.75	138	0.72	
3.	214	Administration of Justice	5693	6008	5.53	5894	1.90	6125	3.92	
4.	215	Election	29	98	237.93	105	7.14	224	113.33	
5.	229,	Land Revenue and collection of taxes	7773	10130	30.32	11712	15.62	10708	8.57	
6.	230	in Capital and Survey	1866	2355	26.21	2507	6.45	2514	0.28	
7.	239	Stamps and Registration	1664	2408	44.71	2462	2.24	2743	11.41	
8.	240,	State Excise	1414	2520	78.22	2851	13.13	3420	19.96	
	245	Agricultural income tax and (other taxes and duties on commodities and services)								
9.	241	Sales tax	265	501	89.06	547	9.18	677	23.77	
10.	247,	Taxes on Vehicles	2892	3165	9.44	3351	5.88	3676	9.70	
	253,	District Administration and other fiscal social and community services								
11.	251	P. S. C.	186	263	41.40	547	107.98	564	3.11	
12.	252,	Secretariat general social and community and Economic Service	1835	2599	41.63	3158	21.51	3441	8.96	
	276,									
13.	296	Treasury and Accounts Administration	1145	1651	61.66	2291	23.77	2643	15.36	
14.	255	Police	13912	18229	31.03	24456	34.16	26636	8.91	
15.	260	Fire Protection and Control	420	551	31.19	834	51.36	850	1.92	
16.	256	Jails	703	862	22.62	816	5.34	1018	24.75	

APPENDIX III A—(Contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
17.	258	Stationery and Printing	1318	1679	27.39	2086	24.24	2091	0.24
18.	259, 337	P. W. D. and Roads and Bridges	3273	4076	24.53	8290	103.39	7818	5.69
19.	265 & 268	Other Administrative Services and Miscellaneous General Service	234	343	46.58	445	29.74	541	21.57
20.	277	Education	48110	78771	63.73	85832	8.96	80833	5.82
21.	278	Art and Culture	405	696	71.85	713	2.44	710	0.42
22.	280	Medical	9668	18402	90.34	22538	22.48	28790	27.74
23.	281	Family Planning	198	5246	2549.49	5801	10.58	5490	5.36
24.	282A & B 482	Public health and P.H.E.D.	6774	8980	32.57	8145	9.30	7196	-11.65
26.	283	Housing, Rural Development	311	710	128.30	101	85.77	66	-34.65
27.	284	Urban Development	29	82	182.76	381	364.63	390	2.36
28.	285	Information and Publicity	126	163	29.37	189	15.95	205	8.47
29.	287	Labour and Employment	723	2206	205.12	2446	10.88	2750	12.43
30.	288, 488	Social Security and Welfare (Including Harijan Welfare)	921	4317	368.73	2470	42.78	2882	16.68
31.	298	Co-operation	786	1646	109.41	1563	5.04	1918	22.71
32.	304	Other General Economic Services	727	1123	54.47	5211	364.02	7082	35.90
33.	305, 505	Agriculture	2066	4582	121.78	4467	-2.51	5086	13.85
34.	306	Minor Irrigation	..	26	100.00	32	23.08	1777	5453.43
35.	307	Soil and Water Conservation	122	612	401.64	880	43.79	979	11.25
36.	308	Area Development	..	14	100.00	78	457.14	23	-70.51
37.	309, 509	Food and Nutrition	..	..	..	1870	100.00	1750	-6.42
38.	310	Animal Husbandry	1019	3111	205.30	3331	7.07	3698	11.02
39.	311	Dairy Development	129	269	108.53	811	201.49	715	-11.84
40.	312	Fisheries	1342	1724	28.46	964	-44.08	1351	40.15
41.	313, 513	Forest	2222	3414	53.65	4673	36.88	5369	14.89
42.	314	Community Development	3591	3646	1.53	4727	29.65	4776	1.04
43.	320, 520	Industries	572	504	-11.89	559	10.91	514	-8.05
44.	321, 521	Village and Small Industries	1008	798	-20.36	1096	37.34	1034	-5.66
45.	328	Mines, Minerals and Geology	26	59	126.92	73	23.73	91	24.66
46.	333, 533	Irrigation, Navigation, Drainage and Flood Control	2457	5696	131.83	7226	26.86	5937	-17.84
47.	335, 535	Ports, Light house and Shipping	185	402	117.30	553	37.56	671	21.34
48.	338	Road and Water Transport	256	715	179.30	768	7.41	829	7.94
49.	339	Tourism	389	521	33.93	522	0.19	522	..
		Total	129025	206371	59.95	240826	16.70	249529	3.61

APPENDIX III B

Index of Employment in the State Government during the period 1960-61 to 1977-78

Sl. No.	Head of Account	Name of departments	Year			
			1960-61	1970-71	1974-75	1977-78
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1.	211	State Legislature	100	148	276	235
2.	212	Governor's Secretariat	100	102	109	109
3.	214	Administration of Justice	100	106	104	108
4.	215	Election	100	338	362	772
5.	235, 229	Land Revenue and Collection of taxes on capital	100	130	151	138
6.	230	Stamps and Registration	100	126	134	135
7.	239	State Excise	100	145	148	165
8.	240, 245	Agricultural tax and other taxes and duties on commodities and Services	100	178	202	242
9.	241	Taxes on Vehicles	100	189	206	255
10.	247 253, 295	District Administration and other fiscal social and community services	100	109	116	127
11.	251	P. S. C.	100	141	294	303
12.	252, 276, 296	Secretariat general social and community and Economic Services	100	142	172	188
13.	254	Treasury and Accounts Administration	100	162	200	231
14.	255	Police	100	131	176	191
15.	260	Fire Protection and control	100	131	199	202
16.	256	Jails	100	123	116	145
17.	258	Stationery and Printing	100	127	158	159
18.	259, 337	P. W. D. and Roads and Bridges	100	125	253	239
19.	265 &	Other Administrative Services	100	147	190	231
20.	268					
21.	277	Education	100	164	178	168
22.	278	Art and Culture	100	172	176	175
23.	280	Medical	100	190	233	298
24.	281	Family Planning	100	2649	2930	2773
25.	282A & B, 482	Public Health and P. H. E. D	100	133	120	106
26.	283	Housing, Rural Development	100	228	32	21
27.	284	Urban Development	100	283	1314	1345
28.	285	Information and Publicity	100	129	150	163
29.	287	Labour and Employment	100	305	338	380
30.	288, 488	Social Security and Welfare (Including Harijan Welfare)	100	469	268	313
31.	298	Co-operation	100	209	199	244
32.	304	Other General Economic Services	100	154	717	974
33.	305, 505	Agriculture	100	222	216	246
34.	306	Minor Irrigation	..	100	123	6835
35.	307	Soil and Water Conservation	100	502	721	802
36.	308	Area Development	..	100	557	164
37.	309, 509	Food and Nutrition	..	..	100	94
38.	310	Animal Husbandry	100	305	327	363
39.	311	Dairy Development	100	209	629	554
40.	312	Fisheries	100	128	72	101
41.	313, 513	Forest	100	154	210	242
42.	314	Community Development	100	192	131	133
43.	320, 520	Industries	100	88	98	90
44.	321, 521	Village and Small Industries	100	79	109	103
45.	328	Mines, Minerals and Geology	100	227	281	350
46.	333, 533	Irrigation, Navigation, Drainage and Flood control	100	232	294	242
47.	335, 535	Ports, Light house and Shipping	100	217	299	363
48.	338	Road and Water Transport	100	279	300	324
49.	339	Tourism	100	134	134	134
Kerala State			100	160	187	193

UNITED STATES DEPARTMENT OF THE ARMY, WASHINGTON, D. C.

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**HAND BOOK
OF
TECHNICAL INSTITUTIONS
1981**

N. SIVADASAN

2. Number of Technical Institutions in various States and Union Territories in India

(1)	No. of Technical Institutions		
	Engineering Colleges	Polytechnics	Women's Polytechnics
(1)	(2)	(3)	(4)
1. Andhra Pradesh	11	19	3
2. Assam	3	6	1
3. Bihar	7	14	1
4. Gujarat	8	20	2
5. Haryana	2	8	1
6. Himachal Pradesh	..	..	..
7. Jammu-Kashmir	1	2	..
8. Karnataka	14	25	3
9. Kerala	6	17	3
10. Madhya Pradesh	10	22	1
11. Maharashtra	16	32	1
12. Manipur	..	1	..
13. Meghalaya	..	1	..
14. Nagaland	..	1	..
15. Orissa	2	5	1
16. Punjab	2	12	1
17. Rajasthan	5	6	..
18. Tamil Nadu	14	38	3
19. Tripura	1	1	..
20. Uttar Pradesh	13	42	3
21. West Bengal	12	26	1
22. Delhi	5	5	1
23. Goa	2	2	..
24. Pondicherry	..	1	..
25. Chandigarh	4	1	1

Source : Hand Book of Technical Institutions, Tamil Nadu—1980.

Note.—Number of Institutions in the State other than Kerala is not up-to-date.

PART II

FACILITIES FOR TECHNICAL EDUCATION IN SOUTHERN REGION—1979

A. Abstract—Degree Courses (Excluding Para Medical Courses)

State	Post-graduate Course				Under-graduate Course			
	No. of Institution	Intake	Actual admission	Out-turn	No. of Institution	Intake	Actual admission	Out-turn
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Andhra Pradesh	8	258	286	116	11	2127	2106	1528
2. Karnataka	4	294	235	191	21	6651	6600	2274
3. Kerala	3	112	110	55	7	1242	983	871
4. Tamil Nadu	12	783	716	462	15	3394	3450	2195

A1.—Abstract—Diploma Courses (Excluding Para Medical Courses 1979)

State	Diploma courses in Polytechnics				Diploma courses in Women's Polytechnics			
	No. of Institutions	Intake	Actual Admission	Out-turn	No. of Institutions	Intake	Actual Admission	Out-turn*
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Andhra Pradesh	23	3332	3429	2099	4	620	637	380
2. Karnataka	26	3953	4014	2206	3	421	399	201
3. Kerala	15	2290	2194	1241	3	301	296	183
4. Tamil Nadu	33	5206	5281	3527	3	470	484	266
5. Pondicherry	1	140	140	72	..	..	..	..

Source : Survey of the Facilities for Technical Education in Southern Region—1979.

*Out-turn.—Between September 1977 to August 1978.

B. Statement of subject-wise summary of facilities available for Post-Graduate Students in Technical Courses in Southern Region (Excluding Para Medical Courses such as M. Pharm.)—1979

Subject	Andhra Pradesh		Karnataka		Kerala		Tamil Nadu		Total Out-turn S. Region
	Intake	Actual Admission	Intake	Actual Admission	Intake	Actual Admission	Intake	Actual Admission	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Civil	95	56	42	29	34	32	182	161	160
2. Mechanical	93	69	54	41	31	31	164	170	177
3. Electrical	110	101	26	17	31	31	175	158	201
4. Electronics	24	24	16	17	10	10	18	10	44
5. Chemical Engineering	14	13	28	20	6	6	74	69	69
6. Chemical Technology	12	13	..	..	..	..	..	..	3
7. Metallurgy	..	..	26	17	..	..	30	26	20
8. Textile	..	..	10	7	..	..	15	12	7
9. Aeronautics	..	..	26	23	..	..	19	18	29
10. Leather	..	..	..	..	..	..	5	2	3
11. Town and Country Planning	..	..	..	..	..	..	20	16	8
12. Automobile	..	..	..	..	..	..	6	2	..
13. Instrument Technology	..	..	..	..	..	..	8	5	..
14. Applied Mechanics	..	..	..	..	..	..	15	8	11
15. Computer Science Technology	..	..	..	..	..	..	30	37	20
16. Industrial Engineering	10	1	..	..	..	..	17	16	10
17. Ocean Engineering	..	..	..	..	..	..	6	6	..
18. High Voltage Engineering	..	..	8	7	..	..	..	..	..
19. Automation	..	..	18	24	..	..	..	..	16
20. Physical Engineering	..	..	10	8	..	..	..	..	12
21. Industrial Oriented Courses (Marine structures, Industrial structures and Industrial Electronics)	..	..	30	25	..	..	..	..	22
Total	258	256	294	235	112	110	783	716	812

B1. Statement of Subject-wise summary of facilities available for under-graduate students (Degree Courses) in Southern Region (Excluding Para Medical Courses such as B. Pharm., etc. 1979)

Subject	Andhra Pradesh		Karnataka		Kerala		Tamil Nadu		Total out-turn
	Intake	Actual Admission	Intake	Actual Admission	Intake	Actual Admission	Intake	Actual Admission	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Civil	569	566	1824	1831	355	293	775	801	1728
2. Mechanical	470	470	1842	1863	360	314	816	819	2111
3. Electrical	443	439	1364	1347	350	292	737	767	1265
4. Electronics and Tele-Communication	335	335	974	932	76	30	295	294	797
5. Chemical	180	180	160	163	41	39	206	210	428
6. Mining	25	25	..	..	..	..	..	..	25
7. Metallurgy	30	29	50	52	..	..	116	114	101
8. Architecture	30	30	75	71	15	..	20	20	102
9. Textile	..	..	30	30	..	..	20	66	89
10. Leather	..	..	..	..	..	..	20	23	17
11. Aeronautical	..	..	..	..	..	..	32	32	32
12. Automobile	..	..	..	..	..	..	36	41	36
13. Production Engineering	..	..	..	..	15	15	119	116	33

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
14. Instrumentation Technology	..	..	80	80	..	..	..	40	45	39
15. Industrial Engineering	..	..	152	144	..	..	..	20	20	19
16. Naval Architecture	..	..	..	..	..	..	..	12	12	..
17. Applied Arts	45	32	30	30	..	..	..	..	..	21
18. Fine Arts	..	..	..	..	..	30	..	70	70	35
19. Transportation Engineering	..	..	65	57	..	..	..	..	..	..
Total		2137	2106	6651	6600	1248	983	3394	3450	6926

B2. Statement of subject-wise summary of facilities available for Diploma Courses in Southern Region 1979

Subject	Andhra Pradesh		Karnataka		Kerala		Tamilnadu		Pondicherry		Total out-turn S. Region
	Intake	Actual Admn.	Intake	Actual Admn.	Intake	Actual Admn.	Intake	Actual Admn.	Intake	Actual Admn.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Civil	916	967	1012	1026	672	651	1379	1388	30	30	2326
2. Mechanical	841	860	991	1003	697	694	1713	1695	30	30	3149
3. Electrical	878	895	990	1000	646	581	1324	1424	30	30	2236
4. Electronics and Telecommunication	102	105	100	100	80	80	55	55	30	30	218
5. Chemical	30	30	30	27	30	28	60	61	..	..	78
6. Metallurgy	45	48	65	65	..	..	..	..	..	..	72
7. Mining	76	75	60	83	..	..	..	..	..	..	53
8. Automobile	100	101	225	229	30	27	..	..	..	..	201
9. Textile	33	33	37	37	61	61	159	150	..	..	176
10. Ceramics	30	30	20	20	..	..	..	..	..	..	..
11. Secretarial and Commercial Practice	225	225	268	270	24	22	260	159	20	20	239
12. Sugar Technology	36	35	..	..	..	..	10	10	..	..	4
13. Photography	20	25	..	..	..	..	..	..	..	..	27
14. Polymer Technology	..	..	20	19	10	10	20	20	..	..	8
15. Machine Tool Technology	..	..	30	30	..	..	..	..	..	..	39
16. Instrument Technology	..	..	20	20	..	..	..	..	..	..	9
17. Heat Power Technology	..	..	20	20	..	..	..	..	..	..	16
18. Welding and Sheet Metal Technology	..	..	20	20	..	..	..	..	..	..	15
19. Machine Tool Maintenance	..	..	..	..	..	..	26	26	..	..	12
20. Sound and Television Engineering	..	..	25	25	..	..	..	..	..	..	28
21. Cinematography Technology	..	..	20	20	..	..	10	10	..	..	10
22. Sound Engg. and Sound Recording	..	..	..	..	..	..	10	10	..	..	7
23. Film Processing	..	..	..	..	..	..	5	5	..	..	3
24. Printing	..	..	..	..	40	40	85	85	..	..	106
25. Catering	..	..	..	..	..	..	80	81	..	..	66
26. Leather	..	..	..	..	..	..	30	39	..	..	29
27. Agriculture	..	..	..	..	..	..	45	35	..	..	15
28. Fisheries and Navigation	..	..	..	..	..	..	20	13	..	..	2
29. Design and Drafting Technology	..	..	..	..	..	..	15	15	..	..	..
Total	3332	3429	3953	4014	2290	2194	5206	5281	140	140	8870

**B 3. Statement of subject-wise facilities available for Diploma Courses in
Women's Polytechnics of Southern Region**

Subject	Andhra Pradesh		Karnataka		Kerala		Tamilnadu		Total out-turn
	Intake	Actual Admission	Intake	Actual Admission	Intake	Actual Admission	Intake	Actual Admission	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
1. Civil	70	75	65	65	..	..	87	91	136
2. Mechanical	..	..	..	..	..	..	12	12	..
3. Electrical	..	..	..	..	..	..	12	12	..
4. Electronics	125	132	..	..	45	44	109	109	179
5. Architecture	70	74	..	..	..	..	14	14	52
6. Instrument Techno- logy	..	..	..	..	15	15	30	30	14
7. Secretarial and Com- mercial Practice	225	232	140	140	151	150	160	164	379
8. Tele-Communication	..	..	96	96	..	..	..	..	57
9. Costume Design and Dress making	60	61	60	60	90	87	20	20	140
10. Catering Technology	70	63	..	..	..	..	..	..	25
11. Library Science	..	..	60	38	..	..	..	..	27
12. Cosmetology	..	..	..	..	..	..	10	10	7
13. Machine Design and Drafting	..	..	..	..	..	..	20	22	20
Total	620	637	421	399	301	296	474	484	1037

PART III

Technical Institutions—With Addresses and Sanctioned Intake 1980-81

Name and address of the Institutions	Year of Establishment	Name of the Principal	Telephones		No. Sanctioned intake 1980-81
			Office	Residence	
(1)	(2)	(3)	(4)		(5)
I. ENGINEERING COLLEGES					
(a) Government :					
1. College of Engineering, Kulathur, Trivandrum-16, Trivandrum Dist.	1939-40	Dr. P. J. George	8310 8370	64610	P.G. U.G. P.T. Degree 60 390 45
(Affiliated to Kerala University)					
2. Engineering College, Trichur-9 Trichur Dist.	1958-59	Dr. T.S. Rama- natha Iyer	21044 23590	20370	P.G. U.G. P.T. Degree 18 225 45
(Affiliated to Calicut University)					
(b) Private :					
3. Thangal Kunju Musaliar College of Engineering, Kilikollur, Quilon-5, Quilon Dist.	1958-59	Sri. P.O. J. Lebba	2004	4144	U.G. P.T. 295 45
(Affiliated to Kerala University)					
4. Mar Athanasius College of Engineering, Kothamangalam, Ernakulam District	1961-62	Sri V.K.M. John	63		U.G. 180
5. N.S.S. College of Engineering, Palghat, Pin. 678 008, Palghat Dist.	1960-61	Dr. V. Balakrishna Panikkar	8255	8256	U.G. 195
(Affiliated to Calicut University)					
(c) Quasi-Government :					
6. Regional Engineering College, Chathamangalam, Calicut-673 601, Calicut Dist.	1960-61	Dr. P.K. Charlee	Kunnamanga- lam 23	24	P.G. U.G. 30 250
(Affiliated to Calicut University)					

	(1)	(2)	(3)	(4)	(5)
II. POLYTECHNICS					
(a) Government :					
1.	Central Polytechnic, Vattiyoor-kavu, Trivandrum-13	1958-59	Sri S. Ganapathy	62391	Post Diploma Diploma P.T. 10 190 72
2.	Govt. Polytechnic, Nattakam, Kottayam-13	1960-61	Sri N.K. Chacko	2484	Diploma 160
3.	Govt. Polytechnic, Kalamassery, Alwaye-4	1951-52	Sri G. G. Salem	5356	Post Diploma Diploma P.T. 10 200 48
4.	Maharaja's Technical Institute, Trichur-1	1947-48	Sri C.V. Raghavan Nair	20290	Diploma P.T. 120 48
5.	Sree Rama Polytechnic, Valappad	1958-59	Sri P.S. Aravindakshan	39	Diploma 120
6.	Govt. Polytechnic, Perintalmanna, Angadipuram P.O.	1961-62	Sri E. Narayana Iyer	53	Diploma 120
7.	Kerala Govt. Polytechnic, West Hill, Calicut-5	1946-47	Sri K.S. Sreenivasa Naik	72914	Diploma P.T. 270 48
8.	Govt. Polytechnic, Thottada, Cannanore-7	1958-59	Sri V.K. Mohammed	4306	Diploma 150
9.	Govt. Polytechnic, Palghat, College of Commerce Campus, Pollachi Road, Palghat	1980-81	Sri N. Ramachandra Pisharady		Diploma 120
10.	Govt. Polytechnic, Idukki, Muttam, Idukki Dist.		Sri N.K. Madhusoodanan		Diploma 120
(b) Private Polytechnics :					
11.	Sree Narayana Polytechnic, Kottiyam, Quilon	1957-58	Sri N. G. Bahulayan	43	Diploma 180
12.	N.S.S. Polytechnic, Pandalam, Mannam Nagar P.O., Alleppey Dist.	1958-59	Sri N. Bhaskara-Kurup	34	Diploma 180
13.	Carmel Polytechnic, Punnappa, Alleppey-4	1958-59	Sri P. Balan	2225	Diploma 180
14.	Seethi Sahib Memorial Polytechnic, Thekkummuri, Tirur-676105	1962-63	„ K. Abdulla	234	„ 160
15.	Thyagaraja Polytechnic, Alagapanagar	1956-57	„ N. Ravindranathan	346	„ 180
16.	Swamy Nithyananda Polytechnic, Kanhangad, Pin. 673015	1966-67	„ V. Krishnan Moosad	110	„ 60
III. WOMEN'S POLYTECHNICS					
17.	Women's Polytechnic, Trivandrum, Pappanamcode, Trivandrum	1961-62	„ Gipson Charles	4582	„ 95
18.	Women's Polytechnic, Trichur-7, Nedupuzha P.O.	1962-63	„ M. Narayanan	21182	„ 125
19.	Women's Polytechnic, Malaparamba, Calicut	1963-64	„ M. Venkiteswaran	77214	„ 80
IV. INSTITUTE OF PRINTING TECHNOLOGY					
20.	Institute of Printing Technology, Shoranur	1967-68	„ V.K. Jawaharlal	50	„ 40

P G.—Post-Graduate Courses in Engineering
 U.G.—Under-Graduate Courses in Engineering
 P. T.—Part-time Courses

	(1)	(2)	(3)	(4)	(5)		
V. FINE ARTS INSTITUTIONS							
1.	College of Fine Arts, Trivandrum-1 (Affiliated to Kerala University)		Sri C.L. Porinchukutty	62028	8134	Degree	30
2.	Ravi Varma Institute of Fine Arts, Mavelikkara		„ P.O. Kochukutty			Diploma	40
3.	Govt. Institute of Fine Arts, Trichur		„ C. Krishnakutty Menon			„	20
VI. COMMERCIAL SCHOOLS							
1.	Govt. Commercial Institute, Pattom, Trivandrum		Smt. Rema Devi, P.				60
2.	Institute of Diploma Course in Shorthand and Typewriting Trivandrum		Sri S. Subramonia Pillai				30
3.	Govt. Commercial Institute, Alleppey	1980-81	„ R. Krishnakutty				
4.	Govt. Commercial Institute, Ernakulam		„ S. Ramadethan Unni				60
5.	Govt. Commercial Institute, Palghat	1980-81	„ K. Abdul Rahiman				
6.	Govt. Commercial Institute, Manjeri		„ T.A. Baby				60
VII. EXTENSION CENTRE OF TECHNICAL TEACHERS TRAINING INSTITUTE, KALAMASSERY							
			Prof. R. Venkataraman	5863			
VIII. FOOD CRAFT INSTITUTE							
1.	Kalamassery		Sri Jasper Jacob			F.T. P.T.	90 130
2.	Extension Centre of Food Craft Institute, Calicut		„ M. Osman			F.T. P.T.	60 20
IX. JUNIOR TECHNICAL SCHOOLS							
1.	Junior Technical School, Nedumangad, Nedumangad P.O., Trivandrum Dist.	1960-63	Sri N. Lekshmanaiyer				80
2.	Junior Technical School, Attingal, Attingal P.O., Trivandrum Dist.	1960-61	„ V. Surendran				80
3.	Junior Technical School, Ezhukone, Irumpangad P.O., Ezhukone	1962-63	„ M.G. Gopinathan Nair				80
4.	Junior Technical School, Adoor, Manakkala P.O., Adoor	1960-61	„ P.N. Mathew				80
5.	Junior Technical School, Krishnapuram, Kayamkulam, Alleppey Dist.	1962-63	„ V. Gopalakrishnan Nair				80
6.	Junior Technical School, Shertallai, Alleppey Dist.	1960-61	„ Muhammed Usuf				80
7.	Junior Technical School, Pampady, Velloor P.O.	1960-61	„ L. Mathew				80
8.	Junior Technical School, Puliyanur P.O., Palai	1961-62	„ R. Krishnakutty Nair				80
9.	Junior Technical School, Perumbavoor, Kottapady	1960-61	„ K. Joseph Mathew				80
10.	Junior Technical School, Koratty, Trichur Dist.	1961-62	„ P.K. Varkey				80
11.	Junior Technical School, Kodungallur, Kodungallur P.O., Trichur Dist.	1961-62	„ T.K. Surendran				80

(1)	(2)	(3)	(4)	(5)
12. Junior Technical School, Trichur, Trichur Dist.	1963-64	Sri K.K. Uduppunny		80
13. Junior Technical School, Kunnankulam P.O., Trichur Dist.	1960-61	„ C. Ramachandran		80
14. Junior Technical School, Shoranur, Palghat Dist.	1960-61	„ K. Venugopalan		80
15. Junior Technical School, Kuttippuram	1980-81	„ A. Ramachandran		80
16. Junior Technical School, Idukki, Adimalay P.O., Idukki Dist.	1980-81	„ T.I. Thomas		80
17. Junior Technical School, Chittur P. O.	1960-61	„ K. Raman		80
18. Junior Technical School, Palghat, Karunagappally, Palghat Dist.	1980-81	„ P.A. Mohamedali		80
19. Junior Technical School, Calicut	1963-64	Principal, Govt. Polytechnic, Calicut		80
20. Junior Technical School, Badagara, Badagara P.O., Calicut Dist.	1963-69	Sri A.K. Venugopalan		80
21. Junior Technical School, Manjeri	1960-61	„ K.T. Kunju Moideen		80
22. Junior Technical School, Cannanore, Thottada P.O., Cannanore Dist.	1963-64	„ P.P. Velayudhan Nambiar		80
23. Junior Technical School, Sultan Battery (Badagara)	1980-81	„ C.K. Moosa Koya		80
24. Junior Technical School, Cheruvathur	1960-64	„ K.K. Bhaskara Pothuval		80
25. Junior Technical School, Mattannur	1962-63	„ A. Haridasan		80

X. PRE-VOCATIONAL TRAINING CENTRES

Sl. No.	Name and address of the Institution	Year of establishment	Sanctioned intake
1.	Pre-Vocational Training Centre, Attached to JTS., Attingal, Trivandrum District	1965-66	30
2.	Do. Nedumangad, attached to JTS., Nedumangad, Trivandrum District	1978-79	30
3.	Do. Ezhukone, attached to JTS., Ezhukone, Quilon District	do.	30
4.	Do. Krishnapuram attached to JTS., Krishnapuram, Alleppey District	do.	30
5.	Do. Pampady, attached to JTS., Pampady, Kottayam District	do.	30
6.	Do. Koratty, attached to JTS., Koratty, Trichur District	do.	30
7.	Do. Kunnankulam attached to JTS., Kunnankulam, Trichur District	do.	30
8.	Do. Kodungallur, attached to JTS., Kodungallur, Trichur District	1972-73	30
9.	Do. Chittur, attached to JTS., Chittur, Palghat District	1978-79	30
10.	Do. Shoranur, attached to JTS., Shoranur, Palghat District	do.	30
11.	Do. Manjeri, attached to JTS., Manjeri, Malappuram	1969-70	30
12.	Do. Mattannur, attached to JTS., Mattannur	1978-79	30
13.	Do. Cannanore, attached to JTS., Cannanore	1972-73	30

XI. VOCATIONAL TRAINING CENTRES

(1)

<i>Sl. No.</i>	<i>Name and address of the Institution</i>	<i>Sanctioned intake</i>
1.	Tailoring Training Centre, Parassala, Trivandrum District	20
2.	Do. Pachallur, Trivandrum District	20
3.	Do. Karumkulam, Trivandrum District	20
4.	Do. Kanjiramkulam, Trivandrum District	20
5.	Do. Kandala, Trivandrum District	20
6.	Do. Chirayinkil, Trivandrum District	20
7.	Do. Chengannur, Alleppey District	20
8.	Weaving Training Centre, Aralumoodu, Trivandrum District	15
9.	Composing and Printing Centre, Vattiyookavu, Trivandrum District	30
10.	Book Binding Centre, Palkulangara, Trivandrum District	30
11.	Do. Kulathur, Trivandrum District	30
12.	Rattan Training Centre, Paraniyam, Trivandrum District.	15

XII. INDUSTRIAL SCHOOLS

<i>Sl. No.</i>	<i>Name and address of the Institution</i>	<i>Sanctioned intake</i>
1.	Government Industrial School, Irinjalakuda, Trichur District	20
2.	Do. Wadakkancherry, Trichur District	20

XIII. TAILORING AND GARMENT MAKING TRAINING CENTRES AND TAILORING TRADE SCHOOLS

<i>Sl. No.</i>	<i>Name and address of the institution</i>	<i>Year of starting</i>	<i>Sanctioned intake</i>
(1)	(2)	(3)	(4)
1.	Tailoring and Garment Making Training Centre, Pattom, Trivandrum District	..	60
2.	Do. Quilon, Quilon District	..	20
3.	Do. Kanjikuzhi, Kottayam District	..	20
4.	Do. Tripunithura, Ernakulam District	..	40
5.	Do. Narakal, Ernakulam District	..	40
6.	Do. Edappally, Ernakulam District	1979	20
7.	Do. Thodupuzha, Idukki District	1979	20
8.	Do. Kumili, Idukki District	1979	20
9.	Do. Trichur, Trichur District	..	40
10.	Do. Kadappuram, Trichur District	1979	20
11.	Do. Kalpathi, Palghat District	..	20
12.	Do. Mannarghat, Palghat District	1979	20
13.	Do. Kondotty, Malappuram District	..	20
14.	Do. Mankada, Malappuram District	1979	20
15.	Do. Ponnani, Malappuram District	1979	20
16.	Do. Vengara, Malappuram District	1979	20
17.	Do. Badagara, Kozhikode District	..	20
18.	Do. Kuttichira, Kozhikode District	1979	20

(1)	(2)	(3)	(4)
19.	Tailoring and Garment Making Training Centre,	Sultan Battery, Kozhikode District	1979 20
20.	Do.	Dharmadam, Tellicherry, Cannanore District	.. 20
21.	Do.	Cheruvathur, Cannanore District	.. 20
22.	Do.	Kasargode, Cannanore District	1979 20
23.	Tailoring Trade School, Haripad, Alleppey District		.. 20
24.	Tailoring Trade School, Devikulam, Idukki District		.. 20

PART IV

FACILITIES FOR ACADEMIC COURSES

A. Courses, Intake and Institutions
Conducting the Courses

<i>Courses</i>	<i>Institutions where it is offered</i>
I. ENGINEERING COLLEGES	
A. Post-Graduate Courses:	
I. Civil Engineering Electives	1. Structural Engineering } College of Engineering, Trivandrum (6) and Regional College of Engineering Calicut (10)
	2. Hydraulics } College of Engineering, Trivandrum (6)
	3. Soil Mechanics } College of Engineering, Trivandrum (6)
	4. Public Health Engineering } College of Engineering, Trivandrum (6)
II. Mechanical Engineering Electives	1. Heat Power Engine } College of Engineering, Trivandrum (6)
	2. Machine Design } College of Engineering, Trivandrum (6)
	3. Production Engineering } College of Engineering, Trichur (6)
	4. Refrigeration & Air-conditioning } Regional Engineering College, Calicut (10)
III. Electrical Engineering Electives	1. Power System } College of Engineering, Trivandrum (6)
	2. Electrical Machine Design } College of Engineering, Trivandrum (6)
	3. Control system } College of Engineering, Trivandrum (6) and Trichur (6) and Regional Engineering College, Calicut (10).
IV. Electronics and Tele-Communication Engineering Electives	1. Microwave Engineering } College of Engineering, Trivandrum (6)
	2. Applied Electronics } do. (4)
V. Chemical Engineering	Elective—1 Process Control—College of Engineering, Trichur (6)

Note: Figure within the bracket shows the sanctioned intake.

<i>Courses</i>	<i>Sanctioned intake</i>	<i>Institutions where it is offered</i>
B. Under-Graduate Courses:		
(B. Sc. Engineering)		
1. Civil Engineering	450	All six Engineering Colleges of State
2. Mechanical Engineering	460	All six Engineering Colleges of State
3. Electrical Engineering	380	All six Engineering Colleges of the State
4. Electronics	115	College of Engineering, Trivandrum, T. K. M. College of Engineering, Quilon and Regional Engineering College, Calicut.
5. Architecture	20	Engineering College, Trivandrum (20).
6. Chemical Engineering	65	Engineering College, Trichur-(50), T. K. M. Engineering College, Quilon-(15).
7. Production-cum Plant Engineering	15	Engineering College, Trichur-(15).
8. Instrumentation and Control	15	N. S. S. Engineering College, Palghat (15).
9. Production Engineering	15	T. K. M. Engineering College, Quilon (15).
C. Part-Time Degree Course:		
1. Civil Engineering	55	College of Engineering, Trivandrum (20), Trichur-(20) and T. K. M. College of Engineering, Quilon (15).
2. Mechanical	45	College of Engineering, Trivandrum (20), Trichur, (20) and T. K. M. Quilon (5)
3. Electrical	45	College of Engineering, Trivandrum (20) and Trichur (20), T. K. M., Quilon (5).
2. COLLEGE OF FINE ARTS: 2		
Degree Courses in Fine Arts		
1. Painting	} 30	College of Fine Arts, Trivandrum
2. Sculpture		
3. Applied Art		
3. POLYTECHNICS:		
A. Post Diploma Course:		
1. Industrial Electronics	10	Central Polytechnic, Trivandrum.
2. Air Conditioning and Refrigeration	10	Government Polytechnic, Kalamassery.
B. Diploma Courses:		
1. Civil	660	13 Polytechnics
2. Mechanical	700	All Polytechnics except Women's Polytechnic
3. Electrical	660	13 Polytechnics
4. Automobile	60	Polytechnic, Kalamassery and Kanhangad
5. Chemical	50	Polytechnics, Kalamassery and Kozhikode
6. Textile Technology	60	Polytechnics, Trivandrum and Cannanore
7. Electronics	80	{ Central Polytechnic, Trivandrum
	45	{ S. S. M. Polytechnic, Tirur
		Women's Polytechnic, Trichur
		Polytechnic Palghat
		Government Polytechnic, Kottayam
		Institute of Printing Technology, Shoranur
		Women's Polytechnic, Trivandrum,
		Polytechnic Palghat
		Women's Polytechnic, Trivandrum, Trichur,
		Calicut and Government Polytechnics,
		Kottayam, Polytechnic, Idukki
		Women's Polytechnics, Trivandrum, Trichur
		and Calicut
C. Part-time Diploma Courses:		
(i) Civil	72	} Polytechnics at Trivandrum
(ii) Mechanical	72	
(iii) Electrical	72	
		Kalamassery
		Trichur and Calicut

<i>Courses</i>	<i>Sanctioned intake</i>	<i>Institution when it is offered</i>
D. <i>Certificate Course in Textile Technology:</i> Textile Technology	60	Central Polytechnic, Trivandrum (30) Government Polytechnic, Cannanore (30)
E. <i>Craft Courses:</i>		
1. Rattan and Basket Making	12	} Central Polytechnic, Trivandrum
2. Lacquer Work	12	
3. Carpet and Durrie weaving	12	
4. FINE ARTS INSTITUTIONS		
A. <i>Post Diploma:</i> Drawing and Painting Modelling and Sculpture	} 60	R. V. Institute of Fine Arts, Mavelikara
B. <i>Diploma</i> Drawing and Painting Modelling		R. V. Institute of Fine Arts, Mavelikara Institute of Fine Arts, Trichur
C. <i>Certificate Course:</i> Drawing and Painting Modelling and Sculpture		R. V. Institute of Fine Arts, Mavelikara and Institute of Fine Arts, Trichur
5. FOOD CRAFT INSTITUTIONS		
A. <i>Certificate Course:</i>		
1. Craftsmanship in Cookery	40	Food Craft Institute Kalamassery (20) and Extension Centre, Calicut (20)
2. Craftsmanship in Bakery and Confectionery	15	Food Craft Institute, Kalamassery
3. Canning and Food Preservation craftsmanship	15	do.
4. Hotel reception and Book Keeping Craftsmanship	40	do. (20) and Extension Centre, Calicut (20)
5. Restaurant and counter service	40	do.
B. <i>Short Term Course:</i>		
1. Cookery	40	do.
2. Bakery and Confectionery	20	Food Craft Institute, Kalamassery
3. Canning and Food Preservation	10	do.
6. COMMERCIAL INSTITUTES		
A. <i>Part-time Diploma:</i> Part-time Diploma in Shorthand and Typewriting	30	Institute of Diploma Course in Typewriting and Shorthand
B. <i>Certificate Course:</i> Certificate Course in Commerce (K. G. T.)	60 in each institution	Government Commercial Institutes, Trivandrum, Ernakulam, Manjeri.

7. SHORT TERM (ONE YEAR) TECHNICAL COURSES OF POST-S, S. L. C. LEVEL

<i>Name of course</i>	<i>Institution conducting the course</i>	<i>Sanctioned intake</i>
(1)	(2)	(3)
1. Building Technology	Government Polytechnic, Calicut, Calicut District	15
2. Maintenance Technology	Junior Technical School, Manjeri, Malappuram District.	15
3. Welding Technology	J. T. School, Nedumangad, Trivandrum District	15
4. Refrigeration and Air Conditioning	J. T. School, Shertallai, Alleppey District	15
5. Highway Engineering	Government Polytechnic, Perinthalmanna, Malappuram District.	15
6. P. H. Engineering	Government Polytechnic, Kottayam	15
7. Furniture Technology	J. T. School, Cannanore, Cannanore District	15

(1)	(2)	(3)
8. Surface furnishing Technology	J.T. School, Badagara, Kozhikode District	15
9. Tailoring and Garment Making	J. T. School, Mattannur, Cannanore District	15
8. TAILORING AND GARMENT MAKING CENTRES/INDUSTRIAL SCHOOLS TRAINING/VOCATIONAL TRAINING CENTRES		
<i>Diploma Course:</i>		
1. Book Binding	1. Book Binding Centre, Palkulangara, Trivandrum.	
	2. Book Binding Centre, Kulathur, Trivandrum District.	
2. Rattan Works	Rattan Training Centre, Paraniyam, Trivandrum District.	
3. Composing and Printing	Composing and Printing Centre, Vattiyoor kavu, Trivandrum District.	
4. Weaving	Weaving Training Centre, Aralummoodu, Trivandrum District.	
5. Tailoring and Embroidery	1. Government Industrial School, Irinjalakuda, Trichur District.	
	2. Government Industrial School, Wadakkancherry, Trichur District.	
6. Tailoring and Garment Making	All Tailoring and Garment Centres, Tailoring Trade Schools and Tailoring Training Centres of Vocational Training Centres.	
9. JUNIOR TECHNICAL SCHOOLS		

Trades	School where the courses are conducted	Remarks
1. Machinshop	All J. T. Schools	During the period of 3 years of J. T. S. Course students are given Special Training for any one of the trades from 2nd year onwards.
2. Turner	do.	
3. Fitting	do.	
4. Smithy	do.	
5. Pattern making	do.	
6. Welding	do.	
7. Sheet metal	do.	
8. Moulding	do.	
9. Electric Repair	J. T. S. Kunnamkulam	
10. Cabinet Making	do. Mattanur	
11. Electroplating	do. Shoranur and Nedumangad	
12. Agriculture	do. Chittur and Kodungallur	
13. Rubber Technology	do. Pampady and Idukki	
14. Plumbing	do. Krishnapuram	
15. Surface furnishing and paints	do. Koratty and Palghat	
16. Air conditioning & refrigeration	do. Sherthalai, Idukki and Koratty	
17. Candles, Soaps and detergents	do. Calicut (proposed)	
18. Building Technology	do. Trichur	
19. Automobile	do. Manjeri and Badagara	
20. Electronics Mechanic	do. Palai and Cheruvathur	
21. Electrical Wiring and Motor winding	do. Attingal	
22. Herology	do. Adoor	
23. Fisheries	do. Ezhukone	
24. Typewriting & Sewing Mechanic	do. Perumbavoor	
25. Weaving	do. Cannanore	

Trades	Institutions where the course is conducted	Remarks
26. Composing, Proof reading, Book Binding	J.T.S. Kunnankulam	
27. Timber Technology	do. Idukki and Kuttipuram	
28. Canning and Cookery	do. Idukki and Palghat	
29. Construction Technology	do. Kuttipuram	
30. Sanitary Engineering	do. Kuttipuram	
31. Vehicle Mechanic	do. Kuttipuram and Palghat.	
32. Maintenance of Domestic appliances	do. Kuttipuram	
10. P.V.T. CENTRES		
1. Smithy	P.V.T. Centre attached to J.T. School, Attingal	
2. Foundry	P.V.T. Centre, Manjeri P.V.T. Centre, Attingal do. Manjeri	
3. Sheet Metal	do. Attingal and Manjeri	
4. Welding	do. do.	
5. Carpentry	do. do.	
6. Fitting	do. do.	
7. Machinshop	do. do.	
8. Elementary Training based on Agriculture	P.V.T.C. attached to J.T.S., Kodungallur	
9. Tailoring and Embroidery (Girls)	P.V.T.C. attached to J.T.S., Manjeri for Girls	
10. Home Science and Needle Crafts	P.V.T.C. attached to J.T.S., Cannanore only for girls	
11. Agriculture	P.V.T.C. attached to J.T.S., Nedumangad and Chittoor	
12. Cabinet Making	P.V.T.C. attached to J.T.S., Mattannur	
13. Book Binding and Composing	P.V.T.C. attached to J.T.S., Kunnankulam	
14. Painting, Varnishing and Surface polishing	P.V.T.C. attached to J.T.S., Koratty	
15. Rubber products	P.V.T.C. attached to J.T.S., Pampady	
16. Coir Technology	P.V.T.C. attached to J.T.S., Krishnapuram	
17. Fisheries	P.V.T.C. attached to J.T.S., Ezhukone	
18. Fitting and Welding	P.V.T.C. attached to J.T.S., Shoranur	

FACILITIES FOR ACADEMIC COURSES

B. Technical Courses offered, duration and minimum qualification for admission for each Course

Courses	Duration	Minimum qualification for admission
(1)	(2)	(3)
I Engineering Colleges and College of Fine Arts		
A. POST-GRADUATE COURSES IN	2 years	Should have passed the qualifying Examination with minimum 60% marks.
Structural Engineering	4 semesters	
(i) Civil:		
Hydraulics, Soil Mechanics, Public Health Engineering		
(ii) Mechanical:		
Heat Power Engineering		
Machine Design, Production Engineering, Refrigeration and Air Conditioning	do.	do.
(iii) Electrical:		
Power System	do.	do.
Electrical Machine Design		
Control System		

(1)	(2)	(3)
(iv) <i>Electronics:</i> Microwave Engineering Applied Electronics	2 years 4 Semesters do.	do. do.
(v) <i>Chemical:</i> Process Control	do. 4 years 8 semesters	do. Candidates should have passed the Pre-degree Examination of Kerala/Calicut University with Mathematics, Physics and Chemistry as optional subjects or any other examination accepted as equivalent thereto securing a minimum of 50% marks in Mathematics & 50% marks in Mathematics, Physics Chemistry put together.
B. UNDER GRADUATE COURSES (i) Civil (ii) Mechanical (iii) Electrical (iv) Electronics (v) Chemical (vi) Architecture (vii) Production-cum-plant Engineering	4 years 8 semesters	Candidates should have passed the Diploma Examination in the respective branch of Engineering after undergoing regular course of not less than 3 years and should be in employment in Engineering profession at least for the last 2 years.
C. PART-TIME B. SC. (ENGG.) DEGREE COURSE (i) Civil (ii) Mechanical (iii) Electrical	4 years 8 semesters	Candidates should have passed the Diploma Examination in the respective branch of Engineering after undergoing regular course of not less than 3 years and should be in employment in Engineering profession at least for the last 2 years.
2. COLLEGE OF FINE ARTS Degree course in Fine Arts	2 years preparatory course & 3 year in one of the specialised branch	Candidates seeking admission in the 1st year of the integrated preparatory course must have passed S. S. L. C. or equivalent examination with eligibility for College admission and should have completed 15 years of age. Selection will be made after conducting aptitude test.
3. POLYTECHNICS		
A. <i>Post-Diploma Courses:</i>		
1. Industrial Electronics	9 months including 3 months practical training	Diploma in Electronics awarded by the State Board of Technical Education, Kerala after an institutional course of 3 years. Candidates who have taken more than 2 chances for qualifying Examinations will not be eligible.
2. Air Conditioning and Refrigeration	1 year including 4/5 months practical training	Diploma in Electrical or Mechanical Engineering and other conditions same as stated above.
B. <i>Diploma Courses:</i>		
1. Civil 2. Mechanical 3. Electrical 4. Electronics 5. Automobile 6. Chemical 7. Polymer Technology 8. Instrument Technology 9. Textile Technology 10. Commercial Practice	3 years	Candidates should have passed S.S.L.C./JTSLC examination or any Examination declared equivalent thereto with eligibility for College Admission. Minimum marks for admission will be 45% for Mathematics and Science put together.
11. Printing Technology	3 years	Candidates should have passed SSLC/JTSLC examination as any equivalent examination with eligibility for College admission. Candidates should have a minimum marks of 45% for English. Qualification same as above with 45% marks in aggregate. Pass in SSLC.
12. Costume Design and Dress making	2 years	
C. <i>Part-time Diploma Course:</i>		
Civil Mechanical Electrical	3 years	Qualifications same as regular Diploma Courses. Admission is restricted to candidates who are employees/Apprentices. Preference will be given to those who are engaged in Engineering Profession.

(1)	(2)	(3)
D. Certificate Course:		
Textile Technology	2 years	Pass in Standard VIII.
E. Craft Course in Polytechnics:		
1. Rattan & Basket Making	2 years	Pass in Standard VIII.
2. Lacquer work	2 years	
3. Carpet and Durrie Weaving	2 years	
4. FINE ARTS INSTITUTIONS		
A. Post Diploma Course:		
Drawing and Painting	1 year	Pass in Standard VIII and Diploma in the concerned subject.
Modelling and Sculpture	1 year	
B. Diploma Course		
Drawing and Painting	2 years	Pass in Standard VIII and Certificate in the concerned subjects.
Modelling	2 years	
C. Certificate Course		
Drawing and Painting	2 years	Pass in Standard VIII. Selection is made after conducting aptitude test.
Modelling	2 years	
5. FOOD CRAFT INSTITUTION		
1. Craftsmanship in Cookery	1 year	S.S.L.C. passed or equivalent.
2. Craftsmanship in Bakery and Confectionary	1 year	do.
3. Canning and Food Preservation Craftsmanship	1 year	Pre-degree passed or equivalent.
4. Hotel Reception and Book-keeping Craftsmanship	1 year	do.
5. Restaurant and Counter-Service	1 year	do.
Short-term course:		
1. Cookery	13 weeks (Twice in a week)	For house-wives
2. Bakery and Confectionary		
3. Canning, Food Preservation		
6. COMMERCIAL INSTITUTIONS		
A. Part-time Diploma:		
Part-time Diploma in Typewriting and Shorthand	2 years	Pre-degree or equivalent examination
B. Certificate Course:		
Certificate course in Commerce	2 years	S. S. L. C. or equivalent examination
7. Short-term (one year) Technical courses of post S. S. L. C. level	1 year	Passed the S. S. L. C./J. T. S. L. C. or equivalent with eligibility for admission to a course of study in Universities in Kerala
8. Tailoring and Garment Making Training Centre/Industrial Schools/Vocational Training Centres:		
1. Book Binding	1 year	Pass in the VII Standard
2. Rattan	2 years	
3. Composing and Printing	1 year	
4. Weaving	1 year	
5. Tailoring & Embroidery	1 year	
6. Tailoring & Garment Making	1 year	Pass in the VII Standard
9. Junior Technical School	3 years	Passed VII Standard or Pre-Vocational Training (Age between 11 to 16)
10. Pre-Vocational Training Centre	3 years	Passed (IV Standard) Vocational Training (Age between 9 to 12)

PART V

Academic Bodies

1. *List of Various Boards/Councils/Universities/Institutions/Societies connected with the Technical Education Department*
1. All India Council for Technical Education.
 2. All India Council for Technical Education, Southern Region.
 3. All India Board of Technical Education.
 4. Indian Society of Technical Education.
 5. Water Conductor System Sectional Committee of Indian Standards Institution.
 6. Indian Institute of Technology, Madras.
 7. B. M. S. College of Engineering, Bangalore..
 8. Engineering College, Gulburga.
 9. Technical Teacher's Training Institute, Madras.
 10. Board of Apprenticeship Training, Madras.
 11. State Committee on Science and Technology.
 12. Inter University Consultative Committee, Kerala State.
 13. Centre for Water Resources Development and Management, Kerala State.
 14. Kerala Books and Publication Society, Cochin.
 15. State Board of Technical Education, Kerala.
 16. Board of Studies in Engineering and Technology.
 17. State Council for Women's Education, Kerala.
 18. State Advisory Committee for the Welfare of the Handicapped.
 19. State Advisory Board of Education.
 20. Managing Committee of Kerala Flying Club.
 21. R & D Committee of Science and Technology.
 22. Board of Diploma Examinations in Engineering Technology.
 23. State Level Sub-Committee of Board of Apprenticeship Training.
 24. Board of Governors, Regional Engineering College, Calicut.
 25. Board of Governors, Private Engineering Colleges and Polytechnics in Kerala State.
 26. Board of Governors, Food Craft Institute, Kalamassery.
 27. Faculty of Engineering, Kerala University.
 28. Board of Studies in Engineering (Pass) Graduate of Kerala University.
 29. Academic Council of Kerala University.
 30. Academic Council of Cochin University.
 31. Faculty of Engineering, Cochin University.
 32. Boards of Studies in Engineering (Pass—Post Graduate) Boards of Studies in Technology, Cochin University.
 33. Academic Council, Calicut University.
 34. All India Beach Erosion Board.
 35. Boards of Studies in Engineering and Faculty of Engineering, Calicut University.
 36. Lal Bahadur Shastri Engineering Research and Consultancy Centre.

2. *Sub-Committee Members of State Level Apprenticeship Committee*

1. Director of Technical Education.
2. Director of Employment and Training.
3. Director of Industries and Commerce.
4. Chief Engineer, Kerala State Electricity Board.
5. Chief Engineer, P.W.D. (B&R).
6. Chief Engineer, P. H. Engineering.
7. Manager (Training), Cochin Shipyard.
8. Regional Central Apprenticeship Advisor or his representative.

3. *Members of the Board of studies in Engineering & Technology*

- | | |
|----------------------------------------------------------------------------------------|----------|
| 1. Director of Technical Education, Trivandrum | Chairman |
| 2. Director of Public Instruction | Member |
| 3. Chief Engineer (General), P.W.D. | do. |
| 4. Chief Engineer (Electricity) K. S. E. Board | do. |
| 5. Shri G. G. Salem, Principal, Government Polytechnic, Kalamassery (Mechanical) | do. |
| 6. Ramavarma Appan Thampuran, Senior Lecturer, Government Polytechnic, Cannanore. | do. |
| 7. Dr. M. V. Raghavacharya, Principal, Engineering College, Trichur. | do. |
| 8. Shri N. Bhaskara Kurup, Principal, N.S.S. Polytechnic, Pandalam. | do. |
| 9. Shri P. M. Janaranjanadas, Professor, Government College, Madappally. | do. |
| 10. Dr. P. J. George, Principal College of Engineering, Trivandrum. | do. |
| 11. Shri George Pettah, Deputy Director of Technical Education (Electrical) | do. |
| 12. Prof. Sreeramamurthy, Professor-in-charge, T.T.T.I. Extension Centre, Kalamassery. | do. |
| 13. Shri C. I. Mathew, Joint Director of Technical Education. | do. |

4. *Members of the State Board of Technical Education*

1. Hon'ble Minister of Education—Chairman.

Government/Official Nominees:

1. Special Secretary to Government, Higher Education.
2. Commissioner for General Education and Special Secretary.
3. Commissioner and Special Secretary to Government, Industries Department.
4. The Special Secretary to Government, Finance Department.
5. Director of Industries and Commerce.
6. Director of Employment and Training.
7. Director of Collegiate Education.
8. Director of Public Instruction.
9. Chief Engineer, P.W.D. (General)
10. Chief Engineer (Electricity) Kerala State Electricity Board.

Nominees of Universities:

1. Kerala University.
2. Calicut University.
3. Cochin University.
4. Agricultural University.

Nominees of Government of India

1. Deputy Educational Adviser (Southern Regional Committee) Madras.
2. Principal, Technical Teachers Training Institute, Madras.

Nominees of Professional bodies:

1. Institution of Engineers (India).
2. Indian Society for Technical Education.

Nominees of Research Organisations:

1. Vikram Sarabhai Space Centre.
2. Council of Scientific and Industrial Research.

Parliament and State Legislature:

1. Shri P. J. Kurian, M. P.
2. Shri A. V. Thamarakshan, M. L. A.

Recognised Associations:

1. Chairman, Kerala State Polytechnic Students Union.
2. President, Diploma Engineers Association.

Engineering Industries:

1. Representative Association of Indian Engineering Industry.
2. Shri A. K. Kaderkutty, Western India Plywoods Ltd., Baliapatam (Private Industrialist).

*Technical Institutions:**(a) Engineering Colleges:*

1. Dr. P. J. George, Principal (Government Engineering College) Engineering College, Trivandrum.
2. Shri P.O. J. Lebba, Principal (Private Engineering College), T. K. M. College of Engineering, Quilon.

(b) Polytechnics:

1. Shri G. G. Salem, Principal (Government Polytechnic) Government Polytechnic, Kalamassery.
2. Shri N. Bhaskara Kurup, Principal (Private Polytechnic) N. S. S. Polytechnic, Pandalam.

(c) Junior Technical School:

1. Shri Mohammed Ali, Superintendent, Junior Technical School, Palghat.

EXPERTS:

1. Dr. R. Jayaraman, Professor, Engineering College, Trivandrum.
2. Dr. M. R. Sreedharan Nair, Professor, Engineering College, Trichur.
3. Dr. S. Hariharan, Professor, Engineering College, Trivandrum.
4. Shri K. P. P. Nambiar, Chairman, Keltron.
5. Professor Sivasankara Pillai, Professor, Engineering College, Trichur.
6. Shri Jipson Charles, Principal, Women's Polytechnic, Trivandrum.
7. Shri V. K. Jawaharlal, Principal, Institute of Printing Technology, Shoranur.
8. Shri V. Nirmalan Thampy, Joint General Manager, K.S.R.T.C., Trivandrum.
9. Technical Member, Rubber Board, Kottayam
10. Dr. M. S. Valiathan, Director, Sree Chitra Medical Centre.

Civil
Mechanical
Electrical
Electronics
Chemical
Commerce
Printing
Automobile &
Production
Polymer
Technology
Biomedical
Engineering

- | | |
|----------------------------------------------------------------------------|-------------|
| 11. Shri C. L. Porinchukutty, Principal, College of Fine Arts, Trivandrum. | Fine Arts |
| 12. General Manager, National Textile Corporation, Cochin. | Textile |
| 13. General Manager, Modern Bakeries, Kalamassery. | Food Crafts |
| 14. Professor, C. Karunakaran, Director, Centre for Earth Science Studies. | Science |
| 15. Director of Technical Education. | Convener |

PART VI

FACILITIES AND PROGRAMMES

I. Faculty Development Programme:

I. Quality Improvement Programme:

- (a) Long term Academic Course leading to Ph. D., M. Tech. and M. Sc. Engineering.
The faculty members of Engineering Colleges are deputed for this course.

- (b) Short term in service training course.

This is an inservice training for 3 months. The staff from the rank of Demonstrators up to the rank of Professors are deputed to various industries and factories for getting advanced practical knowledge and training in specific disciplines.

II. Technical Teachers Training Programme:

The teaching staff of Polytechnic are deputed to Technical Teachers' Training Institutes for Diploma course and for the B. Tech. (Ed.)

III. Foreman Training:

Workshop personnel are deputed for Foreman Training (at Foreman Training Institute, Bangalore), for acquiring up-to-date knowledge in the workshop.

IV. Craftsman Training Programme:

Skilled Assistants are deputed for this training to enrich their knowledge.

2. Reservation of seats on reciprocal basis in other States

Karnataka:-

Civil Engineering	1
Mechanical	1
Electrical Engineering	1

Madras

Civil	}	2
Mechanical Engineering		
Electrical		

3. Computer Facilities in the State (used by the Technical Education Department)

- College of Engineering, Trivandrum.
- V.S.S.C., Trivandrum.
- University of Kerala, Trivandrum.

4. Development Programme

- Supervisory Development Programme for Graduate Engineering Trainees.
- Supervisory Development Programme for Final Year Engineering Degree Students.

5. Lal Bahadur Sastri Engineering and Consultancy Centre

This centre is an autonomous body registered in June 1976. This has been established mainly as a Research and Consultancy centre with the following main objectives.

- To act as a link between the Technical Institutions of the State and Industry to utilise the available expertise in terms of men, machines and know-how for growth and development of the Industry.
- To provide consultancy services in various fields to the Industry through the facilities and staff of Engineering Institutions and Departments.
- To provide opportunities for the staff and students in Engineering Institutions to come into contact with practical problems of Industries.
- To provide facilities for continuing education in Engineering and related fields by conducting short term courses, refresher courses, workshop and arrange seminars, conferences etc.

6.A. Number of Seats available for Students qualifying from Schools and Colleges of Kerala in Regional Engineering Colleges of other States 1980-81

Sl. No.	Name of Regional Engineering College	Seats available		
		Open seat	Reserved seat	Total
1.	Regional Engineering College, Warangal, Andhra Pradesh	3	1	4
2.	Regional Institute of Technology, Jamshedpur, Bihar	3	1	4
3.	Regional Engineering College, Kurushetra, Punjab	4	1	5
4.	Regional College of Engineering and Technology, Surat, Gujarat	4	1	5
5.	Regional Engineering College, Nascembagh, Srinagar, J&K State	3	1	4
6.	Visweswaraya Regional College of Engineering, Nagpur, Maharashtra	3	2	5
7.	Regional Engineering College, Rourkela, Orissa	2	..	2
8.	Malavia Regional Engineering College, Jaipur, Rajasthan	2	..	2
9.	Motilal Nehru Regional Engineering College, Allahabad, U. P.	4	1	5
10.	Regional Engineering College, Durgapur, West Bengal	4	1	5
11.	Moulana Azad College of Engineering Technology, Bhopal, M. P.	} Details are not readily available		
12.	R.E.C. Silchar, Assam			
13.	R.E.C. Surathkal, Mangalore, Karnataka			
14.	R.E.C. Thiruchirappally, Tamil Nadu			

B. Branch-wise number of seats available for Students from Kerala in Regional Engineering Colleges of other States—1980-81

Sl. No.	Name of College	Open seats					Reserved seats for S. C.					Remarks			
		Civil	Mechanical	Electrical	Chemical	Metallurgy	Electronics & Communication	Total	Civil	Mechanical	Electrical		Architecture	Total	Grand Total
1.	Regional Engineering College, Warangal	..	1	1	..	1	..	3	1	1	4	Selection of Kerala Candidate for these seats will be made by the Principal, R.E.C. Calicut.
2.	„ Jamshedpur	..	1	1	..	1	..	3	1	..	..	..	1	4
3.	„ Kurushetra	1	2	1	..	..	..	4	..	1	..	..	1	5
4.	„ Surat	2	1	1	..	..	..	4	..	1	..	..	1	5
5.	„ Srinagar	1	1	1	..	..	..	3	..	..	1	..	1	4
6.	„ Nagpur	1	..	1	..	1	..	3	..	..	1	1	2	5
7.	„ Rourkela	..	1	..	1	..	..	2	..	..	..	..	..	2
8.	„ Jaipur	..	1	1	..	..	..	2	..	..	..	..	..	2
9.	„ Allahabad	1	2	1	..	..	..	4	..	1	..	..	1	5
10.	„ Durgapur	..	2	1	..	1	..	4	..	..	1	..	1	5

PART VII

A. Institutions-wise Students, Staff, Expenditure—Engineering Colleges, Polytechnics and Junior Technical Schools—1979-80 (Provisional)

Institutions	Students			Staff (Excluding ministerial)			Expenditure 1979-'80 (Revised Budget)		
	No. of Institutions	Actual Admission	Total enrolment	Teaching staff	Non-teaching staff	Total	Non Plan (Rs. lakhs)	Plan (Rs. in lakhs)	Total (Rs. lakhs)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)

I. ENGINEERING COLLEGES

A. Government	2	..	..	..	..	..	..	..	..
P. G. Course	..	68	125	..	..	..	..	..	..
U. G. Course	..	475	1727	..	..	..	..	..	..
Total	..	543	1853	278	187	465	69.45	40.85	110.30

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
B. Private	3		1701	208	177	385	42.51	0.40	42.91
U. G. Course		465							
C. Quasi-Government	1								
P. G. Course	..	22	40	..	..	..	..	..	..
U. G. Course	..	240	992	137	149	286	26.00	2.00	28.00
Total	..	262	1032	..	..	..	..	..	..
Colleges Total	6	..	..	..	..	..	..	..	..
P. G. Course	..	90	165	..	..	..	..	..	..
U. G. Course	..	1180	4420	..	..	..	..	..	..
Grand Total		1270	4585	623	513	1136	137.96	42.25	181.21
II. POLYTECHNICS (Including Printing)									
A. Government	9	1536	4362	364	252	616	82.99	3.50	86.09
B. Private	6	925	2623	232	95	327	39.76	0.20	39.96
C. Government	3	299	779	68	22	90	11.05	3.25	14.30
Women's Polytechnics									
Total Polytechnics	18	2760	7784	664	369	1033	133.80	6.95	140.75
III. JUNIOR TECHNICAL SCHOOLS									
Total	21	1325	3929	256	295	551	64.87	4.00	68.87
	21	1325	3929	256	295	551	64.87	4.00	68.87

B. Branch-wise actual admission—Enrolment and out-turn of Students 1979-80 (Provisional)

Branch	Actual admission	Enrolment	Out-turn 1978-79 (Excluding result of supplementary examinations)
(1)	(2)	(3)	(4)
I. Engineering Colleges			
P. G. COURSE :			
1. Civil	20	41	8
2. Mechanical	26	43	15
3. Electrical	36	65	13
4. Electronics	2	6	2
5. Chemical	6	10	..
Total	90	165	38
U. G. COURSE :			
1. Civil	334	1281	233
2. Mechanical	349	1413	241
3. Electrical	340	1228	220
4. Electronics	75	262	37
5. Chemical	52	166	31
6. Architecture	15	55	6
7. Production	15	15	..
Total	1180	4420	768

**Branch-wise actual admission, Enrolment and out-turn of Students 1979-80
(Provisional)**

<i>Branch</i>	<i>Actual admission (including part-time)</i>	<i>Enrolment (including part-time)</i>	<i>Out-turn excluding supplementary examination</i>
II. Polytechnics (Diploma)			
1. Civil	744	2139	258
2. Mechanical	751	2077	309
3. Electrical	647	1940	283
4. Electronics	126	366	78
5. Chemical	48	144	28
6. Automobile	58	194	27
7. Polymer Technology	10	16	..
8. Textile Technology	60	134	38
9. Printing Technology	40	103	9
10. Instrument Technology	15	42	8
11. Diploma in Commercial Practice	171	491	80
12. Costume Design and Dress Making	90	168	45
Total	2760	7784	1163
III. Junior Technical Schools			
Junior Technical Schools	1325	3917	670

STATISTICAL REVIEW ON
ADMISSION OF CANDIDATES FOR
B.Sc. ENGINEERING COURSES 1980—81

By

N. SIVADASAN

Manpower Officer

Department of Technical Education

Kerala

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

1964

PART I

REVIEW ON ADMISSION IN B. Sc. ENGINEERING COURSE
FOR THE YEAR 1980-81

I. Introduction

1. Kerala the most densely populated State has also the highest percentage of literacy. There are six Engineering Colleges in the State, two under Government management and three under Private management and one under Quasi-Government management. Both Government and Private Engineering Colleges are under the administrative control of the Director of Technical Education. The admission of candidates in these 5 Colleges is made by the Department of Technical Education as per the advice of the Selection Committee constituted for this purpose, and as per the rules and orders of the Government.

This is a statistical review on the admission of candidates for B. Sc. Engineering Course for the current academic year 1980-81. The review is mainly intended to throw light upon certain features such as the subject most preferred, the place (District) from where more candidates applied, the receipt of applications from candidates belonging to different communities and their marks in the qualifying examination etc.

Further this review is mainly concerned with the details of admission of candidates for B. Sc. Engineering Course in the five Engineering Colleges, made by this Department. In order to make this review complete, a brief note on the admission of Kerala candidates in the Regional Engineering College, Calicut is also given.

II. Allocation of seats in five Engineering Colleges (1980-81)

In the current academic year 1240 seats have been sanctioned (excluding the seats for the new courses sanctioned recently in the Engineering Colleges, Quilon and Palghat) for the Graduate Courses in 5 Engineering Colleges. The seats allotted in each course to the different Colleges are shown in the statement I A. During the previous year the sanctioned intake was only 1061. This has been enhanced to 1240. Thus 179 seats have been additionally sanctioned this year and the same has been allotted as 70 each for Civil and Mechanical, 30 for Electrical, 4 for Electronics and 5 for Architecture. The number of seats additionally sanctioned in each College and in each branch are shown in Statement IB and IC.

TABLE-I A

Statement showing the number of seats in 5 Engineering Colleges 1980-81
[Excluding the seats (45) for the Additional courses]

Colleges	Civil	Mech.	Elec.	Electro.	Archi.	Che.	Production-cum-plant	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1. Engineering College, Trivandrum (Govt.)	120	120	80	50	20	..	..	390
2. Engineering College, Trichur. (Govt.)	60	50	50	..	..	50	15	225
3. T. K. M. College of Engineering, Quilon. (Private)	80	80	70	35	..	..	..	265
4. M. A. College of Engineering, Kothamangalam. (Private)	60	60	60	..	..	..	..	180
5. N. S. S. College of Engineering, Palghat. (Private)	60	60	60	..	..	..	..	180
Total	380	370	320	85	20	50	15	1240

TABLE—I B

Statement showing the College-wise intake for the year 1979-80 and 1980-81

Name of College	Intake 1979-80	Intake 1980-81	Additionally sanctioned
(1)	(2)	(3)	(4)
1. Engineering College, Trivandrum (Govt.)	301	390	+ 89
2. Engineering College, Trichur (Govt.)	215	225	+ 10
3. T. K. M. College of Engineering, Quilon	245	265	+ 20
4. M. A. College of Engineering, Kothamangalam (Private)	150	180	+ 30
5. N. S. S. College of Engineering, Palghat (Private)	150	180	+ 30
Total	1061	1240	+179

TABLE—I C

Statement showing the number of seats under each branch for the year 1979-80 and 1980-81

Branches	Seats 1979-80	Seats 1980-81	Seats additionally sanctioned
(1)	(2)	(3)	(4)
Civil Engineering	310	380	+ 70
Mechanical Engineering	300	370	+ 70
Electrical Engineering	290	320	+ 30
Electronics	81	85	+ 4
Architecture	15	20	+ 5
Chemical Engineering	50	50	..
Production-cum-plant Engineering	15	15	..
Total	1061	1240	179

The statements IB and IC given above show the number of seats in each College and each branch for the current year and the previous year. It is seen that the additional seats sanctioned this year is more in Government Colleges than that in Private Colleges. It is seen in statement IC that the seats additionally sanctioned in Civil/Mechanical branches are higher than that of other branch.

Note:—Recently additional courses viz., Instrumentation and Control, Production Engineering and Chemical Engineering with intake capacity of 15 each have been sanctioned in N. S. S. College of Engineering, Palghat, and T. K. M. College of Engineering, Quilon. As the admission of the above courses was made separately by inviting fresh applications, the details of these fresh admissions are considered separately in this review (Part II).

III. Pattern of allocation of seats to candidates

All seats in Government Colleges and 85% seats in Private Colleges are filled up by the Department as per the following pattern:

A. Special Reservation:

- | | |
|-----------------------------------------------------------------------------------------------------------------|----------------------------------------------------|
| 1. Nominees of Government of India | : 22 seats |
| 2. Repatriates of Burmah, Ceylon | : 4 " |
| 3. Children of Ex-servicemen | : 1 " |
| 4. Children of serving defence personnel | : One seat each for Chem., Mech. & Elec. branches. |
| 5. Nominees of Sports Council | : 5 seats |
| 6. Physically handicapped | : 1 seat |
| 7. Seats will also be reserved if necessary to one child/widow of those defence personnel killed during action. | |

B. By Merit

The remaining seats including 50 seats reserved for graduates will be filled on the basis of the following allocation:

(a) State merit	: 50%
(b) Regional merit	: 15% (Malabar & T. C. in the ratio 5:8).

C. Reservation for S. E. B. C.

(1) Ezhava/Thiyya	: 9%	} Considered on the basis of income and marks
(2) Muslim	: 8%	
(3) Latin Catholics	: 2%	
(4) Other backward X'an	: 1%	
(5) Hindu	: 5%	
(6) S. C.	: 8%	
(7) S. T.	: 2%	

IV. Receipt of applications**A. General**

During this academic year the Directorate received 2959 applications, 2514 from Pre-degree candidates and 435 from Graduate candidates for admission to 1240 seats in various undergraduate courses in 5 Engineering Colleges. During the previous year the corresponding number of applicants was 2172 for 1061 seats. In other words number of applicants has increased by 777.

Press releases had been given, giving instructions to candidates on the mode of applying and the marks levels for the various courses during last year. (Related applications are not accounted).

B. District-wise and Region-wise receipt of applications

1. Out of 2949 applications, it was difficult to identify the community and the native District in 35 applications. Hence these 35 applications are considered as unidentified. As it comes only below 1.2% this can be considered as negligible for this review.

2. Applications received from each District are shown in the Statement No. II and Graph I. From the statement it is seen that the number received from Trivandrum District is very high (542) which worked out as 18.38%. Ernakulam stands second (15.43%). In Malabar area the number received from Palghat (150) district is seen high though it is only 5.09% of the State total. In Malabar area, Calicut, stands 2nd, and comparing districts Idukki district ranks last (1.22%). Malappuram stands last in Malabar area. Comparing Malabar and T. C. area 83.85 per cent of applications are from T. C. area.

3. In the case of Pre-degree applicants Trivandrum District stands 1st, Idukki stands last. In Malabar area Palghat stands 1st and Malappuram stands last.

4. With regard to graduate candidates, Trivandrum stands first (20.69%) and Quilon stands second (19.08%). In Malabar area Kozhikode stands 1st and Palghat 2nd. Considering State as a whole Idukki and Malappuram stand last with equal number.

TABLE—II

District-wise number of applications for admission to the B. Sc. Engineering Course for the year 1980-81

Sl. No.	District	Pre-degree applicants		Graduate applicants		Total	
		No.	%	No.	%	No.	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1.	Trivandrum	452	17.97	90	20.69	542	18.38
2.	Quilon	335	13.33	83	19.08	418	14.17
3.	Alleppey	282	11.22	45	10.34	327	11.09
4.	Kottayam	315	12.53	54	12.41	369	12.51
5.	Ernakulam	395	15.72	60	13.80	455	15.43
6.	Idukki	31	1.23	5	1.15	36	1.22
7.	Trichur	275	10.94	51	11.72	326	11.05
	T. C. Area	2085	82.94	388	89.19	2473	83.85
8.	Palghat	138	5.49	12	2.76	150	5.09
9.	Malappuram	54	2.15	5	1.15	59	2.00
10.	Kozhikode	119	4.73	14	3.22	133	4.51
11.	Camnanore	89	3.54	10	2.30	99	3.36
	Malabar Area	400	15.91	41	9.43	441	14.96
	Total Malabar and T. C.	2485	98.85	429	98.62	2914	98.81
	Unidentified	29	1.15	6	1.38	34	1.19
	Total State	2514	100.00	435	100.00	2949	100.00

C. District-wise applicants and their marks in the qualifying examination

1. *Pre-degree Applicants* :—(1) The marks secured by the Pre-degree candidates in Mathematics, Physics and Chemistry put together are considered for admission. The maximum marks is 450. District-wise number of pre-degree applicants in the mark range 400 and above, 350 to 399, 250 to 349 and below 250 is shown in the statement No. III.

(2) In the analysis of candidates, in different mark range, the total number of candidates (pre-degree) excluding the unidentified alone are considered i.e. 2485. In the statement given below it is seen that 19.5% of the applicants are having marks above 400, 35.5% come in the marks range of 350 to 399 and 38% in the marks range of 250 to 349 and remaining 6% come in the range of below 250. Comparing T. C. with Malabar 21.3% of T. C. applicants are in the highest marks range of "400 and above" where as in Malabar the corresponding percentage is 10.2. But the position is seen reversed in the lower marks range. In the lowest marks range of "Below 250". Malabar records 8.5% of the total Malabar applicants in that range, where as the corresponding percentage of T. C. area is only 5.6%.

(3) In regard to the Districts, the candidates having marks in the highest range i.e. 400 and above, Trivandrum District stands first with 129 out of the total 485 applicants and Kottayam stands second with 89 applicants. It is seen that from Malappuram District there are only three applicants in that range. Details are diagrammatically shown in Graph II. On analysing the total applicants of each District and the number included in different marks range it is seen that 28.5 per cent of the applicants of Trivandrum District comes under the highest marks range of "400 and above". In this case Kottayam stands 2nd (28.3%) and Malappuram stands last (5.6%). In the next lower marks range (350-399) 41.6% of the applicants of Kottayam District are having marks 350 and above but below 400. In this respect Trichur stands 2nd (40.4%) Cannanore stands last (30.4%). In the next lower marks range of 250-349, it is seen that 55.5% of the applicants of Malappuram are in that mark range, whereas in Kottayam the corresponding percentage is only 26.4. In the lowest marks range of below 250, 11.2 per cent of the applicants of Cannanore District are having marks below 250.

(4) It is further seen that the largest number of applicants of all District except Alleppey, Kottayam and Idukki are in the marks range of 250 to 349. If we measure the Educational Status with the yardstick of marks 350 it can be seen that more than 50% of the applicants of all District in Malabar area comes below the line and all Districts in T. C. area except Quilon stands above the line of 350. From this it is obvious that a good number of candidates of the above District have chances of getting admission by merit. As the candidates having marks above 400 have a sure chance of getting admission. T. C. area has an advantage over Malabar, with a proportion of 21.3 : 10.2. On a comparison coming between the districts, it can be seen that maximum number of candidates from Trivandrum will get admission to the Engineering Colleges.

2. *Graduate Candidates* :—(1) District-wise number of Graduate applicants in the marks range of 900 and above 800 to 899, 700-799, 600-699 and below 600 are shown in the statement No. IV. The number of candidates excluding those unidentified (6) are only given in this statement i.e. 429 candidates.

(2) From the statement it is seen that out of 429 candidates only 4 candidates have marks above 900. The above 4 candidates belonging to T. C. area itself (i.e.) no candidates from Malabar area with marks above 900 has applied. In the next lower range of 800 to 899 it is seen 67 candidates out of the total of 429, have marks in that range. T. C. area has 15.6 per cent of its candidates in that range while Malabar has 14.7%. In the case of Districts, Kottayam District, has both the highest number (16) and highest percentage in that marks range. In the lowest marks range of "below 600", 55 candidates come under this range. Out of this 55, 8 are from Malabar area and 47 from T. C. area. Eventhough the number of candidates are very low in Malabar, the proportionate percentage is higher than T. C.

TABLE—III

District-wise number of Pre-degree applicants in different marks range

District	Marks 400 & above		350-399		250 to 349		Below 250		Total		
	No.	%	No.	%	No.	%	No.	%	No.	%	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
1. Trivandrum		129	28.5	146	32.3	149	33.0	28	6.2	452	100
2. Quilon		46	13.7	109	32.5	160	47.8	20	6.0	335	100
3. Alleppey		74	26.2	103	36.5	91	32.3	14	5.0	282	100
4. Kottayam		89	28.3	131	41.6	83	26.4	12	3.8	315	100
5. Ernakulam		71	17.0	144	36.5	160	40.5	20	5.0	395	100
6. Idukki		8	25.8	10	32.2	9	29.1	4	2.0	31	100
7. Trichur		27	9.8	111	40.4	119	43.3	18	6.5	275	100
8. T. C.		444	21.3	754	36.1	771	37.0	116	5.6	2085	100
9. Palghat		18	13.0	45	32.6	61	44.2	14	10.2	138	100
10. Malappuram		3	5.6	17	31.5	30	55.5	4	7.4	54	100
11. Kozhikode		10	8.4	39	32.8	64	53.8	6	5.0	119	100
12. Cannanore		10	11.2	27	30.4	42	47.2	10	11.2	89	100
Malabar		41	10.2	126	32.0	197	49.3	34	8.5	400	100
Total T. C. & Malabar		485	19.5	882	35.5	968	38.0	150	6.0	2485	100

TABLE—IV
District-wise number of Graduate applicants in different marks range

	Marks 900 and above		800-899		700-799		600-699		Below 600		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1. Trivandrum	1	1.1	9	10.0	41	45.6	31	34.4	8	8.9	90	100.00
2. Quilon	..	..	8	9.6	28	33.7	32	38.6	15	18.1	83	100.00
3. Alleppey	..	..	5	11.1	22	48.9	12	26.7	6	13.3	45	100.00
4. Kottayam	1	1.9	16	29.6	22	40.7	10	18.5	5	9.3	54	100.00
5. Ernakulam	2	3.3	10	16.7	23	38.3	16	26.7	9	15.0	60	100.00
6. Idukki	..	..	1	20.0	2	40.0	1	20.0	1	20.0	5	100.00
7. Trichur	..	..	12	23.5	21	41.2	15	29.4	3	5.9	51	100.00
T. C. Area	4	1.2	61	15.6	159	41.0	117	30.1	47	12.1	388	100.00
8. Palghat	..	..	1	8.3	7	58.3	2	16.7	2	16.7	12	100.00
9. Malappuram	..	..	1	20.0	..	..	2	40.0	2	40.0	5	100.00
10. Kozhikode	..	..	3	21.4	7	50.4	2	14.3	2	14.3	14	100.00
11. Cannanore	..	..	1	10.0	5	50.0	2	20.0	2	20.0	10	100.00
Malabar Area	..	..	6	14.7	19	46.3	8	19.5	8	19.5	41	100.00
Total T. C. & Malabar	4	09	67	15.5	178	41.5	125	29.2	55	12.9	429	100.00

V. Applications from different communities

A. General :

(1) In the matters of admission in Technical Institutions, community is broadly classified as forward community, socially and educationally Backward Classes and Scheduled Castes and Scheduled Tribes. The Socially and Educationally Backward Class candidates are those coming under the purview of G.O. (P) 208/66/Edn. dated 2-5-1966. The candidates belong to Ezhava/Thiyya, Muslim, Latin Catholics, other Backward Hindus, and other Backward X'ans, the income of whose parents are above the level specified in the above G. O. are not considered as socially and educationally backward, and consequently they are treated as forward. Hence the number of forward community candidates given in the statement include not only the forward class community but also the candidates belonging to Ezhava, Muslim, etc. the total income of whose family is above the stipulated amount. Similarly the number shown against Ezhava, Muslim, etc. are those of candidates who are Socially and Educationally backward as per Government order. Hence actual number of candidates belonging to that communities may be higher than that shown against that community. It is a difficult task to collect the actual community-wise number because those candidates whose family income is above the stipulated amount, have not cared to specify their caste in the application form.

(2) The community-wise number of applications received for admission to B. Sc. Engineering course is shown in statement (V). As the number shown against forward community is comparatively large there is no relevance in comparing the same with the number of socially and educationally backward community candidates. Among the socially and educationally backward communities the largest number of applications received are from Ezhava/Thiyya community both from Pre-degree candidates and Graduate candidates. The total number received from Muslim and other backward communities are more or less equal with small differences. The number of Pre-degree candidates belonging to other backward Hindus are higher than Muslim. But in the case of graduates the number of Muslim applicants are greater than that of other backward Hindus.

(3) It is seen that there are only 60 scheduled caste candidates and 5 scheduled tribes applicants. Out of this 60 Scheduled Caste candidates, 4 candidates are Graduates and the remaining 56 Pre-degree candidates. All 5 S. T. applicants are Pre-degree candidates. As 10 per cent of the seats is reserved for SC/ST, the number of candidates applied is less than the number of seats reserved for them.

TABLE—V

Community-wise number of applications for admission to the B. Sc. Engineering course 1980-81

Community	Pre-degree applicants		Graduate applicants		Total	
	No.	%	No.	%	No.	%
1. Forward community	2058	82.26	344	79.08	2402	81.45
2. Ezhava	173	6.88	44	10.11	217	7.36
3. Muslim	76	3.02	21	4.83	97	3.29
4. Latin Catholic	21	0.83	7	1.61	28	0.95
5. Other Backward Hindu	87	3.46	9	2.07	96	3.26
6. Other backward X'an	9	0.36	..	..	9	0.30
7. Scheduled Caste	56	2.23	4	0.92	60	2.03
8. Scheduled Tribes	5	0.20	..	..	5	0.17
Total	2485	99.24	429	98.62	2914	98.81
Unidentified	29	0.76	6	1.38	35	1.19
State Total	2514	100.00	435	100.00	2949	100.00

4B—1. Community-wise number of candidates and their marks in the qualifying examination.

1. *Pre-degree candidates* :—(i) Community-wise number of Pre-degree applicants according to different marks range 400 and above, 350 to 399, 300 to 349, 250 to 299 and below 250 are shown in the statement VI given below. The table shows that out of 2485 applicants excluding those unidentified, 485 come under the marks range of 400 and above, which works out as 19.5 per cent. (The candidates having marks above 400 have a sure chance of getting admission by merit).

(ii) In the case of lowest marks range below 250, it is seen that only 6.1% applicants come in this range. Forward community has only 3.3% applicants in this range. It is seen that 71.4% of the SC applicants are in the marks range of below 250. 6% of the S. T. applicants are also in the marks range.

(iii) It is further seen that proportionately large number of candidates belonging to forward community (38.5%) and other backward X'an (33.4%) are in the marks range of 350 to 399, Ezhava (48%), Latin Catholics (38.1%) are in the marks range of 300 to 349, Muslim (28.9%) and other backward X'ans are in the marks range of 250 to 299 and scheduled caste (71.4%) and scheduled tribes (60%) are in lowest marks of below 250.

4 E1—4. The community-wise number of candidates in marks ranges of lesser interval is shown in statement No. VI. The same distribution of applicants separately for T. C. and Malabar are shown in statements (VI B C)

TABLE—VI

Community-wise number of Pre-degree applicants according to marks

Community	Marks 400 & above		340-399		300-349		250-299		Below 250		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Forward Community	463	22.5	792	38.5	556	27.0	180	8.7	67	3.3	2058	100
Ezhava/Thiyya	8	4.6	44	25.4	83	48.0	23	193	15	8.7	173	100
Muslim	2	2.6	16	21.1	21	27.6	22	28.9	15	19.8	76	100
Latin Catholic	1	4.8	5	23.8	8	38.1	6	28.5	1	4.8	21	100
Other backward Hindu	8	9.2	20	23.0	24	27.6	27	31.0	8	9.2	87	100
Other backward X'ian	1	11.1	3	33.4	2	22.2	2	22.2	1	11.1	9	100
Scheduled Castes	1	1.8	2	3.6	2	3.6	11	19.6	40	71.4	56	100
Scheduled Tribes	1	20.00	..	..	..	..	1	20.00	3	60.0	5	100
Total	485	19.5	882	38.5	696	28.0	272	10.9	150	6.1	2485	100

TABLE—VI A

Statement showing the receipt of application from Pre-degree candidates according to the marks and caste—A State

Community Marks	Forward	Ezhava	Muslim	L.C.	O.B.H.	O.B.C.	SC	S.T.	Total
440 and above	44	..	..	..	1	..	..	..	45
459 to 430	61	1	..	..	1	..	..	..	63
429 to 420	107	1	..	..	2	..	..	..	110
419 to 410	115	4	..	..	1	..	..	1	121
409 to 400	136	2	2	1	3	1	..	..	146
Total above 400	463	8	2	1	8	1	..	1	485
399 to 390	165	7	1	1	2	..	..	..	176
389 " 380	136	10	1	2	3	1	1	..	154
379 " 370	160	10	1	2	6	..	..	..	179
369 " 360	167	9	8	..	4	1	1	..	190
359 " 350	164	8	5	..	5	1	..	..	183
Total 350 to 399	792	44	16	5	20	3	2	..	882
349 to 340	142	19	3	1	6	..	..	..	171
339 " 330	128	16	6	3	5	2	..	..	160
329 " 320	112	18	6	..	8	..	1	..	145
319 " 310	98	15	..	2	4	..	..	..	119
309 " 300	76	15	6	2	1	..	1	..	101
Total 300 to 349	556	83	21	8	24	2	2	..	696
299 to 290	55	8	6	1	9	..	..	..	79
289 " 280	41	6	4	2	4	..	..	1	58
279 " 270	32	3	3	..	6	1	3	..	48
269 " 260	28	4	4	1	3	1	1	..	42
259 " 250	24	2	5	2	5	..	7	..	45
Total 250 to 299	180	23	22	6	27	2	11	1	272
Below 250	67	15	15	1	8	1	40	3	150
Total	2058	173	76	21	87	9	56	5	2485

TABLE—VI B

Statement showing the receipt of applicants from Pre-degree candidates of T. C. Area according to marks and caste

Community Marks	Forward	Ezhava	Muslim	Latin Catholic	O.B.H.	O.B.C.	S.C.	S.T.	Total
400 and above	43	..	..	..	1	..	..	..	44
439 to 430	58	1	..	..	1	..	..	..	60
429 ,, 420	102	1	..	..	2	..	..	..	105
419 ,, 410	108	3	..	..	1	..	1	..	113
409 ,, 400	116	2	1	1	1	..	..	1	122
Total above 400	427	7	1	1	6	..	1	1	444
399 to 390	148	7	1	1	2	..	..	..	159
389 ,, 380	119	9	1	2	2	1	1	..	135
379 ,, 370	136	9	1	2	4	..	..	..	152
369 ,, 360	141	8	6	..	3	1	1	..	160
359 ,, 350	132	8	5	..	2	1	..	..	148
Total 350 to 399	676	41	14	5	13	3	2	..	754
349 to 340	116	12	1	1	3	..	..	..	133
339 ,, 330	103	11	2	3	2	2	..	..	123
329 ,, 320	92	16	5	..	8	..	1	..	122
319 ,, 310	79	12	..	2	2	..	..	..	95
309 ,, 300	60	14	5	2	1	..	1	..	83
Total 300 to 349	450	65	13	8	16	2	2	..	556
299 to 290	40	6	5	1	8	..	..	..	60
289 ,, 280	29	4	2	2	4	..	..	1	42
279 ,, 270	24	3	2	..	6	1	3	..	39
269 ,, 260	23	3	3	1	3	1	1	..	35
259 ,, 250	20	2	4	2	4	..	7	..	39
Total 250 to 299	136	18	16	6	25	2	11	1	215
Below 250	46	13	10	1	8	1	35	2	116
Total	1735	144	54	21	68	8	51	4	2085

TABLE—VI C

Statement showing the receipt of applications from Pre-Degree candidates of Malabar Area—according to marks and caste

Community Marks	Forward	Ezhava	Muslim	L.C.	O.B.H.	O.B.C.	S.C.	S.T.	Total
440 and above	1	..	..	..	..	..	..	..	1
439 to 430	3	..	..	..	..	..	..	..	3
429 ,, 420	5	..	..	..	..	..	..	..	5
419 ,, 410	7	1	..	..	..	..	..	..	8
409 ,, 400	20	..	1	..	2	1	..	..	24
Total above 400	36	1	1	..	2	1	..	..	41
399 to 390	17	..	..	..	..	..	..	..	17
389 ,, 380	17	1	..	..	1	..	..	..	19
379 ,, 370	24	1	..	..	2	..	..	..	27
369 ,, 360	26	1	2	..	1	..	..	..	30
359 ,, 350	32	..	..	..	3	..	..	..	35
Total 350 to 399	116	3	2	..	7	..	..	..	128
349 to 340	26	7	2	..	3	..	..	..	38
339 ,, 330	25	5	4	..	3	..	..	..	37
329 ,, 320	20	2	1	..	..	..	..	..	23
319 ,, 310	19	3	..	..	2	..	..	..	24
309 ,, 300	16	1	1	..	..	..	..	..	18
Total 300 to 349	106	18	8	..	8	..	..	..	140
299 to 290	13	2	1	..	1	..	..	..	19
289 ,, 280	12	2	2	..	..	..	..	..	16
279 ,, 270	8	..	1	..	..	..	..	..	9
269 ,, 260	5	1	1	..	..	..	..	..	7
259 ,, 250	4	..	1	1	1	..	..	..	6
Total 250 to 299	44	5	6	2	..	..	..	..	57
Below 250	21	2	5	..	..	..	5	1	34
Total	323	29	22	..	19	1	5	1	400

2. Graduate applicants

(i) Community-wise number of graduate applications according to marks range 900 and above, 800-899, 700-799, 600-699 and below 600 are shown in the statement No. VII. Out of 429 applicants excluding those unidentified only 4 candidates have marks above 900 and they belong to forward community. In the next lower range of 800 to 899 besides the 65 applicants from forward community two candidates from Ezhava Community are included. In the next two subsequent lower marks ranges i.e. 700-799 and 600 to 699, all communities except other backward X'ian and scheduled castes and tribes have been included. But in the lower marks range of below 600 all except backward X'ian and Scheduled tribes have been included.

(ii) It is seen that largest number of applicants from forward community and Latin catholics are in the marks range of 700 to 799. Ezhava, Muslim and other backward Hindus are in the mark range of 600 to 699 and all the scheduled caste candidates are in the lowest marks range of below 600.

(iii) Community-wise number of Graduate applicants in the mark range of lesser interval is shown in the Statement VIII. The Tables (IX A & B) show the above distribution of candidates in the T.C. area and Malabar area separately.

TABLE—VII

Community-wise number of graduate applicants according to marks range

Sl. No.	Community	Marks					Total
		900 & above	800-899	700-799	600-699	Below 600	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Forward Community	4	65	149	92	34	344
	Ezhava/Thiyya	..	2	17	18	7	44
	Muslim	..	..	6	8	7	21
	Latin Catholics	..	..	3	2	2	7
	Other Backward Hindu	..	..	3	5	1	9
	Other Backward X'ian	..	..	..	..	..	..
	Scheduled Castes	..	..	..	..	4	4
	Scheduled Tribes	..	..	..	..	..	..
	Total	4	67	178	125	55	429

TABLE—VIII

Statement showing the receipt of applications from Graduate candidate according to marks and caste

Marks	Community								Total	
	Forward	Ezhava	Muslim	L.C.	O.B.H.	O.B. X'ian	S.C./S.T.			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
900 and above	4	..	..	..	..	..	..	..	..	4
850 to 899	17	..	..	..	..	..	..	..	..	17
800 to 849	48	2	..	..	..	..	..	..	..	50
Total above 800	69	2	..	..	..	..	..	..	..	71
750 to 799	83	13	4	3	2	..	..	..	..	105
700 to 749	66	4	2	..	1	..	..	..	..	73
Total 700 to 799	149	17	6	3	3	..	..	..	..	178
650 to 699	49	8	4	2	3	..	..	..	..	66
600 to 649	43	10	4	..	2	..	..	..	..	59
Total 600 to 699	92	18	8	2	5	..	..	..	..	125
Below 600	34	7	7	2	1	..	..	4	..	55
Total	344	44	21	7	9	..	..	4	..	429

TABLE—IX

Statement showing the receipt of application from graduate candidates of (A) T. C. area and (B) Malabar area—According to marks and community

Marks	Community							Total
	Forward	Ezhava	Muslim	L. C.	O. B. H.	O.B. X'ian	S.C./S.T.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(A) T.C.								
900 & above	4	..	..	..	..	..	..	4
850 to 899	15	..	..	..	..	..	..	15
800 to 849	44	2	..	..	..	..	..	46
Total above 800	63	2	..	..	..	..	..	65
750 to 799	75	12	3	3	1	..	..	94
700 to 749	58	4	2	..	1	..	..	65
Total 700 to 799	133	16	5	3	2	..	..	159
650 to 699	45	8	4	2	3	..	..	62
600 to 649	40	9	4	..	2	..	..	55
Total 600 to 699	87	17	8	2	4	..	..	117
Below 600	28	6	6	2	1	..	4	47
Total	309	41	19	7	7	..	4	388
(B) Malabar								
900 and above	..	..	..	..	..	..	..	..
850 to 899	2	..	..	..	..	..	..	2
800 to 849	4	..	..	..	..	..	..	4
Total 800 and above	6	..	..	..	..	..	..	6
750 to 799	8	1	1	..	1	..	..	11
700 to 749	8	..	..	..	..	..	..	8
Total 700 to 799	16	1	1	..	1	..	..	19
650 to 699	4	..	..	..	..	..	..	4
600 to 649	3	1	..	..	..	..	..	4
Total 600 to 699	7	1	..	..	..	..	..	8
Below 600	6	1	1	..	..	..	..	8
Total	35	3	2	..	1	..	..	41

VI. Applicants and their preference

1. The number of Pre-degree applicants having marks above 350 and graduate applicants having marks above 800 and with the subject they preferred 1st are shown in the statement X given below. The preference given by the applicants is an indication of (1) the demand for each course based on the current employment potential and (2) student's own judgement and aptitude regarding the maximum use that can be derived from that subject, in his professional career. However the real choice of an applicant cannot be assessed because even though an applicant likes to choose a subject, as his 1st choice, he may choose other subject as his first choice, due to poor confidence of getting the former subject. Those applicants who have a good confidence of getting the subject may choose that subject. Hence the real significance of the aspects of preference can be assessed by renewing the preference of the candidates who are standing the top in their marks.

2. In the Table it is seen that out of 485 Pre-degree candidates having marks above 400, 341 have preferred Electronics i.e. 70.3 per cent. Second place goes to Mechanical branch. 61 candidates have stated their 1st choice as Mechanical branch. In the lower mark ranges, candidates, preference, of choice shifts from Electronics to Civil. Out of 882 candidates having marks between 350 and 399. 256 have preferred Electronics whereas 271 applicants have recorded their 1st choice as Civil Engineering for Mechanical branch, only 182 have shown their 1st choice. If all the 1367 candidates having marks above 350 are taken, it can be seen that 597 (43.67%) candidates preferred Electronics, though there were only 85 seats for it. Civil branch stands 2nd. 320 applicants have stated their 1st choice as Civil branch.

3. It is also seen that as the marks range increases, their preference to Electronics increases compared to the preference for Civil branch. This shows that the applicants whose marks are in the highest range have good confidence in getting Electronics and thereby state their 1st preference to Electronics. Further there is a low preference to Electrical branch among the traditional subjects.

4. The above mentioned phenomena is seen both for the Pre-degree candidates and graduate candidates.

5. The analysis of Pre-degree candidates of T. C. and Malabar area with their preference is shown in the statement No. XA. In this analysis, candidates having marks above 400, and those above 350 and below 400, are considered. We may limit the comparison with the important traditional branches viz. Civil, Mechanical, Electrical and the most desired in subject Electronics.

6. In the case of candidates having marks above 400, 70.31 per cent preferred Electronics whereas 5.57% preferred Electrical Engineering. It is also seen that in the T. C. area 71.61% candidates preferred Electronics. But the corresponding percentage of Malabar candidates is only 56.1%. But in the Electrical branch though 19.51 per cent of the Malabar candidates preferred it, for T. C. candidates the corresponding percentage is only 4.27%. With regard to the candidates having marks above 350 but below 400 it is seen that the Civil branch (30.73%) is preferred by more students than those preferring Electronics (29.02%).

7. It is also seen that the choice of preference of T. C. candidates and Malabar candidates varies very much in Civil and Electrical branches.

8. Considering the above two ranges into one i.e. All above 350, it is seen that 43.67 per cent of the candidates chose Electronics as their 1st choice, 23.41% of the candidates chose Civil as their 1st choice. But only 10.53 per cent candidates have chosen Electrical branch as their 1st choice. One peculiarity seen in this context is that proportionately more candidates of Malabar area chose Electrical branch as their 1st choice.

9. The statement No. XI gives the candidates of different mark ranges and their preference, separately for T. C. and Malabar area.

10. Preference of Pre-degree applicants having marks above 400, above 350 but below 400, and all above 350 are diagrammatically shown in graph No. 3.

TABLE X

Statement showing the number of Pre-degree candidates having marks above 350 and graduates having marks above 800 with the subject 1st preferred, 1st preference

Marks	Civil	Mechanical	Electrical	Arch.	Electronics	Chem. Engg.	Production cum-plant Engg.	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
<i>Pre-Degree applicant:</i>								
440 and above	2	3	..	..	40	..	..	45
430 to 439	3	1	1	1	57	..	..	63
420 to 429	11	12	6	1	79	1	..	110
410 to 419	14	14	5	1	86	..	1	121
400 to 409	19	31	15	1	79	..	1	146
Total above 400	49	61	27	4	341	1	2	485
390 to 399	36	45	21	1	67	6	..	176
380 to 389	40	33	21	2	54	3	1	154
370 to 379	61	31	25	4	47	10	1	179
360 to 369	68	35	24	7	49	5	1	190
350 to 359	66	37	26	9	39	5	1	183
Total: 350 to 399	271	182	117	23	256	29	4	882
Total above 350	320	243	144	27	597	30	6	1367
<i>Graduate applicant:</i>								
Marks above 900	..	1	1	..	2	..	..	4
850 to 899	1	1	1	..	12	1	1	17
800 to 849	8	5	4	..	31	1	1	50
Total above 800	9	7	6	..	45	2	2	71

TABLE XA

Statement showing the analysis of subject preferred by the Pre-degree applicants having marks above 350.

Subject of 1st choice	Region	Marks above 400		Marks above 350 & below 400		Marks above 350	
		No.	%	No.	%	No.	%
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1. Civil	T. C.	48	10.85	247	32.76	295	24.62
	Malabar	1	2.44	24	18.75	25	14.79
	State	49	10.10	271	30.73	320	23.41
2. Mechanical	T. C.	53	11.93	158	20.96	211	17.61
	Malabar	8	19.51	24	18.75	32	18.93
	State	61	12.58	182	20.63	243	17.78
3. Electrical	T. C.	19	4.27	89	11.80	108	9.02
	Malabar	8	19.51	28	21.88	36	21.30
	State	27	5.57	117	13.27	144	10.53
4. Architecture	T. C.	3	0.67	15	1.99	18	1.50
	Malabar	1	2.44	8	6.25	9	5.32
	State	4	0.81	23	2.61	27	1.98
5. Electronics	T. C.	318	71.61	222	29.44	540	45.08
	Malabar	23	56.10	841	26.56	57	33.73
	State	341	70.31	256	29.02	597	43.67
6. Chemical Engg.	T. C.	1	0.22	19	2.52	20	1.67
	Malabar	..	..	10	7.81	10	5.92
	State	1	0.21	29	3.27	30	2.19
7. Production Cum-plant Engineering	T. C.	2	0.45	4	0.53	6	0.50
	Malabar	..	..	..	..	..	..
	State	2	0.42	4	0.45	6	0.44
	T. C.	444	100.00	754	100.00	1198	100.00
	Malabar	41	100.00	128	100.00	169	100.00
	State	485	100.00	882	100.00	1367	100.00

TABLE XI

Statement showing the region-wise (T.C. and Malabar) number of Pre-degree applicants having marks above 350 and graduate applicants having marks above 800 with the subject, first preferred

	T. C.							Malabar							Total
	Civil	Mechanical	Electrical	Architecture	Electronics	Chemical	P. P. Engg.	Civil	Mechanical	Electrical	Architecture	Electronics	Chemical	P. P. Engg.	
<i>Pre-degree Candidates</i>															
440 & above	2	3	..	..	39	..	..	44	..	..	..	1	..	..	1
430-439	3	1	1	1	54	..	..	60	..	..	..	3	..	..	3
420-429	11	10	6	..	77	1	..	105	..	..	..	7	..	..	5
410-419	14	13	5	1	79	..	1	113	2	..	1	2	..	..	8
400-409	18	26	7	1	69	..	1	122	1	5	..	7	..	..	24
Above 400	48	53	19	3	318	1	2	444	1	8	8	23	..	..	41
390-399	32	41	19	1	61	5	..	159	4	4	2	6	1	..	17
380-389	35	31	18	2	47	1	1	135	5	2	3	7	2	..	19
370-379	57	27	20	3	37	7	1	152	4	4	5	10	3	..	27
360-369	63	30	16	4	43	3	1	160	5	6	8	6	2	..	30
350-359	60	29	16	5	34	3	1	140	6	8	3	5	2	..	35
350-399	247	158	89	15	222	19	4	754	24	24	28	34	10	..	128
Above 350	295	211	108	18	540	20	6	1198	25	32	35	57	10	..	169
<i>Graduate Candidates</i>															
Above 900	..	1	1	..	2	..	..	4	..	..	..	..	..	..	..
850-899	1	..	..	..	12	1	1	15	..	1	..	..	..	..	2
800-849	7	4	3	..	30	1	1	46	1	1	1	1	..	..	4
Total above 800	8	5	4	..	44	2	2	65	1	2	2	1	..	..	6

VII. Selection and admission

1. *General*: (i) Out of the total 1240 seats 93 seats have been earmarked as Management quota. The selection has been made only for the remaining 1147 seats according to merit and reservation principle. As the admission is being given to the graduate candidates also, 50 seats have been earmarked for the graduate candidates. The statement XII given below shows the number of seats under each branch and its break up according to the seat allotted to the management, graduate candidates and Pre-degree candidates.

(ii) The first selection list was prepared and presented to the Selection Committee on 29-7-1980 and after approval the same was published. Selection memos were sent to the candidates and the Colleges concerned. As certain candidates failed to join within the stipulated time, subsequent lists were prepared after ascertaining the vacancies in each branch and each Colleges. Since fresh lists are prepared on each such occasion the mark level in the merit quota will come down. Consequently, the candidates selected under reservation quota, will automatically come under merit quota, which will necessitate fresh selection under reservation quota. Similar process has been effected in branch-wise selection also. So a mere totalling of the selection list will not give the correct and clear picture of the actual admission. However in taking into account the above aspects also a more or less correct position of the admission is computed and shown in the statement, given below.

(iii) This statement XII shows the number selected on merit, (State merit, T. C. merit and Malabar merit combined together). Community reservation and special reservation under each branch. The number shown against merit include the seat filled up by the candidates under Government of India's quota also.

2. *Selection of Pre-degree Candidates*: It is seen that out of 1097 in Pre-degree quota 302 candidates eligible for community reservation were benefited, while some other eligible candidates having top marks have been selected under merit quota. Details are shown in statements No. XIII and XIV. It is seen that all candidates belonging to Muslim, Latin Catholics, Other Backward Christian and Scheduled Castes and Scheduled Tribes who had submitted valid applications have been given admission. It is a fact that the number of applications received from Scheduled Caste and Scheduled Tribe candidates are considerably less than the number of seats reserved for them.

3. *Selection of Graduate Candidates*: The details of admission given to the graduate candidates are shown in statement No. XV. It is seen that out of the total of 50 candidates admitted in various branches 18 were from the communities eligible for reservation i.e. 5 each from Ezhava and Muslim communities 3 from O. B. H. and one from L. C. All the 4 candidates belonging to Scheduled Caste/Scheduled Tribe have got admission.

TABLE XII
Distribution of seats under each Branch

	Total seat	Management quota	Balance	Graduate quota	Pre-degree quota
Civil	380	30	350	11	339
Mechanical	370	30	340	10	330
Electrical	320	28	292	11	281
Electronics	85	5	80	8	72
Architecture	20	..	20	1	19
Chemical	50	..	50	9	41
Production	15	..	15	..	15
Total	1240	93	1147	50	1097

TABLE XIII

Statement showing the selection for Admission of the Pre-degree candidates according to merit and Reservation under each branch

	Civil	Mechanical	Electrical	Electronics	Architecture	Chemical	Production	Total
Merit State & T.C. Merit and Malabar	239	243	199	49	14	29	11	783
Ezhava/Thiyya	27	26	25	4	1	4	1	90
Muslim	23	22	20	1	1	3	1	74
Latin Catholics	6	5	5	1	1	1	1	20
Other Backward Hindus	17	15	12	3	1	2	1	51
Other Backward Christian	2	2	1	2	..	1	..	8
Scheduled Caste	20	13	16	5	1	..	..	55
Scheduled Tribes	2	..	1	1	..	..	..	4
Total community Recruitment	97	83	80	22	5	11	4	302
Son of Ex-service men	..	1	..	..	..	..	..	1
Son of Defence men	1	1	1	..	..	..	..	3
Re-patriates from Ceylon	..	1	..	..	..	..	..	1
Nominees of Sports Council	1	1	..	1	..	1	..	4
Physically Handicapped	1	..	1	..	..	..	..	2
Special Recruitment Total	3	4	2	1	..	1	..	12
Total*	339	330	281	72	19	41	15	1097

* Including the seats filled up under Government of India quota and other State quota.

TABLE XIV

Statement showing the approximate number of Pre-degree candidates selected from eligible backward communities and SC/ST under state merit

Community	Total No. of applicants	Selected under state merit
Ezhava	173	35
Muslim	76	5
Latin Catholics	21	6
O. B. H.	87	19
O. B. C.	9	2
S. C.	56	1
S. T.	5	1

TABLE XV

Statement showing the selection for admission of Degree candidates in different branches according to merit and community reservation

	Civil	Mechanical	Electrical	Electronics	Architecture	Chemical	Total
Merit	7	8	6	5	1	5	32
<i>Community reservation</i>							
Ezhava	1	..	2	1	..	1	5
Muslim	1	1	1	1	5	1	5
Latin Catholic	..	..	..	..	..	1	1
Scheduled Caste	1	1	1	..	..	1	4
O. B. H.	1	..	1	1	..	..	3
Total community reservation	4	2	5	3	..	4	18
Total	11	10	11	8	1	9	50

VIII. Availability of seats, admission and reference of candidates

The statement No. XVI shows the number of seats available under each branch, selection and actual admission made, and the preference of candidates, who have marks above average i. e. 350 and above in the case of Pre-degree applicants and 800 and above in the case of graduate applicants. This statement reveals the fact that large number of candidates prefer Electronics i. e. 597 out of 1357, Pre-degree candidates and 45 out of 71 graduate have preferred Electronics where as the allotted seats in that branch was only 85. As the seats are comparatively limited most of the remaining candidates were admitted in other branches according to their subsequent choices.

As regards the conventional subjects, demand for Civil Engineering is greater and that of Electrical Engineering is lesser. It is seen that the No. of candidates who preferred Electrical Engineering is less than half of the number of seats available in that branch.

The seats available for each branch and the number of Pre-degree candidates (Having marks above 350) preferred the respective branches are diagrammatically shown in the attached graph (4).

TABLE—XVI

Statement showing the availability of seats selection and admission in each branch and preference of candidates

	Branches							Total
	Civil	Mech.	Elec.	Electro.	Archite.	Chem.	Produ. cum-plant Engg.	
(a) Allocation of Seats								
1. Management quota	30	30	28	5	..	..	..	93
2. Department quota including special reservation								
	339	330	281	72	19	41	15	1097
	11	10	11	8	1	9	..	50
Total 380 seats	380	370	320	85	20	50	15	1240
(b) Selected for admission according sanctioned intake.	380	370	320	85	20	50	15	1240
(c) Actual admission	383	375	312	87	21	48	14	1240
(d) Subject preferred by								
i. Pre-degree candidates having mark above 350	320	243	144	597	27	30	6	1367
ii. Degree candidates having marks above 800	9	7	6	45	..	2	2	71

IX. Findings

This review reveals the following facts:

1. The applicants belonging to SC/ST communities are lesser than their reserved quota. Even though this dearth of SC/ST continue this year also, a slight progress can be seen. Last year the number was only 55, whereas this year it increased to 65.
2. Comparatively large number of applicants are from Trivandrum District and further the large number of Pre-degree candidates having top marks (above 400) are from Trivandrum District.
3. Demand for electronics is greater especially by the candidates who have top marks in their qualifying examination.
4. Comparatively a good number of candidates from Exhava, backward Hindus whose income was within the prescribed limit got admission under State merit.

PART II

ADMISSION OF CANDIDATES IN THE NEWLY SANCTIONED ADDITIONAL COURSES—
INSTRUMENTATION AND CONTROL SYSTEM, PRODUCTION ENGINEERING
AND CHEMICAL ENGINEERING—1980-81

1. General

During the year under report Government have accorded sanction for starting additional courses leading to B Sc, Engineering degree in Instrumentation and Control in N.S.S. College of Engineering, Palghat (Private), Production Engineering and Chemical Engineering in T. K. M. College of Engineering, Quilon with an initial intake of 15 seats for each course (Total 45). As these courses are started in 2 Private Engineering Colleges, 2 seats of each course (6 seats) are reserved under management quota.

2. Receipt of Applications

A. General

Since these courses are additional courses fresh applications were invited for the same. It is found that 389 candidates had sent their applications. Out of these 389 applications 363 were registered in the rank list omitting those which are bifated, defective and incomplete etc. The analysis of the receipt of 363 applications are shown in the following sections and tables:

B. District-wise receipt of application and marks.

District-wise number of applications according to various marks range viz. Marks above 400, between 350-399, 300-349, 250-299 and below 250 are shown in the Table XVII. It is seen that 88.7 per cent of the total 363 applications are from T. C. area. In the case of Districts, Quilon stands first with a

percentage of 24.79% and Malappuram stands last with a percentage of only 0.27. Considering the marks ranges, the maximum numbers are in the marks range 350-399 (174) and the minimum numbers are in the marks range above 400 (17). Out of the 17 applicants who have marks above 400, 4 are (23.53%) are from Palghat and nil from Idukki and Malappuram District. In the next lower range of 350-399, applicants from Quilon are maximum (38) which is worked out as 21.84%. In the next lower range of 300-349, also Quilon stands first (30.0%). But in the marks range of 250-299, the applicants from Trivandrum are maximum, and Quilon stands second. In the lowest marks range of below 250, the number of applicants from Trivandrum is also seen maximum.

TABLE XVII

District-wise number of application in different marks ranges (Excluding belated and unconsidered)

District	Marks above		400		350-399		300-349		250-299		Below 250		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Trivandrum	3	17.65	34	19.54	20	20.00	15	33.33	7	25.93	79	21.76		
Quilon	3	17.65	38	21.84	30	30.00	13	28.89	6	22.22	90	24.79		
Alleppey	2	11.76	21	12.07	11	11.00	4	8.89	6	22.22	44	12.12		
Kottayam	1	5.88	27	15.52	9	9.00	3	6.67	2	7.41	42	11.57		
Ernakulam	1	5.88	23	13.21	12	12.00	1	2.22	3	11.11	40	11.02		
Idukki	..	..	1	0.57	1	1.00	..	..	..	..	2	0.55		
Trichur	2	11.76	14	8.04	6	6.00	2	4.44	1	3.70	25	6.89		
Total TC	12	70.59	158	90.80	89	89.00	38	84.44	25	92.59	322	88.70		
Palghat	4	23.53	8	4.60	5	5.00	4	8.89	..	..	21	5.79		
Malappuram	..	..	..	..	1	1.00	..	..	..	..	1	0.27		
Kozhikode	1	5.88	7	4.02	4	4.00	2	4.44	2	7.41	16	4.41		
Cannanore	..	..	1	0.58	1	1.00	1	2.22	..	..	3	0.83		
Total Malabar	5	29.41	16	9.10	11	11.00	7	15.56	2	7.41	41	11.30		
Total	17	100	174	100	100	100.00	45	100.00	27	100.00	363	100.00		

Note:—Total number of applications received 389.

Belated; unidentified and defective applications (26) are excluded.

C. Receipt of applications from candidates belonging to different Communities and marks

1. *General*:—The tables XVIII and XIX show first the number of candidates having marks in the ranges and 400 above 350 to 399, 300 to 349, 250 to 299 and below 250, with their communities in which they actually belong, second by the Community in which they are included for selection and finally Table XX shows the comparative picture of the number of candidates actually belonging to a particular community and the number considered to be belonged in that communities.

2. *Applicants and their actual Community*:—Table XVIII shows that out of 363 applicants 251 are from the forward communities which is worked out as 69.1%. Among the other applicants from other communities Ezhava has the largest number (65) which is more than twice that of Muslim candidates. The lowest number is seen from Latin communities (4). Among the forward communities Nairs stand first and Brahmin stands last. No candidates from OB X'ian has applied. In the case of candidates having marks above 400, 5 out of 17 belongs to Brahmin Community which is one less than Nair applicants.

TABLE XVIII

Number of applications received from candidates of Different Community in which they actually belong with their marks.

(1)	Forward					Total	Ezhava	Muslim	Latin Catholic	O. B. H.	S. C.	Total
	Brahmin	Nair	Other forward Hindus	X'ian	Total							
400 and above	5	6	2	3	16	1	..	..	..	..	..	17
350 to 399	20	52	17	63	152	14	14	1	3	..	..	174
300 to 349	5	28	12	20	65	29	..	1	5	..	..	100
350 to 299	..	11	5	..	16	18	6	..	4	1	..	45
Below 250	..	1	..	1	2	3	17	1	1	3	..	27
Total	30	98	36	87	251	65	27	3	13	4	..	363

It is seen that no candidates belonging to Muslim, Latin Catholic, OBH and S.C. has marks, above 400. In the next lower range 350 to 399, all communities except S. C. have representation. In this range also forward community has the highest No. 152 which is approximately 87 per cent of the total applicants in that range. In the lower mark ranges the position changes. In the mark range of 250 to 299, the forward community candidates are only 35.5% and in the lowest range of below 250 the percentage of forward community candidates is only 7.4%. The number of candidates from Muslim Community is maximum.

3. Number of candidates with their communities in which they are considered

1. The number of candidates in different mark ranges and the community in which they are included as per income basis is shown in the table XIX given below. It is seen that out of the total of 363 applicants 302 are from forward community which is approximately 83 per cent. It is further seen that nearly 88 per cent of the Malabar applicants are forward communities (36 out of 41) whereas in T. C. area the corresponding percentage is only 82.6% (266 out of 322).

TABLE—XIX

Region-wise number of applicants in different marks range with the community in which they are ranked

Marks	Region	Forward	Ezhava	Muslim	L. C.	O. B. H.	SC/ST	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Above 400	T. C. Area	12	..	..	..	..	..	12
	Malabar Area	5	..	..	..	..	..	5
	State	17	..	..	..	..	..	17
350-399	T. C. Area	156	1	..	1	..	..	158
	Malabar Area	16	..	..	..	..	..	16
	State	172	1	..	1	..	..	174
300-349	T. C. Area	75	11	..	1	2	..	89
	Malabar Area	10	1	..	..	..	..	11
	Total	85	12	..	1	2	..	100
250-299	T. C. Area	19	13	3	..	2	1	38
	Malabar Area	4	..	2	..	1	..	7
	Total	23	13	5	..	3	1	45
Below 250	T. C. Area	4	2	14	1	1	3	25
	Malabar Area	1	..	1	..	..	..	2
	Total	5	2	15	1	1	3	27
Grand Total	T. C. Area	266	27	17	3	5	4	322
	Malabar Area	36	1	3	..	1	..	41
	Total	302	28	20	3	6	4	363

2. Considering the marks of the candidates is seen that all 17 candidates having marks above 400 are Forward Communities. The maximum number of Ezhava and other Backward Hindus are in the mark range of 250 to 299 and Muslim and Scheduled Castes are in the mark range of below 250.

3. The number of applicants according to different communities in which they actually belong and to community in which they are included for selection are shown in table XX. It shows how many Ezhava, Muslim, O. B. H. etc. are included under Forward Community as per the income.

TABLE—XX

Statement showing the number of applicants with the community in which they actually belong and the community on which they are included for ranking

Marks Range	Forward		Ezhava		Muslim		L. C.		O. B. H.		SC/ST		Total	
	A.	C.	A.	C.	A.	C.	A.	C.	A.	C.	A.	C.	A.	C.
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Above 400	16	17	1	..	..	..	..	..	..	..	..	..	17	17
350-399	152	172	14	1	4	..	1	1	3	..	..	..	174	174
300-349	65	85	29	12	..	..	1	1	5	2	..	..	100	100
250-299	16	23	18	13	6	5	..	..	4	3	1	1	45	45
Below 250	2	5	3	2	17	15	1	1	1	1	3	3	27	27
Total	251	302	65	28	27	20	3	3	13	6	4	4	363	363

Note:—A. Community in which actually belong.

C. Considered as per income.

III. Branches preferred by candidates

1. The statement (No. XXI) shows the region-wise number of applicants in different mark range and the subject in which they have shown preference. It is seen that out of 363 applicants 141 have shown Chemical Engg. as their First Choice. But if we consider the applicants of T. C. and Malabar region it can be seen more candidates have preferred, Instrumentation and Central System (28 out of 41). It may be due to the nearness of the institution in which this course is conducted (N. S. S. College, Palghat).

2. It is seen that most of the candidates having marks above 400 have preferred Instrumentation and Central System. Out of 17 candidates having marks above 400, 13 have preferred, Instrumentation and Central System. But no candidates under this mark range has preferred Chemical Engineering. In the next lower mark range of 350 to 399 more candidates have preferred Chemical Engineering. But in the case of Malabar candidates having marks 350 to 399 Chemical Engineering is preferred by less number compared to the Instrumentation and Central System.

3. The shifting of preference from Instrumentation and Central System to the branch Chemical Engineering is seen in all ranges of marks below the range of 350 to 399. It is also seen that preference of "Instrumentation and Central System" is less than that of Production Engineering for candidates of T. C. Area having marks below 350.

TABLE—XXI

Number of candidates and their first choice

Marks	Region	I Choice			Total
		Instrumentation & Central System	Production Engg.	Chemical Engg.	
(1)	(2)	(3)	(4)	(5)	(6)
Above 400	T. C. Area	8	4	..	12
	Malabar Area	5	..	..	5
	Total	13	4	..	17
350-399	T. C. Area	49	41	68	158
	Malabar Area	11	1	4	16
	Total	60	42	72	174
300-349	T. C. Area	26	27	36	89
	Malabar Area	8	2	1	11
	Total	34	29	37	100
250-299	T. C. Area	8	11	19	38
	Malabar Area	2	3	2	7
	Total	10	14	21	45
Below 250	T. C. Area	5	9	11	25
	Malabar Area	2	..	..	2
	Total	7	9	11	27
Total	T. C. Area	96	92	134	322
	Malabar Area	28	6	7	41
	Total	124	98	141	363

IV. Selection and admission

As these courses viz. Instrumentation and Control, Production Engineering and Chemical Engineering was started in two Private Colleges, selection has been made only for the seats available after earmarking the management quota.

The selection of candidates according to the first list and final admission under making subsequent selection under each course and against Merit (State, TC & Malabar) and community reservation is shown in statement XXI.

TABLE—XXI
Selection and admission

(1)	Selection according to Final Admission first list					
	Production Engg.	Chemical Engg.	Instrumentation & Control	Production Engg.	Chemical Engg.	Instrumentation & Control
(1)	(2)	(3)	(4)	(5)	(6)	(7)
<i>Merit</i>						
(State, T. C. & Malabar)	8	8	9	5	7	9
<i>Community Reservation</i>						
Ezhava		1	1	2	1	1
Muslim	1	1	1	1	1	1
O. B. H.	1	1	1	1	1	1
O. B. C. & L. C.		1			1	
S. C./S.T.	1	1	1	1	1	1
Total	11	13	13	10	12	13

PART—III

ADMISSION OF CANDIDATES IN REGIONAL ENGINEERING COLLEGE, CALICUT
FOR B. Sc. (ENGG.) COURSE FOR THE YEAR 1980-81

1. Introduction

1. During the year under report (Academic year 1980-81). The Principal, Regional Engineering College, Calicut has received 1130 applications from candidates of Kerala State for admission to 125 seats earmarked for Kerala Students. The corresponding number during the previous year was 1013. In other words the number increased by 117. During this year Electronics Course has been newly started keeping the total intake capacity same as in the previous year.

2. In addition to the above 505 applications have been received from Kerala Students for admission in Regional Colleges of other States (41 seats in 10 Regional Engineering Colleges).

2. Receipt of Applications and Selection

A. Receipt of Application

1. The number of applications, received under merit and community reservation and the number selected are shown in the statement (No. XXII) given below. It is seen that out of 1,130 candidates, 910 of them are considered for selection under merit and remaining 199 under community reservation.

2. 940 candidates coming under merit quota mainly consists of forward communities, socially and educationally backward communities whose family annual income is not less than Rs. 10,000.

3. Regarding the selection it is seen that out of 940 applicants, under merit quota 82 of them have been selected for admission with 63 under State merit, 12 under T. C. merit and remaining 7 under Malabar merit. In the case of candidates belonging to reservation communities larger numbers are from Ezhava community.

4. The column in which the percentage of marks of the last selected candidates shows that no candidates with the exemption of SC/ST have marks below 65.8% have not been selected for admission.

TABLE—XXII

Number of applications received from students of Kerala in Regional Engineering College,
Calicut and number selected for admission to the B. Sc. Engineering course 1980-81

Category	No. of applicants	Number selected	% marks of the last selected candidates
(1)	(2)	(3)	(4)
I. Merit			
1. State Merit	..	63	83.7
2. T. C. Merit	..	12	83.7
3. Malabar Merit	..	7	83.5
Total	940	82	..
II. Community Reservation			
1. Ezhava	77	11	66.0
2. Muslim	45	10	65.8
3. Latin Catholics	13	3	72.4
4. Other Backward Hindus	39	6	73.3
5. Other Backward X'ian	4	1	82.0
6. Scheduled Caste		10	
7. Scheduled Tribes	12	2	40.6
Total Community Reservation	190	43	..
Grand Total	1130	125	..

B. Selection of Candidates

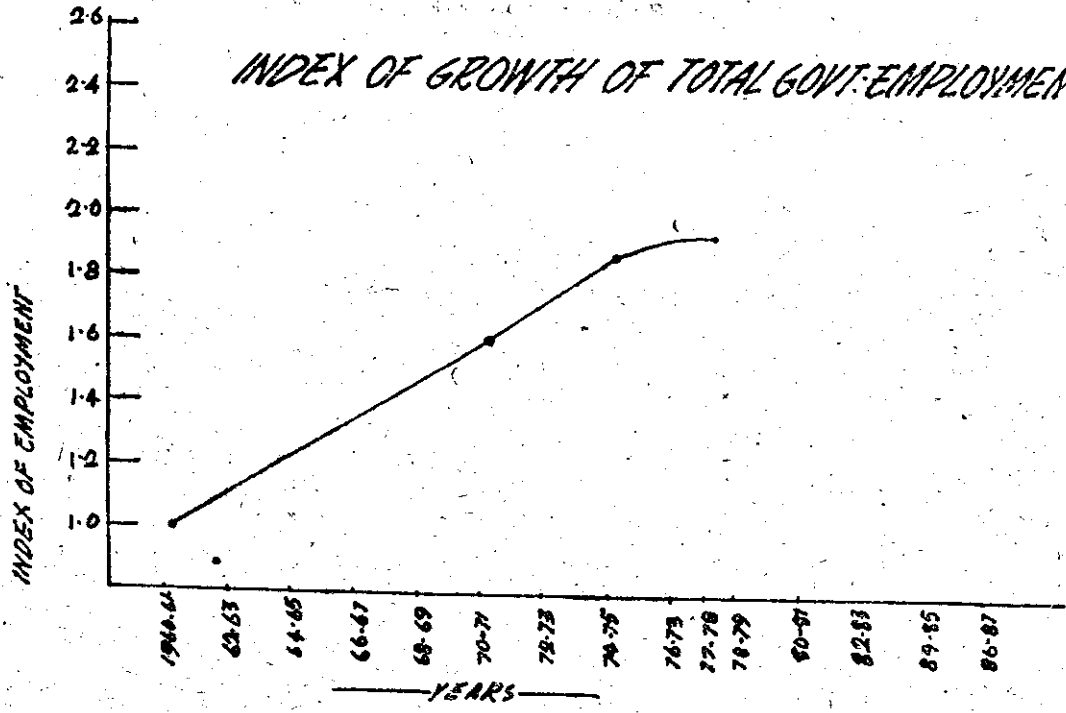
125 seats are earmarked for the students of Kerala. The distribution of the 125 seats in different branches and No. selected for each branch from different categories of candidates is shown in the table given below. These 125 seats are distributed with 35 seats for Civil, 45 for Mechanical, 30 for Electrical and remaining 15 for Electronics. All selected candidates except those of SC/ST candidates have been admitted. It is seen that out of 12 selected candidates, belonging to SC/ST only 7 have sought admission.

TABLE—XXIII

Number of Kerala candidates selected for admission in different branches and number actually admitted

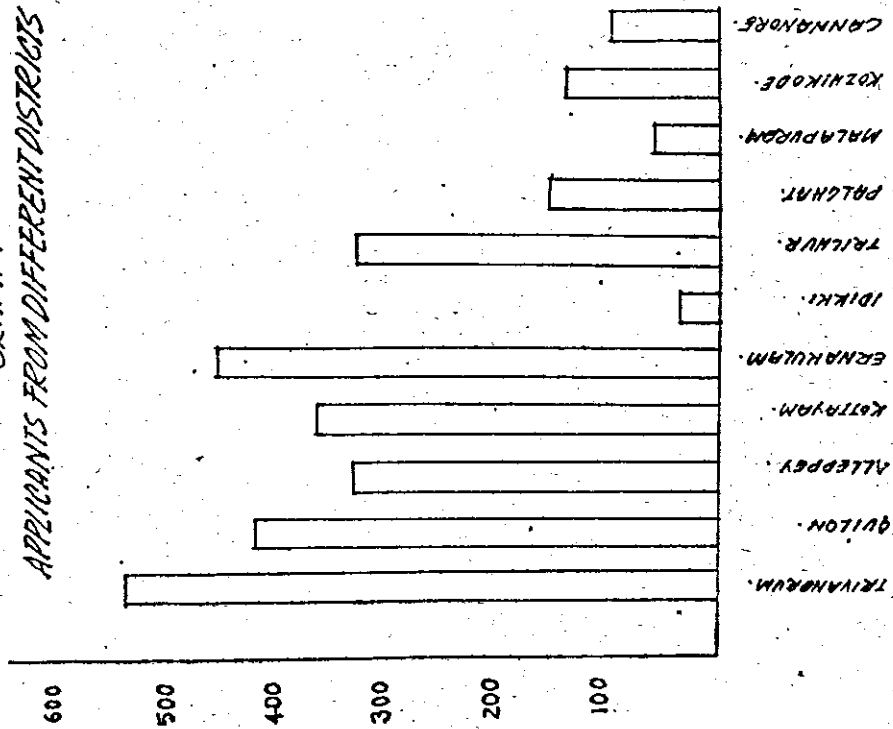
	No. selected for the branches				Total No. admitted	
	Civil	Mechanical	Electrical	Electronics	(6)	(7)
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Open Merit	18	22	15	8	63	63
T. C. Merit	3	4	3	2	12	12
Malabar Merit	2	3	1	1	7	7
Ezhava	3	4	3	1	11	11
Muslim	3	4	2	1	10	10
Latin Catholics	1	1	1	..	3	3
Other Backward Hindu	2	2	1	1	6	6
Other Backward X'ian	..	1	..	..	1	1
Scheduled Caste	3	3	3	1	10	7
Scheduled Tribes	..	1	1	..	2	..
Total Kerala Candidates	35	45	30	15	125	120

INDEX OF GROWTH OF TOTAL GOVT. EMPLOYMENT

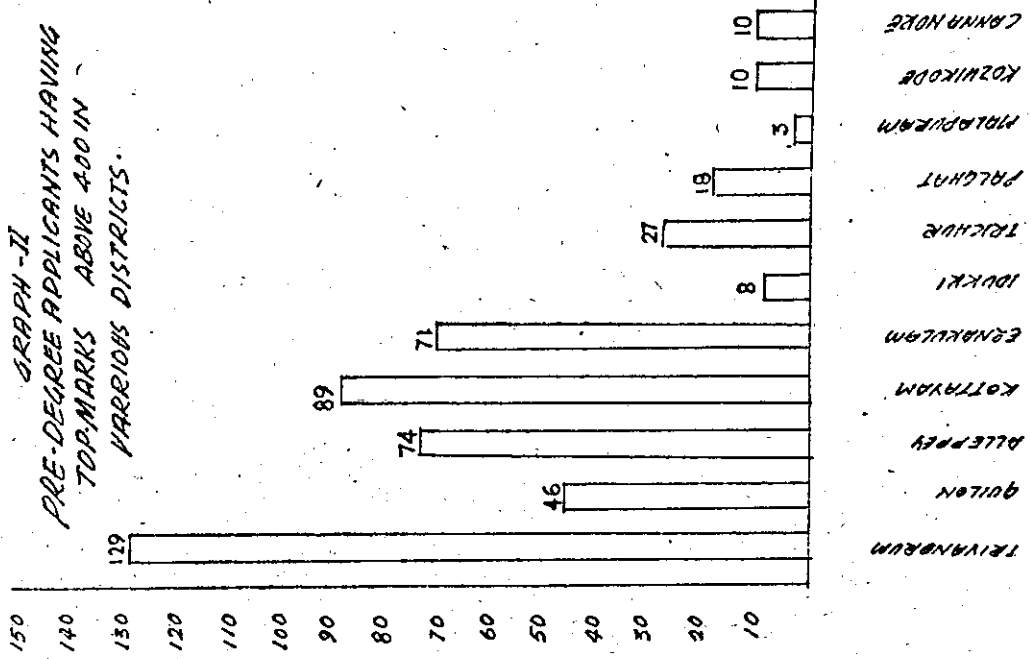


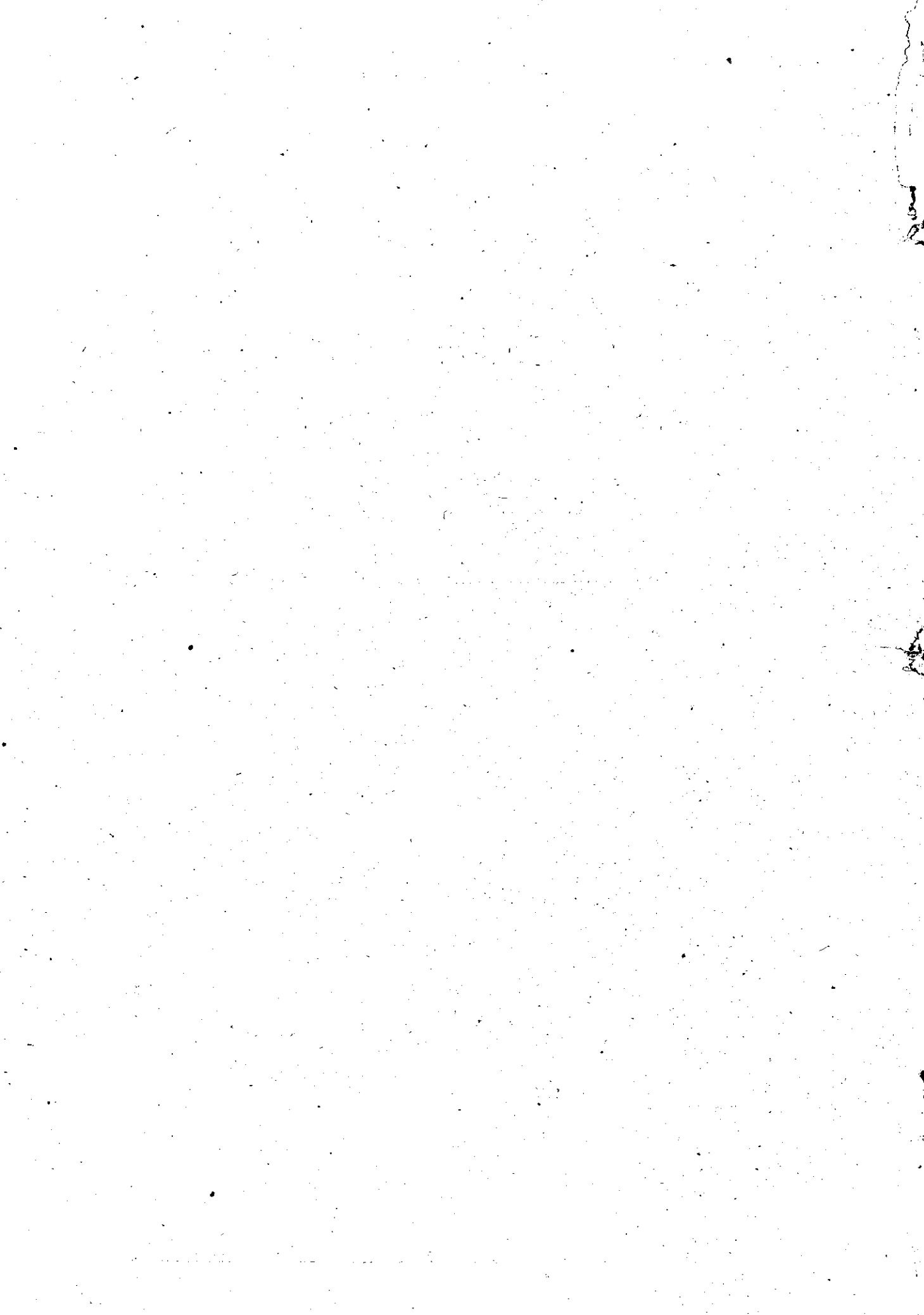


GRAPH I
 APPLICANTS FROM DIFFERENT DISTRICTS

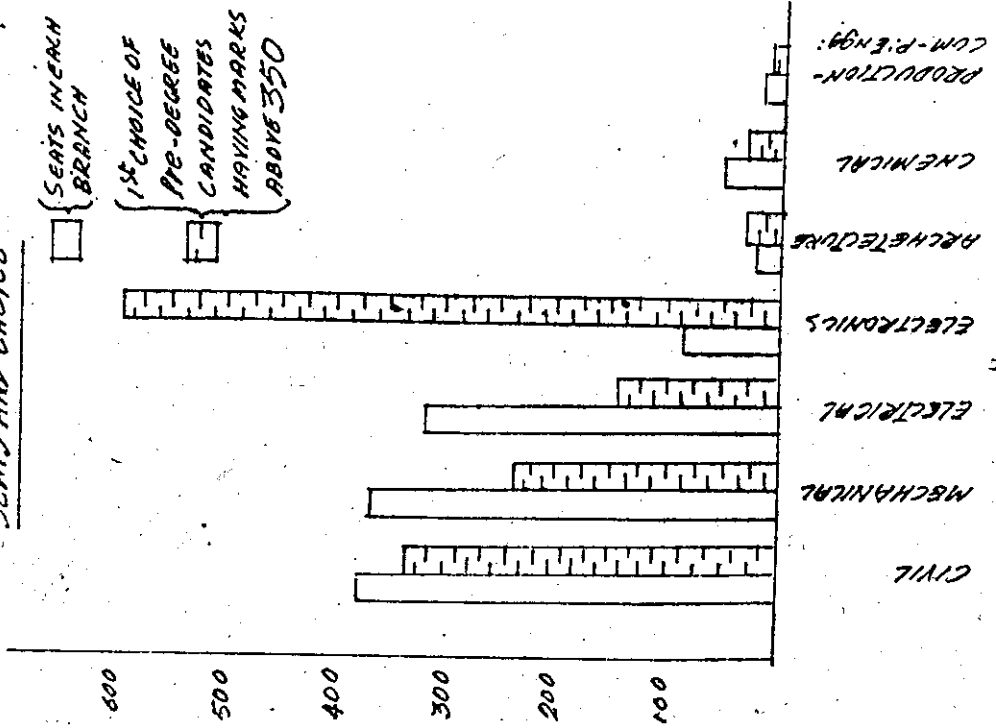


GRAPH -II
 PRE-DEGREE APPLICANTS HAVING
 TOP-MARKS ABOVE 400 IN
 VARIOUS DISTRICTS.



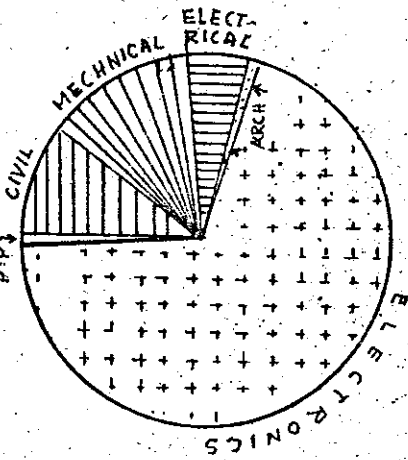


GRAPH-IV
SEATS AND CHOICE

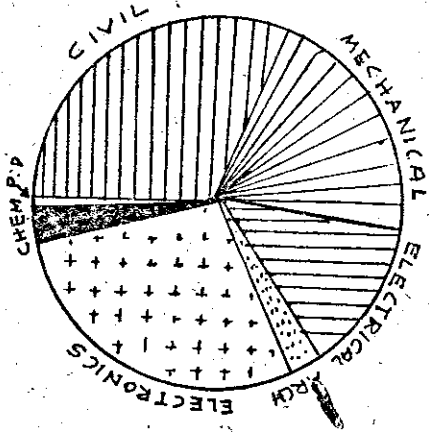


GRAPH-III

SUBJECTS AND PREFERENCE
PRE-DEGREE CANDIDATES HAVING MARKS 400
AND ABOVE



CANDIDATES HAVING MARKS ABOVE 350 BUT BELOW
400



1040

