

**A STUDY OF THE EFFICACY OF SUPPORTING
PROGRAMMES FOR SCHEDULED CASTE
AND SCHEDULED TRIBE PUPILS**

Thesis submitted for the award of the degree of

**DOCTOR OF PHILOSOPHY
IN EDUCATION**

By
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2000

DECLARATION

I, P.K. Achuthan, do hereby declare that this thesis entitled "A STUDY OF THE EFFICACY OF SUPPORTING PROGRAMMES FOR SCHEDULED CASTE AND SCHEDULED TRIBE PUPILS" is a bonafide record of research work carried out by me under the guidance and supervision of Dr. K. Sivarajan, Project Officer (Selection Grade), Department of Adult Education and Extension Services, University of Calicut & Director, University Teacher Education Centre.

I do declare that this thesis has not been submitted by me fully or partly for the award of any Degree, Diploma, Title or Recognition before.

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CERTIFICATE

This is to certify that the thesis entitled "A STUDY OF THE EFFICACY OF SUPPORTING PROGRAMMES FOR SCHEDULED CASTE AND SCHEDULED TRIBE PUPILS' is a bonafide work carried out by Shri. P.K. Achuthan, Research Scholar, under my guidance and supervision and that no part of this work has been submitted for any other Degree, Diploma, Title or Recognition before.

He is allowed to submit the thesis for the award of the Degree of Doctor of Philosophy in Education of the University of Calicut.

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P. K. ACHUTHAN

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INTRODUCTION

P. K. Achuthan “A study of the efficacy of supporting programmes for scheduled caste and scheduled tribe pupils” Thesis. Department of Adult Education and Extension Services, University of Calicut, 2000

CHAPTER I

INTRODUCTION

1. The background
2. Need and importance of the study
3. Significance of the study
4. Statement of the problem
5. Definition of key terms
6. Scope and limitation of the study
7. Objectives of the study
8. Procedure in brief
9. Tools and techniques used in the study
10. Selection of sample and collection of data
11. Statistical techniques used
12. Organisation of the thesis

INTRODUCTION

1. THE BACKGROUND

Education aims at development of the people, which in turn is expected to contribute to the development of the nation. This is possible because an educated person is considered to be more productive in all domains of human life. This productivity is very low among Scheduled Caste (SC) and Scheduled Tribe (ST) communities, who form 23.5% of the total population, due to lack of proper education. Hence, the goal of national development can not be achieved without giving proper emphasis for the education of these deprived sections of the society.

SCs and STs are groups of people who, for thousands of years, were under the clutches of slavery. They were not given education which was the monopoly of the elite classes. Their tradition, culture, values, attitudes, etc. are different from those of other groups. When compared with other sections of the society, the educational progress of these sections can lead the nation to prosperity. Any educational programme, without proper education for SCs and STs is meaningless. Considering their backwardness in socio-cultural and educational endeavours, special care is being given to them in recent years. The Constitution of India gives ample provisions to safeguard the rights and privileges of these people and to remove the

social and educational backwardness by providing educational opportunities that had been denied to them during the past.

Article 46 under the Directive principles of the Indian Constitution (Constitution of India, 1973) reads thus: "the state shall promote with special care the educational and economic interests of the weaker sections of the people, and, in particular, of the Scheduled Castes and Scheduled Tribes, and shall protect them from social injustice and all forms of exploitations."

The National Commission for Education, 1966 observed thus: "It is necessary to pay special attention to the education of children from backward classes which include the Scheduled Caste, Scheduled Tribe, the denotified communities and a few nomadic and semi-nomadic groups."

The National Policy on Education, 1986 laid special emphasis on the removal of disparities and equalisation of educational opportunities by attending to the specific needs of those who have been denied equality so far. The following are the major proposals for the betterment of the SCs.

- (i) Incentives to indigent families to send their children to school regularly till they reach the age of 14;
- (ii) Pre-matric scholarship scheme for children of families engaged in occupation such as scavenging, flaying and tanning to be made

applicable from class I onwards. All children of such families, regardless of income will be covered by this scheme and time-bound programmes targeted on them will be under taken;

- (iii) Constant micro-planning and verification to ensure that the enrolment, retention and successful completion of courses by SC students do not fall at any stage, and provision of remedial courses to improve their prospects for further education and employment;
- (iv) Provision of facilities for SC students in student hostels at district head quarters, according to a phased programme; etc.

The following are the major measures suggested in the Education Policy to bring the Scheduled Tribes on Par with others.

- (i) Residential schools, including Ashram schools, will be established on a large scale;
- (ii) Incentive scheme will be formulated for the STs keeping in view their special needs and life styles. Scholarships for higher education will be distributed with technical, professional and para-professional courses. Special remedial courses and other programmes to remove Psycho-social impediments will be provided to improve their performance in various courses.

In accordance with Constitutional provisions and in line with recommendations of the National Commission for Education and the National Policy on Education 1986, the Union Government and State Governments have been making efforts to provide educational incentives to SCs and STs. What is expected is that by providing such incentives, material assets among the weaker sections of the society could be helped to catch up and cope up with the general population of the country. A number of schemes have been launched for their educational benefits.

At the Central level, the scheme suggested are post-matric scholarship, girls hostels, coaching and pre-examination training schemes are undertaken. At the State level the schemes include pre-matric scholarships and stipends, exemption from tuition fees, provision of mid-day meals, organising special coaching classes and setting up of residential type of schools and hostels for the SC and ST children.

2. NEED AND IMPORTANCE OF THE STUDY

For a country which has accepted the goal of a democratic equalitarian society, promotion and development of education for the Scheduled Castes and Scheduled Tribes is an unavoidable commitment. Education has been perceived to be a pre-requisite for improving the status of the Scheduled Castes and Scheduled Tribes. Even though our school system has been expanding steadily since independence, this fundamental

pre-requisite for around development of these sections of the society is not achieved so far. .

The educational scenario in Kerala is far better than that of most other states in India. But with regard to education among SCs and STs, it is still backward. Education is one of the welfare activities undertaken by the Kerala Government for amelioration of SCs and STs. Educational concessions are offered to the SCs and STs of the state for their formal education at all levels, right from the pre-primary to the post-graduate stages.

The educational provision made for the SC and ST pupils cover the entire educational system. All these programmes should have resulted in the uplift of the educational status of the SCs and STs. But the quantity as well as quality of education among SC and ST pupils are still far from satisfactory. As a result of this, a very large number of SCs and STs continue to be educationally backward and are languishing at the bottom of the social and economic pyramid.

Maximisation of the level of educational performance of pupils belonging to SC and ST is of prime concern even today. But the fact still remains that we have failed to achieve this objective up to the desired level. Pupils belonging to these sections are found not to take up and complete the educational tasks at the level that is expected of their age or grade in the

school. It is with a view to face this challenge and to fully realise the anticipated educational goals that the government has introduced certain supporting programmes in addition to the concessions, stipends, lump sum grant, etc. generally provided.

The major supporting programmes thus introduced by the Kerala Government are (1) Tutorial System in pre-matric hostels, (2) Merit Scholarship Scheme, (3) Pre-matric and Post-matric hostel facilities (4) Special coaching scheme for standard X, (5) Financial assistance to SSLC failed students to continue education, and (6) Special incentive grants to the SC and ST students who come out of their SSLC, PDC and Degree examination in first classes, etc.

But it has been pointed out by many that in spite of these supports the level of the educational achievement of the SC and ST pupils is far below when compared with that of other strata of pupils. However, this requires a scientific investigation before a final judgement is arrived at.

Since enormous fund have been pumped into the educational sector through various schemes to boost up the progress of the SCs and STs, it was felt necessary to evaluate the result of the various on-going supporting programmes implemented in the state. This evaluation has to examine the efficacy of the supporting programmes that are being implemented by the

government for the qualitative improvement of the education of these weaker sections.

3. SIGNIFICANCE OF THE STUDY

In the Fourth Survey of Research in Education. Buch, (1991) has revealed that though there are large number of studies investigating relationship between psychological variables and achievements; studies on the evaluation of various educational schemes in operation in the country is a field rarely touched upon by the researchers.

Despite vast allocations of fund, the SCs and STs lag behind in education because something is lacking in the implementation of supporting programmes. There is no meaning in continuous pumping of resources without proper monitoring and evaluation of the programmes, which in turn would help in arriving at meaningful conclusions about their usefulness. Hence, a scientific study intended to find out the efficacy of supporting programmes is considered by the investigator to be highly significant.

From his experience of eight years as high school teacher and eleven years as an educational administrator, the investigator has got so many occasions to notice lapses in the conduct of such programmes. Moreover he himself being, a member of the Scheduled Caste, felt that it is his duty

arising out of a sense of social commitment to enquire into the problem and suggest remedial measures for its betterment.

4. STATEMENT OF THE PROBLEM

The enquiry is entitled "A STUDY OF THE EFFICACY OF SUPPORTING PROGRAMMES FOR SCHEDULED CASTE AND SCHEDULED TRIBE PUPILS."

5. DEFINITION OF KEY TERMS

(i) Efficacy

Efficacy is the power to produce an effect or intended result (Webster, 1991).

(ii) Supporting programmes

Programmes designed and implemented by various departments of the Government of Kerala to enhance the educational attainment of SC and ST pupils.

(iii) Scheduled Caste and Scheduled Tribe

The communities which were considered as unapproachable, economically, educationally and socially backward were listed in the Constitution of India with a view to provide special care to bring them to the main stream of the society.

Under Article 341(1) of the Constitution, the President by notification has specified the Castes or Tribes to be deemed to be Scheduled Caste under Constitution, in the Constitution (Scheduled Caste) order, 1950.

Under Article 342(1) of the Constitution, the President by notification has specified the Castes, Races or Tribes to be deemed to be Scheduled Tribes under Constitution, in the Constitution (Scheduled Tribe) order, 1950.

The list of SCs and STs was modified in 1956 and 1976. As such the list of SCs in Kerala consists of 68 communities and that of the STs has 35 Tribal groups.

(iv) Pupils

The children studying in schools from standard I to X are termed as pupils.

6. SCOPE AND LIMITATIONS OF THE STUDY

The present study tries to find out the efficacy of the supporting programmes being implemented by the various departments for the educational advancement of SC and ST pupils. The investigator ^{has} HAS attempted to examine the efficacy of the Tutorial System introduced in the pre-matric hostels, by the Scheduled Caste and Scheduled Tribe Development Department in order to improve the level of achievement of

SC and ST pupils. He also tried to find out how far the Merit Scholarship Scheme introduced by the Department of Education has been effective to motivate the SC and ST pupils.

The study inquires into the socio-economic status of the SCs and STs and its impact on the education of their children. On the basis of the finding of these studies the problems/deficiencies/lapses that exists have been identified and remedial measures suggested. It is expected that the results of the study would help in taking steps for revitalising the programmes and realising the anticipated goals. The findings would have been more reliable and valid had this been conducted as an experimental study, with a control group and an experimental group. But this is difficult, rather undesirable, because the effect can be thus studied only by denying the benefit of the supporting programmes to pupils of the control group for a substantially long period. This was considered unethical and undesirable and hence only one group was considered for the study. However, care has been taken to see that the efficacy was assessed as systematically and scientifically as possible by using appropriate tools and techniques.

Further, due to the vastness and diversity of the supporting programmes the investigator has not included a number of supporting programmes of the Department of Scheduled Castes and Scheduled Tribe Development and Department of Education. Out of the supporting

programmes of the Departments of Scheduled Caste and Scheduled Tribe and the Department of Education only one each has been taken up for the present study. However, ^{the} ~~one~~ ^s selected are the most important from the point of view of academic improvement.

In spite of the limitations, it is hoped that the study would make valuable contributions to help the planners, administrators, heads of schools and hostels to plan and implement the supporting programmes more effectively. It will also be helpful to the SC and ST pupils as well as their parents to make use of these programmes for their educational advancement.

7. OBJECTIVES OF THE STUDY

The following are the major objectives of the study.

- (i) To find out the efficacy of the Tutorial System provided in the pre-matric hostels run by the Scheduled Caste and Scheduled Tribe Development Department.
- (ii) To find out the impact of the Merit Scholarship Scheme introduced by the Department of Education.
- (iii) To find out the socio-economic status of SCs and STs who are recipients of merit scholarship, with a view to examine their distribution in the various levels of SES.

- (iv) To ascertain the extent and use of supporting programmes available for SC and ST pupils.
- (v) To identify the problems faced in the implementation of supporting programmes with a view to give suggestions for remedial measures.

8. PROCEDURE IN BRIEF

In the present study the efficacy is measured in terms of the enhancement in the achievement of a single group, after being exposed to the supporting programmes. Hence, the investigator resorted to pre-experimental design. In the absence of control group the researcher selected the one group pre test, post test method.

9. TOOLS AND TECHNIQUES USED IN THE STUDY

The following tools and techniques have been used for the collection of data.

(i) Achievement Tests

The investigator prepared achievement tests for standards VII and VIII for four subjects viz., English, Hindi, General Science and Mathematics with the help of school teachers handling the subjects and experts in the field. These tests were standardized and used to find out the efficacy of the Tutorial System.

(ii) Proforma

A proforma prepared by the investigator was used to collect the data regarding the school marks of the first and third terminal examinations of standard VIII of the Merit Scholarship winners.

(iii) Socio-Economic Status Scale

The Socio-Economic Status Scale prepared by Kuppuswamy and modified by K. Sivadasan Pillai was adopted with certain modifications and used for the study.

(iv) Interview Schedule

Unstructured interview schedules were used by the investigator to collect information from the heads of schools and teachers as well as the wardens of pre-matric hostels and teachers of the Tutorial System.

(v) Observation

The investigator visited the pre-matric hostels to observe and collect first hand information to understand whether the atmosphere in hostels are conducive to education.

10. SELECTION OF SAMPLE AND COLLECTION OF DATA

The scheme of Tutorial System is being implemented in pre-matric hostels. There are 79 pre-matric hostels for SCs and 108 for STs. Out of

these 59 SCs pre-matric hostels and 76 STs pre-matric hostels are situated in the seven northern districts of Kerala. Since Tutorial System starts from VIIIth standard, pupils of VIIIth standard staying in 74 out of 135 hostels were selected as the sample of the study.

In order to understand the impact of the Merit Scholarship Scheme, a representative sample of 445 Merit Scholarship winners were selected on random basis from the schools in seven northern districts of Kerala.

The tools were administered and data collected by the investigator himself with the co-operation of his colleagues, heads of schools and pre-matric hostels.

11. STATISTICAL TECHNIQUES USED

Data were tabulated, consolidated and subjected to statistical techniques such as mean, standard deviation and critical ratio (t-value) to arrive at valuable conclusions.

13. ORGANISATION OF THE THESIS

The thesis is presented in six chapters. The introductory chapter deals with the need, importance, significance, scope and objectives of the study.

Supporting programmes of Scheduled Caste and Scheduled Tribe Development Department and the Department of Education are enumerated in chapter two.

In the third chapter, the investigator has made an attempt to review the related studies in the field.

The methodology of the study is explained in chapter four. Tools and techniques, selection of sample, collection of data, etc. are discussed in detail.

The results of the analysis of the data have been summarised in chapter five.

Conclusions and suggestions are given in the last chapter. As is customary to every thesis, bibliography and appendices form the last part of the thesis.

SUPPORTING PROGRAMMES FOR SCHEDULED CASTE AND SCHEDULED TRIBE PUPILS

P. K. Achuthan “A study of the efficacy of supporting programmes for scheduled caste and scheduled tribe pupils” Thesis. Department of Adult Education and Extension Services, University of Calicut, 2000

CHAPTER II

**SUPPORTING PROGRAMMES FOR SCHEDULED CASTE
AND SCHEDULED TRIBE PUPILS**

- A. Supporting programmes for Scheduled Caste and Scheduled Tribe Development
- B. Supporting programmes for the Department of Education

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SUPPORTING PROGRAMMES FOR SCHEDULED CASTE AND SCHEDULED TRIBE PUPILS

For a country which has accepted the goal of a democratic equalitarian society, promotion and development of Scheduled Castes and Scheduled Tribes education is a forgone commitment. Education has been perceived to be a pre-requisite in improving the status of Scheduled Castes and Scheduled Tribes. Even though our school system has been expanding steadily since the state of Kerala came into existence in 1956, this fundamental pre-requisite for alround development of Scheduled Castes and Scheduled Tribes has not been achieved so far.

The Government of Kerala has been implementing several supporting programmes, through the Department of Scheduled Caste and Scheduled Tribe Development and Department of Education for the educational advancement of Scheduled Caste and Scheduled Tribe pupils. A brief description of the supporting programmes related to general education is also given in this chapter.

A. SUPPORTING PROGRAMMES OF THE SCHEDULED CASTE AND SCHEDULED TRIBE DEVELOPMENT DEPARTMENT

1. GENERAL EDUCATIONAL CONCESSIONS TO SCHEDULED CASTE AND SCHEDULED TRIBE PUPILS

Formal education is an attempt at deliberate programming of the opportunity of learning. This programming cannot be successful until and

unless various agencies associated to it lend active support. The family, especially the parents - is the most significant and effective agency. It is the parental model which is copied by their children in the beginning. They look at the parents not only as sources of protection but also as sources of aspirations, expectations, guidance and motivations. Lack of this source has been found to be adversely affecting the process of learning.

As far as the Scheduled Caste and Scheduled Tribe pupils are concerned, the above said source is far behind that of non-Scheduled Caste and Scheduled Tribe pupils. The family of the Scheduled Caste and Scheduled Tribe pupils are under the clutches of social deprivation i.e. poverty, misery, low social status and social segregation.

Grant of educational concession is one of the most important measures adopted by the Government for the amelioration of Scheduled Caste and Scheduled Tribe communities. Concessions are granted to Scheduled Caste and Scheduled Tribe pupils for all branches of study.

Students of Scheduled Castes and Scheduled Tribes and other Eligible Communities are granted full fee concession and lump sum grant for purchase of books and other accessories. In addition to this, students of Scheduled Tribes are granted monthly stipend. All these together are known as general educational concessions.

(i) Fee Concessions

(a) Pupils belonging to Scheduled Castes and Scheduled Tribes are given full fee concessions including exemption from payment of all kinds of fees, for all branches of study.

(b) This concession to Scheduled Caste and Scheduled Tribe pupils is allowed for two years in each class in case of failure or detention, without restriction of income.

(c) All fee concessions are granted by the Headmasters of schools. No fees will be collected from the pupils belonging to Scheduled Caste and Scheduled Tribe in any education institution - Government or aided in the state.

(d) Pupils belonging to Scheduled Castes and Scheduled Tribes who appear for the SSLC examination are granted exemption from payment of examination fee for the second appearance on production of a certificate from the Headmasters of the School where they were studying to the effect that the candidates appear for the examination a second time within a period of three years from their first appearance.

(ii) Lump sum grant and Stipend for pre-matriculation courses

(a) Scheduled Caste and Scheduled Tribe pupils studying in schools either Government, aided or unaided recognised are eligible for lump sum

grant. The rate of lump sum grant is given below:*

1.	Nursery School	:	Rs. 50/-
2.	Standard I to III	:	Rs. 70/-
3.	Standard IV	:	Rs. 75/-
4.	Standard V	:	Rs.110/-
5.	Standard VI and VII	:	Rs.125/-
6.	Standard VIII to X	:	Rs.175/-

(b) Scheduled Caste and Scheduled Tribe pupils are granted lump sum grant for the second year for study in the same class @ half of the original rate.

(c) Monthly stipend is given to Scheduled Tribe pupils. The rate of stipend is given below:

1.	Standard I to IV	:	Rs.25/-
2.	Standard V to VII	:	Rs.30/-
3.	Standard VIII to X	:	Rs.35/-

(d) The Headmaster of the school should receive the caste certificate from the pupils before recommending the payment.

* Source: Government of Kerala, Scheduled Caste/Scheduled Tribe Development Department *Diary 1998*, Trivandrum, Government Press, 1998.

(e) The Taluk Scheduled Caste Development Officer is the authority to sanction the lump sum grant.

(f) Monthly stipend is sanctioned by the Tribal Development Officer concerned.

(g) As soon as the admission is over the Headmaster shall prepare a bill and forwarded it to the Taluk Scheduled Caste Development Officer/Tribal Development Officer along with the list of eligible pupils.

(h) The Taluk Scheduled Caste Development Officer/Tribal Development Officer shall check the lists and record his sanction in all copies of the lists and send one copy to the Accountant General and one copy to the Headmaster for encashment.

(i) On disbursement of the amount the Headmaster shall obtain the acquittance of the students with the attestation of the guardian of the pupil and the class teacher. The acquittance shall be forwarded to the Taluk Scheduled Caste Development Officer/Tribal Development Officer as in the case may be, within one week after the encashment of the bill.

(j) An attested copy of the acquittance shall be maintained in the school for further reference.

2. HOSTELS

(i) Pre-Matric Hostels

Opening of hostels for school going children is one of the schemes for the educational advancement of Scheduled Castes and Scheduled Tribes. These communities being mostly labourers leave their children uncared for during day time. The children can not therefore attend the schools which are usually away from their places. This condition has created the necessity of hostels for Scheduled Caste and Scheduled Tribe pupils.

The main objective of the scheme is to improve educational standard and success of the Scheduled Caste and Scheduled Tribe pupils, by giving proper educational environment in the hostel.

Rules and Regulations*

(a) The hostel provides accommodation and mess for Scheduled Caste and Scheduled Tribe pupils.

(b) Though the hostel is meant for pupils belonging to Scheduled Castes and Scheduled Tribes, 10% of the total seats are reserved for pupils

* Source: Government of Kerala, Department of Harijan Welfare, A Hand Book Trivandrum: Government Press, 1964.

other than Scheduled Castes and Scheduled Tribes. They are selected on the basis of the income of their parents.

(c) The accommodation and mess in the hostel shall be free of cost to all boarders.

(d) The inmates are given two pairs of clothes, in a year.

(e) The boarders are given financial assistance to buy note books and other learning materials.

(f) The boarders are eligible for travelling allowance for their to and fro journeys during christmas and onam holidays and also for summer vacation to their homes.

(g) The hostel provides library, radio, television set, etc.

(h) Application for admission to the hostel should be sent in the prescribed form to the District Scheduled Caste Development Officer/Tribal Development Officer of the District concerned, in which the hostel is situated through the Heads of schools in which the pupil is studying.

(i) Pupils who were boarders in the hostels and who may fail in any class in secondary school may be admitted in the hostel for a second year.

(j) The hostels are functioning under the control of Wardens. A Watchman and a Cook are also appointed.

(k) The District Scheduled Caste Development Officer/Tribal Development Officer, under whom the hostel is functioning shall be the controlling authority of the hostel and be responsible for the efficient administration and for the welfare of the inmates. He shall inspect the hostels as many times as possible in a month, and ensure that the hostels function satisfactorily. The Taluk Scheduled Caste Development Officer also shall inspect the hostel not less than once in a week and bring to the District Scheduled Caste Development Officer's notice, any defects or irregularities found by him during his inspection. During the inspection, the District/Taluk Scheduled Caste Development Officer/Tribal Development Officer should scrutinise the accounts, registers and see that all expenditure is properly incurred.

(ii) Subsidised Hostels

In addition to the Govt. pre-matric hostels, subsidised pre-matric hostels are functioning in the State for Scheduled Caste and Scheduled Tribe pupils. They are run by the non-governmental organisations (NGO's). These are approved by the Department of Scheduled Caste and Scheduled Tribe Development.

The inmates of these hostels are paid @ Rs.250/- each as boarding grant per month and two pairs of dress by the Government.

3. TUTORIAL SYSTEM

The objective of the Tutorial System is to improve the quality of the education imparted in schools to Scheduled Caste and Scheduled Tribe pupils, who resides in the pre-matric hostels. This special tuition programme is introduced in hostels from 1987-'88 onwards.

The salient features of the Tutorial System are:-

(a) The scheme is operated in the pre-matric hostels, where more than 20 boys or girls are studying in Std. VIII, IX and X.

(b) Special tuition programme is given in difficult subjects such as English, Mathematics, Science and Hindi.

(c) Retired high school teachers and unemployed postgraduates/ graduates are appointed as teachers. Preference will be given to trained hands.

(d) The teachers are selected by a Selection Committee. Taluk Scheduled Caste Development Officer, one Headmaster of High School nearest to the hostel, the Scheduled Caste/Scheduled Tribe member of the

panchayat, where the hostel is situated, are the members of the Selection Committee.

(e) The tuition classes are arranged in the morning or evening depending upon the decision of the Committee.

(f) At least 50 hours instruction have to be imparted in a month.

(g) An honorarium @ Rs.25/- for an hour is given for teachers imparting instructions. *

(h) The Scheduled Caste Development Officer/Tribal Development Officer of the district concerned is bound to provide facilities - such as, furniture, blackboard and attendance register for the conduct of the tuition classes.

(i) Pupils attending the class are provided with a dozen notebooks of 200 pages for an year.

(j) The supervision and accounting of this programme is entrusted with the Warden of the hostel. He has to submit monthly progress report to the Taluk/District Scheduled Caste Development Officer

* This amount has been raised to Rs.50/- as per G.O.(MS)No.94/98 SC/ST Development Department, Trivandrum, dated 9.3.1998.

in the case of hostels under Scheduled Caste Development Department and Tribal Development Officer in the case of hostels under their control.

(k) It is the responsibility of the District Scheduled Caste Development Officer and Tribal Development Officer to look after the implementation of the programme at district level. They have to visit the tuition centres once a month and submit their reports to the Director concerned.

4. FINANCIAL ASSISTANCE FOR CONTINUING EDUCATION

As we know, the pupils belonging to Scheduled Caste and Scheduled Tribe Community are coming from socially, economically and educationally backward environment. The parents of Scheduled Caste and Scheduled Tribe pupils are unaware of the importance of education and not motivated to send their children to school regularly. Moreover the educational environment of the home is not conducive for proper learning. Hence, most of them fail in the SSLC examination. In order to overcome this situation the Government of Kerala started a scheme for giving financial assistance to SSLC failed Scheduled Caste and Scheduled Tribe pupils for continuing education, through private tutorial colleges from the year 1988-'89 onwards.

The main objective of the scheme is to improve the standard of selected Scheduled Caste and Scheduled Tribe pupils and to achieve better results in the SSLC examination through private tutorial colleges.

The major criteria of the scheme are:

(a) The scheme provides financial assistance to SSLC failed Scheduled Caste and Scheduled Tribe pupils who secure a minimum of 25% of marks in aggregate for the SSLC examination.

(b) Duration of the scheme is eight months.

(c) Special tuition is given through private tutorial colleges.

(d) Under the scheme, selected pupils are given tuition fees, travelling allowances, stationery charges, etc. for the course of eight months study. The tuition fees are disbursed by the District Scheduled Caste Development Officer as instalments or as lump sum, after consulting the tutorial colleges concerned.

(e) The financial assistance is being paid to the course at the following rates:

* Source: Government of Kerala, Scheduled Caste-Scheduled Tribe Development (A)Department, G.O.(MS) No.72/88/SC-ST, Trivandrum, dated, 13th June 1988.

(i) Scheduled Caste Pupils

1.	Tuition fee	:	Rs.450/-
2.	Travelling expenses	:	Rs.250/-
3.	Stationery	:	Rs.100/-

(ii) Scheduled Tribe Pupils

1.	Tuition fee	:	Rs.450/-
2.	Lump sum grant	:	Rs.100/-
3	Stipend	:	Rs.480/-

(@ Rs.60/- for 8 months)

Scheduled Caste pupil's financial assistance is being paid through the Directorate of Scheduled Caste Development and in the case of Scheduled Tribe pupils, the financial assistance is being paid through the Directorate of Scheduled Tribe Development.

Procedure

(a) The application in prescribed form issued by the Directorates of Scheduled Caste Development and Scheduled Tribe Development, should be routed through the District Scheduled Caste Development Officer or the Scheduled Tribe Development Officer, respectively.

(b) The applicants should submit self attested true copy of SSLC for verification of marks and community along with the application. If selected, original caste certificate from Thahsildar should be produced.

(c) The candidates are selected from among the applicants based on marks secured in the SSLC examination.

(d) The financial assistance will be disbursed to the pupils on receipt of the fee receipt from the concerned tutorial colleges.

(e) An undertaking should be given by the selected pupils and their parents to the effect that the amount will be refunded if it is not properly utilised.

5. SPECIAL INCENTIVES*

(i) Special Incentive for Scheduled Caste Pupils

Under this scheme the pupils belonging to Scheduled Castes who pass the SSLC examination in first class and above are given an incentive cash award of Rs.500/-.

(ii) Special Incentive for Scheduled Tribe Pupils

The pupils who attain 45% and above marks in the annual examination of standard VIII and IX are given rupees 50/- each. The Scheduled Tribe pupils who pass SSLC examination with 45 percentage of marks and above are given Rs. 200/- each. Those who secure first class in SSLC examination are provided with cash award of Rs. 2500/-.

6. RESIDENTIAL SCHOOLS

(i) Model Residential Schools

In order to provide better education for outstanding Scheduled Caste and Scheduled Tribe pupils, the Government have started five model residential schools, one each in Trivandrum, Idukki and Malappuram district and two in Wayanad district. Selection of the students are made on the basis of an entrance examination. Thirty students are selected every year. Ten per cent of the seats are allotted to Non-Scheduled Caste and Non-Scheduled Tribe students. Better education facilities are provided in these model schools in public school model.

(ii) Government Residential Basic Schools

Government have started three Residential Basic Schools in tribal centres where there are no schools of the Education Department.

(iii) Rajiv Gandhi Memorial Ashram School

The Government have started Rajiv Gandhi Memorial Ashram School in Nulpuzha Panchayat of the Wynad district to provide residential education for primitive tribes. Thirty pupils are admitted in first standard every year.

B. SUPPORTING PROGRAMMES OF THE DEPARTMENT OF EDUCATION

(I) SPECIAL COACHING SCHEME

The result of the SSLC examination of the Scheduled Caste and Scheduled Tribe pupils is very poor compared to that of non- Scheduled Caste and Scheduled Tribe pupils. Weak foundation at the pre-matric level, inadequate facilities at home and lack of teaching learning process are the major factors contributing for this pathetic situation. Considering the problem, the Department of Education has introduced 'Special Coaching Scheme' from 1989-'90 onwards.

The objectives of the Special Coaching Scheme are (1) to improve the standard of Scheduled Caste and Scheduled Tribe pupils and (2) to achieve better results in the SSLC examination.

Following are the salient features of the scheme.*

- (a) Special coaching classes are conducted for Scheduled Caste and Scheduled Tribe pupils in standard X in the Departmental and private High Schools.

Source: Government of Kerala, Directorate of Public Instructions, *Order No.PL(4)65254/89/DPI* dated, 29th June, 1989.

- (b) In schools where the number of Scheduled Caste pupils in standard X is 10 or more but below 45, only one unit is allowed. Where the strength is more than 45 an additional unit is allowed.
- (c) The coaching classes are arranged out of school hours either in the morning or evening on all working days according to the convenience of the pupils and teachers.
- (d) The coaching classes start 3 months prior to the commencement of the SSLC examination.
- (e) Coaching is given in 5 subjects, namely, Malayalam, English, Social Studies, General Science and Mathematics. For General Science, 2 teachers one for Physical Science and another for Natural Science are posted. Thus 6 teachers handling classes in the High School sections are selected in each school for handling the coaching classes, in each school under the supervision of the head of school concerned. The Headmaster will issue orders selecting teachers to handle the subjects.
- (f) In schools, where there are 2 units, the Headmasters will arrange another set of teachers as above for handling the classes.
- (g) Each teacher is paid an honorarium of Rs.150/- for the entire work.

- (h) The Headmaster who supervises the coaching classes is paid a supervision allowance of Rs.100/- for the entire course irrespective of the number of units.
- (i) Attendance Register for the pupils should be maintained. The Headmaster will supervise the classes frequently and ensure effective coaching. A time-table for the subjects may be prepared and a copy of the same forwarded to the District Educational Officer and to the Deputy Director of Education concerned.
- (j) The name of teachers appointed for the purpose, and date of commencement of classes should be reported to the District Educational Officer and to the Deputy Director of Education concerned.
- (k) The details of the pupils attending the classes should be entered in the register maintained for the plan scheme with their marks for the half yearly and SSLC examination.
- (l) The Headmasters will verify the number of SSLC pupils shown against their schools and report discrepancy, if any, to the Deputy Director of Education concerned.

(ii) MERITORIOUS SCHOLARSHIP SCHEME¹

The scheme is intended for the award of scholarships to meritorious Scheduled Caste and Scheduled Tribe pupils studying in Upper Primary Schools and High School Classes. It was started in 1977-'78 onwards. The main objective of the scheme is to motivate Scheduled Caste and Scheduled Tribe Pupils in learning.

Criteria of the Scheme^{}**

- (a) The scholarship is given to two Scheduled Caste and Scheduled Tribe boys and two Scheduled Caste and Scheduled Tribe Girls in Standard V and VIII.
- (b) Both departmental and aided schools come under this scheme.
- (c) The scholarship is given only to those who secure more than 45% marks in aggregate in the annual examination of the previous standards ie. standard IV in the case of upper primary scholarships and standard VII in the case of high school scholarships.

¹ The name of the scheme is reworded as 'Merit Scholarship Scheme' in this study.

^{**} Source: Government of Kerala, Education Department, *Guide Book 1990-'91*. Trivandrum: Statistical Wing, Office of the Director of Public Instruction, 1991.

- (d) The scholarship begins at standard V and ends at standard VII in the case of upper primary scholarships. In the case of high school, it begins at standard VIII and ends at standard X.
- (e) The amount of upper primary scholarship is Rs.40/- per annum in each of the standards V, VI and VII.
- (f) The amount of high school scholarship is Rs.60/- per annum in each of the standard VIII, IX and X.
- (g) The scholarship once awarded continues till the end of the particular stage of study, subject to continued progress. The Headmasters should satisfy themselves about the eligibility of the pupils, based on their progress, before according renewal.

Selection of the pupil and sanction for the award

- (a) The Headmaster of the upper primary schools and high schools, are entrusted with the selection of 2 Scheduled Caste and Scheduled Tribe boys and 2 Scheduled Caste and Scheduled Tribe girls from upper primary and high school respectively on merit basis.
- (b) The Headmasters should prepare fresh scholarship bill and renewal scholarship bill and forward these to Assistant Educational Officer

in the case of primary schools and District Educational Officer in the case of high schools.

- (c) Assistant Educational Officer and District Educational Officer are competent to sanction the merit scholarships in upper primary schools and high schools respectively.

(iii) Bridge Course

The main objective of the bridge course is to give the pre-requisite for advanced learning. The course can be conducted for the pupils who have completed standard IV and standard VII. The duration of the course will be four weeks. The number of pupils in each class will be 25. The minimum number required for opening a class will be 10 pupils. However, it should not exceed 30 pupils. The IV standard pupils are to be given coaching in Malayalam, Mathematics and Environmental Studies. The VIII standard pupils receive coaching in Malayalam, Mathematics, Science and English. There should be 5 teachers to teach the pupils, two teachers for IV standard and 3 for VII standard. Teachers are to be paid Rs.60/- per day. These courses are conducted in pre-matric hostels during summer vacation ie. April and May every year. Boarding and lodging facilities are provided for the participants. The supervision of the courses are entrusted with the Assistant Educational Officer of the area in which the hostel is situated.

The Deputy Director of Education and the Director of the State Council for Educational Research and Training supervise the programme at the District and State level respectively.*

(iv) SPECIAL PROVISION FOR RE-ADMISSION

Most of the SSLC failed pupils belonging to Scheduled Castes and Scheduled Tribes stop their studies. Considering the grave situation the Government of Kerala have made a special provision to SSLC failed Scheduled Caste and Scheduled Tribe pupils for re-admission in Standard X. The main objective of the provision is to attract and motivate pupils belonging^{to} Scheduled Castes and Scheduled Tribes to continue their education.

Procedure for re-admission*

- (a) The Head of the high schools is the competent authority to re-admit the pupils who have failed in the SSLC examination in the first appearance.
- (b) This provision is meant only for Scheduled Caste and Scheduled Tribe pupils.

* Source: Government of Kerala, Director of Public Instruction, *Order No.PL(4)39528/949/DPI*, Trivandrum, dated 13th July 1999.

* Source: Government of Kerala, *Kerala Educational Act and Rule*, Government Press, 1958.

- (c) The age limit of the Scheduled Caste pupil is 22 years.
- (d) In the case of Scheduled Tribe pupils above 22 years also are admitted.
- (e) The parents of the pupils should submit an application in prescribed form to the Headmaster of the school concerned.
- (f) The re-admitted Scheduled Caste and Scheduled Tribe pupils will be paid half the lump sum grant payable to the first year pupils, in addition to the fee concessions.

REVIEW OF RELATED STUDIES

P. K. Achuthan “A study of the efficacy of supporting programmes for scheduled caste and scheduled tribe pupils” Thesis. Department of Adult Education and Extension Services, University of Calicut, 2000

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CHAPTER III

REVIEW OF RELATED STUDIES

1. Availability of supporting programmes
2. Utilization of supporting programmes
3. Effect of supporting programmes
4. Problems in the implementation of supporting programmes

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REVIEW OF RELATED STUDIES

Review of related studies is very important in any kind of research. So, the availability and utilisation of adequate sources of related information are essential for a proper research. To know what sources are available in his field of enquiry is a 'must' on the part of every research worker. It helps the investigator to formulate hypotheses, select methods, tool and helps to locate comparative data on the basis of which to evaluate and to interpret the significance of one's findings. Thus the review of related studies is a crucial aspect of the planning of the study and the time spent in such a survey invariably is a wise investment to make the research effective and useful.

The present study as a research project is unique in that it is limited to a very special programme that has relevance only to a limited group and limited regions. It, being a survey of the special programme, has no universal significance or application. As such, the availability of related study too is very limited. However, a sincere attempt was made to gather as much details as possible and also to survey other related studies made in the state as well as in the country. These have been clarified below under appropriate headings

1. AVAILABILITY OF SUPPORTING PROGRAMMES

Yadav (1981) conducted a study of the Scheduled Castes' awareness about the schemes for their educational progress. The major findings were: (i) the urban heads of the families had a higher level of awareness about the educational schemes than the heads of the families in the semi-urban and rural areas. (ii) the students in the urban area had higher awareness than those in the semi-urban and rural areas. (iii) the awareness of the male students was higher than that of the female students in the total sample.

A study of socio-cultural and educational conditions of Adivasis conducted by Joshi (1983) has brought to lime light the pitiable socio-cultural and educational conditions of the Adivasis in Kerala. In addition to the socio-economic conditions of the Adivasis, the study has also covered their literary and educational status. The study is mainly of a survey type with tools like interview schedule for tribal families, socio-economic status scales for the heads of tribal families and rating scales for officers and social workers working in tribal areas and is centred around the socio-economic status of the tribes. Anyhow the educational findings point towards the very low literacy rate of the tribals, lack of school facilities and financial difficulties faced by tribal parents in sending the children to school.

Sreekantan Nair (1985) conducted a critical study on the topic of education of the tribals in Kerala with special reference to Wynad area. The study was mainly designed to scrutinize the progress in the education of the tribals in Kerala in the light of the additional facilities available to them and to examine thoroughly the difficulties and constraints experienced by teachers, tribal parents, and tribal pupils. This investigation and assessment and the conclusions arrived from them were expected to enable to make suggestions for the re-organisation of tribal education in the state.

The specific objectives of the study were: (1) to estimate the educational development of tribals with regard to quantitative expansions; (2) to critically examine the governmental incentives available for the education of tribal pupils; (3) to examine the suitability of the existing school system and curriculum for tribal children; (4) to locate the problems faced by the teachers in the implementation of the educational programmes for tribal children; (5) to make a comparative study of the scholastic attainment of tribal pupils and non-tribal pupils (6) to offer suggestions for the improvement of the educational programmes of tribal pupils.

The most important conclusions were: (1) the tribal pupils are gradually picking up in the matter of education; (2) their enrolment at the pre-matric level is tolerably good. But at the post-matric level, much

progress has to be achieved. Though facilities are available, their present rate of enrolment at the pre-primary stage and for professional and vocational courses cannot be given in the absence of reliable data.

Gogate (1985) conducted a critical study of the availability of scholarships and other financial facilities to Scheduled Castes and Scheduled Tribes in Marathwada.

The main objectives were (i) to ascertain the facts in relation to the availability of scholarships and other financial assistance to Scheduled Caste and Scheduled Tribe students in Marathwada, and (ii) to suggest improvements in the procedure of granting and distributing scholarships to Scheduled Caste students.

Four rural colleges, four urban colleges, four rural schools and four urban schools were selected for the study. An attempt was also made to choose institutions having hostel facilities or institutions at places where there are government hostels.

Some of the important conclusions were (i) As there were schemes of payment of scholarships at the school and college levels, there should be one such scheme at primary level also. During the Nizam regime every backward class boy or girl joining a primary school used to get free education and other facilities such as book, uniform, etc. These facilities

have been discontinued since independence. Such schemes are necessary to raise the level of literacy and education among Scheduled Castes; (ii) there has been no definite scheme of scholarship at the secondary level, except payment of fees. Merit scholarship were paid to a very small number and these were subject to availability of funds; (iii) Hostel facilities were too meagre. As such private institution needed to be motivated to open hostels for students; (iv) Most of the students complained about the non-availability of facilities in Scheduled Caste hostels. The food was invariably bad and students suspected corruption in hostel administration. It was necessary that an inspection panel regularly visited these hostels; (v) Similarly there should be no distinction in regards to payment of grant to Government and non Government Backward Class hostels; and (vi) In spite of Government scholarships and hostel accommodation, many students were not able to show proper progress in studies. This was probably because of poor economic condition at home and lack of facilities in the hostels. Some arrangements for providing guidance and counselling to Backward Class students were needed in large colleges and cities.

Kaldate (1985) conducted a survey of the provision, administration and effective utilization of facilities available to students of Scheduled Caste. The objectives of the study were (i) to examine the extent to which educational and other facilities were available to Scheduled Caste students

of Aurangabad district, and (ii) to make recommendations to improve facilities available to Scheduled Caste students.

The sample comprised of 1200 Scheduled Caste students of Class XI. The main tool was questionnaire.

The major findings were (i) low level jobs and source of earning appeared closely related to low-levels of education of parents; (ii) many students had to live either in private rented rooms or hostels that were away from their family homes. Those who stayed in hostels expressed difficulties such as not getting food in time and lack of facilities in the hostels; and (iii) about 53 percent students reported that they had no separate place for studies. About 81 percent had books for study which they generally borrowed from college libraries. Only 5.33 percent of the students purchased books with their own money. A large number of students were found to have failed in the H.S.C. (XII) examination conducted by Maharashtra Board of Higher Secondary Education.

Kulkarni (1985) examined availability of facilities, such as text books, library, accommodation, food, medical help, etc. to Scheduled Caste students.

The main objectives of the study were (i) to study the extent to which education and other facilities were available to Scheduled Caste students of

Jalana district and (ii) to make recommendations to improve facilities available to them.

Certain important findings were (i) out of 113 students, the parents of 73 were manual labourers while those other 30 were engaged in agriculture. In the case of 57 students, the parents were illiterate, 26 were educated up to class IV, 28 up to matriculation and only 2 were graduates. Almost all families had 6-7 members in the family; (ii) the students had to face a number of difficulties, the main ones being economic. Those who stayed in Government hostels, got free food. Out of 113, only 32 students could get admission in college hostels; (3) 66 students reported that they had a separate study room at their residence. It was, however, found that they merely had a separate room in the house in addition to the kitchen which they considered to be a separate arrangement for study; (4) out of 113 students, 63 had sets of textbooks loaned to them by the college. Others did not have all the books. Seventy three had only note books while 40 others could not afford them.

Sachchidananda, Sinha and Ramesh (1989) conducted a study of Scheduled Castes and Scheduled Tribes with a view to find out how the educational facilities have been used by the target groups and what types of problems are faced by them in the process of education. A questionnaire

was used to collect information. The study suggested reforming of the strategy for the education of the Scheduled Castes and Scheduled Tribes, diverting 50% of the scholarship amount for strengthening school education, making appointment of teachers from the same community in case the school population has more Scheduled Castes and Scheduled Tribes students, ensuring availability of facilities to the most disadvantaged ones, and laying emphasis on education of the educationally most disadvantaged communities.

The study by Gaur (1989) was an ERIC-financed status survey of the special facilities given by the Government for the educational upliftment of the tribal population, and it investigated the attitude of teachers and guardians towards the endeavour. The analysis of information showed that the special facilities provided by the government do influence the development of tribal children. The teachers covered by the study felt that vacations if declared to coincide with the harvesting season, will bring down the absenteeism in the schools. They also advocated training in self-employment for all tribal students and medical facilities for ailing tribal students.

Another study by Gaur (1990) studied the difference between the facilities available and facilities utilised by Scheduled Tribes students of

various sub-communities of the Scheduled Tribes in Rajasthan, between 1984 and 1987. The study was conducted on a sample of 400 Scheduled Tribes students of class VI who belonged to the Mina, Bhil, Garasia, Damor, Baharia and Bhilmina tribes. The researcher noticed that the enrolment in the initial classes was high but was low in the subsequent classes. An important findings of the study was the existence of hardly any relationship between the school curriculum and the traditional occupation and culture of the tribal population. Only two-thirds and one-third of the facilities provided were being availed by Scheduled Tribes boys and girls, respectively.

Thulaseedharan (1996) enquired into the extent and use of welfare measures available to Scheduled Castes and Scheduled Tribe students and their influence on their educational attainments and levels of aspiration. The main objectives of the study were (i) to survey the various welfare measures available to the SC and ST students at the post-matric level and to examine the extent of utilisation of the schemes; (ii) to analyse the educational attainments and the levels of aspirations, and performances of the SC and ST students belonging to the various socio-economic strata; (iii) to study the awareness of the SC and ST parents about the various educational welfare schemes provided for their students, and to analyse

their attitude towards the schemes and (iv) to study the facilities available to the SC and ST students in the post-matric hostels.

The sample selected using stratified random sampling procedure consists of 1010 subjects, which include SC and ST post-matric students (N = 600), SC and ST hostelers (N = 180), SC and ST parents (N = 180) and principals and professors (N = 50).

The following were the major findings of the study: (i) around 30 major welfare schemes are found to be available to SC and ST students (ii) the SC and ST students differ in their preferences for the utilization of the educational grants (iii) the SC and ST students differ in their educational attainments with respect to their residence, parental income and education (iv) most of the SC and ST students have a favourable attitude towards the various welfare measures (v) SC and ST parents differ significantly in their awareness of the welfare measures with respect to the family income and residence (vi) professors and principals hold different opinions about the provisions of welfare measures, their utilization and about the performance of the SC and ST students in both academic and non-academic fields and in the case of their discipline and (vii) the facilities provided in the post-matric hostels are not sufficient.

2. UTILISATION OF SUPPORTING PROGRAMMES

Srivastava (1970) enquired about the utilization of the financial assistance by tribal students. The objectives of the study were (i) to gauge the extent of utilization of financial assistance given by the government to the Scheduled Tribe students, and (ii) to study the factors responsible for the non-utilization or misutilization, if any, of financial assistance.

The universe of the exploratory and diagnostic study comprised the pre-matric tribal students, the officers connected with the schemes and the heads of the educational institutions and boarding houses of the sample states of Assam, Bihar, Madhyapradesh and Tripura. A total number of 660 tribal students was selected and interviewed. Interview schedule and questionnaire were the major tools and observation and interview were the techniques used.

The findings of the study reveals that (i) in many hostels there is shortage of space and furniture, lack of medical care and recreational facilities; (ii) delay in disbursement defeats the very purpose of financial assistance; (iii) delay also leads to misutilization of financial assistance by students, poor attendance and poor performance; and (iv) delay and untimely disbursement of financial assistance, lack of follow-up and

supervision, lack of awareness, poverty and backwardness are major reasons for misutilization of financial assistance.

Solanki (1977) examined the operation of the scheme of providing scholarship to the Backward class students for pursuing studies beyond SSC.

The specific objectives were (i) to examine the advantages accruing to the backward classes in Gujarath from the scheme, and (ii) to obtain suggestion from students and social workers to make the scheme more effective.

A sample of 901 students were selected using random sampling technique. Data collected through a detailed questionnaire.

The main findings were (i) most of the new students (75.13%) came to know about the scholarship only after joining the college, (ii) 82% of the new students and 66% of the old ones did not receive the scholarship amount on time; (iii) monthly scholarship was totally inadequate to meet the expenses of cloths, books and other materials and (iv) the delay in payment of scholarship amount caused considerable financial strain and mental tension among the students seriously affecting their academic work.

Deshpande (1984) conducted a critical study of the nature, scope and effective utilization of the facilities given to students of Backward classes. The major objectives of the study were (i) to collect information about the educational facilities provided to students of Backward classes; (ii) to determine the attitude of the students and teachers towards these facilities; (iii) to compare attitudes of students with those of teachers towards these facilities, and (iv) to study critically the scope, nature and utility of these facilities.

The sample consisted of college students and teachers from Puna. Five hundred and twenty-two students and one hundred and seventy nine teachers were drawn by the cluster and random sampling method respectively.

The study shows that (i) the majority of the students knew about facilities given to backward class students, but many students did not know the details, (ii) there was no difference between the attitudes of male and female students towards these facilities and (iii) the teachers also had a favourable attitude towards this facilities but they were worried about prevailing malpractices. Fifty percent of the teachers strongly disagreed reservation of seats for Backward Classes.

Kamila, Basna Behari (1985) conducted an evaluation study of Harijan and Tribal Welfare Department High Schools in Orissa in respect of student achievement. The major objectives of the study were (i) to investigate the socio-economic background of the students of the Harijan and Tribal Welfare Department High Schools in comparison with Education Department High Schools; (ii) to evaluate the facilities of Harijan and Tribal Welfare Department (H&T.W.D) High schools taking the Education Department High Schools as the criterion, (iii) to evaluate the performance of students at the annual examination in these two types of schools, and (iv) to evaluate the student achievement (attitude, scholastic achievement, personality, characteristics, interest and level of occupational aspirations) of students of H and T.W.D. High Schools taking the students of Education Department High Schools as the criterion.

The major findings were: (i) SC and ST students in H&TWD High Schools in comparison with SC and ST students in Education Department High Schools came from lower socio-economic status though in occupation there was no significant difference; (ii) per capita expenditure for SC and ST students in H&TWD schools was higher; (iii) stagnation was higher in the case of SC and ST group of students; (iv) SC and ST students showed unfavourable attitudes towards school, classmates, teachers,

curriculum and science teaching in those classes where their number was smaller than that of the non SC/ST students; (v) SC and ST students showed marked developed personality characteristics in comparison with other non SC students in H&TWD schools except in punctuality. There was no marked difference in self confidence; (vi) SC and ST students of H&TWD schools showed greater interest in artistic and social service area and (vii) comparison of level of occupational aspirations revealed that SC and ST students in H&TWD schools were inferior in comparison to other non SC/ST in the same school; All SC and ST showed the same result though the non SC/ST students in Education Department High schools and SC and ST students in the same schools showed superiority, but not significantly.

NIEPA (1986) conducted an evaluative study in various incentives and facilities available to Scheduled Castes and scheduled Tribes in ITIs. The main objectives of the study were (i) to analyse the provision and utilization of training facilities in the ITI by the Scheduled Castes and Scheduled Tribe students vis-a-vis non Scheduled Caste/Scheduled Tribe students, (ii) to study the extent of under-utilization, if any, of various training facilities, specially by the Scheduled Caste/Scheduled Tribe students, and reasons for the same, (iii) to identify the various incentive schemes that were available for the Scheduled Caste/Scheduled Tribe

students, pattern of their implementation, and extent of benefits SC/ST students were deriving from such schemes, (iv) to evaluate the impact of training provided by the ITIs on the employment of their trainees, specially the SC/STs in terms of emoluments, waiting time for job, place and nature of employment, etc., and (v) to identify special programmes of industrial training, if any, for the ST students in the institutions located in the tribal areas and also to determine the utilization of such programmes.

Five states of central tribal belt, viz., Andhra Pradesh, Bihar, Gujarat, Madhya Pradesh and Maharashtra were selected for study.

The major findings of the study were (i) though the ITI facilities were available in almost all the districts and the utilization of the facilities by the SCs was nearful, the utilization by the STs was poor; (ii) the unemployment rate varied from 7 percent for the non scheduled group to 13 percent for the scheduled castes and 20 percent for the scheduled tribes; (iii) the self employment rates were very low among all the trainers; (iv) stipend was available to all the Scheduled Castes and Scheduled Tribes but there was always delay in disbursal; (v) hostel facilities for the scheduled groups were found to be substandard in most places and (vi) reservation and relaxations for the Scheduled Caste and Scheduled Tribe groups was there in all the institutions but it was implemented in a mechanical way.

3. EFFECT OF SUPPORTING PROGRAMMES

Lohithakshan (1961) conducted a study to find out the association of social environmental factors with educational backwardness. To experimentally analyse the behavioural tendencies of backward children and to study these children by using socio-metric technique were the other purposes of the study. The results of the study revealed that (i) the educational backwardness was associated with communal backwardness, (ii) poor economic home conditions as well as irregular school attendance were related to educational backwardness, (iii) the pupils of backward groups were significantly lower in intelligence. The findings of the study provided the idea to form the hypothesis; regular attendance and the effect of the special coaching classes are closely related.

Pratap *et al.* (1981) assessed the performance of ashram schools in Tribal areas of Andhra Pradesh. The main objectives were (i) to study the structure and functioning of Ashram schools, (ii) to find out the financial implication of ashram schools, and (iii) to study the shortcomings, if any, in the programme, from the point of view of parents and teachers.

Questionnaire was the main tool. Observation and interview were used as techniques for the collection of data and comparison of percentages was used to analyse the data.

The major findings were (i) most of the Ashram schools were having non-tribal teachers. All the teachers were trained even though their general educational qualifications were low; (ii) a number of schools were not inspected even once in two years; (iii) the necessary adjuncts of ashram schools, viz., playgrounds, small agricultural farms, vegetable and flower gardens and drinking water wells were not provided in all the ashram schools; (iv) only three of the sample schools were having adequate teaching, craft and games equipments; (v) the curriculum of the ashram schools was almost similar to that of other primary schools except for the teaching of craft like spinning, clay modelling, paper cutting, etc., (v) the average percentage of absenteeism was 31.60 while the stagnation index was 38.31 for the ashram schools; (vi) economic and social pull factors like economic activities, domestic work, parent and students indifference, child marriage, etc., were found to be mainly responsible for the prevalence of wastage and stagnation in the ashram schools.

Aruna (1981) conducted a study of the factors influencing the achievement of standard VII students belonging to Scheduled Caste and Scheduled Tribe.

The major objectives were (i) to compare the academic achievement of the Scheduled Caste and Scheduled Tribe students studying in standard

VII with that of general population, (ii) to examine the relationship of intelligence, adjustment and socio-economic status with academic achievement of Scheduled Caste and Scheduled Tribe students, and (iii) to find out the significance and the extent of influence of the selected factors on the academic achievement of Scheduled Caste and Scheduled Tribe students.

From among twenty one educational district of Karnataka, Chitradurga was selected since it had high percentage of both Scheduled Caste and Scheduled Tribe students studying in standard VII.

The tools used for the study were the Achievement Test Battery constructed and standardized for the purpose and Sudha's Socio-Economic Status Scale. The t-test, coefficient of correlation and stepwise regression analysis were used in the analysis of the data.

The major findings were (i) the academic achievement of Scheduled Caste and Scheduled Tribe students studying in standard VII was significantly lower than that of general population (ii) the academic achievement of Scheduled Tribe students was superior to that of Scheduled Caste students (iii) there was significant correlation between the socio-economic status and academic achievement of Scheduled Caste and Scheduled Tribe students.

Muraleedharan Nair (1983) enquired into the effect of special coaching classes for Scheduled Caste and Scheduled Tribe students on their achievement in SSLC examination.

A representative sample of 600 students of Trivandrum district form the sample of the study. Data were collected with the help of questionnaire. The investigator arrived at the conclusion that the special coaching classes for Scheduled Caste and Scheduled Tribe students do not have any significant effect on their achievement at the SSLC level in all the four subjects in which they were conducted.

Sharma (1984) carried out an investigation on the effect of Incentive Schemes on Scheduled Castes, Scheduled Tribes and girls.

The major objective of the study was to find out the effect of different incentives like free uniforms, textbooks and boarding and lodging facilities on enrolment of Scheduled Caste, Scheduled Tribe students and girls.

Random sampling technique was used. One panchayat samiti from each district of Rajasthan was taken up for study.

The study revealed that as a result of the incentives, the increase in enrolment among boys at primary school level was from 60 to 95 percent (all groups) and from 49.2 to 92.7 per cent among Scheduled Caste and Scheduled Tribe. In the case of girls it was from 13.9 to 34.8 percent (all

groups) and for those belonging to Scheduled Caste and Scheduled Tribe, it was 4.6 to 23.1 per cent. Thus the incentive had a positive effect on enrolment.

Jha (1985) conducted an evaluation study of the Hostels and Ashrams for tribal girl students. The main objective of the investigation was to study the organisation, management and functioning of hostels and ashrams established for tribal girl students in Madhya Pradesh and to suggest measures for improving their functioning. The sample of the study consisted of three pre-matric girls hostels, one each in the districts of Raipur, Durg and Mandla and one girl students Ashram in the district of Mandla. The functioning of these hostels was closely observed by the investigator. Along with this, 18 students studying in each of these institutions were interviewed with a view to getting a clear picture of these institutions.

The investigator revealed that (i) the administrative expenditure incurred on the hostels were proportionately quite high; (ii) superintendents of the hostels were neither qualified nor trained to manage them; (iii) the rooms were overcrowded and, in one bed, two girls were accommodated, which was neither psychologically nor healthwise proper. Hostels were lacking in basic facilities like toilet rooms, bathrooms, water

and electricity; (iv) the amount of scholarship given to students was quite inadequate. Some malpractices were also prevalent in this respect.

Sudharmma (1986) conducted a study to find out the efficacy of the following measures adopted for preventing wastage and stagnation. (i) lump sum-grant for Scheduled Caste and Scheduled Tribe students, (ii) monthly stipend for Scheduled Tribe students, (iii) Merit Scholarship for Scheduled Caste and Scheduled Tribe students, (iv) Muslim-girls scholarships, (v) Nadar girls scholarships, (vi) upper secondary scholarships, (vii) physically handicapped scholarships, and (viii) coaching classes for Scheduled Caste and Scheduled Tribe students.

Questionnaire and interview schedules were the major tools for the collection of data. 374 students representing 35 schools of 7 southern districts of Kerala form the sample for the study. The following are the major findings of the study: (i) the coaching classes for Scheduled Caste and Scheduled Tribe students of standard X have been found to be effective in reducing wastage and stagnation in secondary schools and (ii) the meritorious scholarships for Scheduled Caste and Scheduled Tribe students of standard VIII have been found to be effective in reducing wastage and stagnation.

Awasthy (1987) in his study on the 'Relationship Between Education of Scheduled Tribes and their Socio-Economic Mobility', selected the sample from Munda, Oraon and Kharia tribes of the Ranchi and Gumla districts of Bihar. He found that the socio-economic mobility in the Scheduled Tribes increases with the spread of education.

An independent study taken up by Srivastava (1990) was an evaluative study of the 'pre-matric scholarship scheme meant for Scheduled Castes and Scheduled Tribes students'. The results showed inter state variations. The common finding was that not only was the amount of the scholarship inadequate, it was not even disbursed in time. It was also found that the money received by the students was spent for purposes other than educational.

A study of the "Effect of Facilities given by the Government to the Backward Classes pupils in primary schools in Devgad Taluka of Maharashtra" was carried out by Kamble (1992) as a part fulfilment of requirements for the M.Phil. degree. He conducted his study on headmasters and teachers of 25% primary school of Devgad Taluka. Questionnaire and Rating Scale were used to collect data. Kamble found that the facilities provided to students of the backward classes improved their attendance and pass percentage and reduced the drop-out rate.

The study of Saxena *et al.* (1995) titled "School effectiveness and Learner's Achievement at Primary Stage" also found Scheduled Caste and Scheduled Tribe children to be lower than non-Scheduled Castes/Scheduled Tribes children in terms of their achievement in language and mathematics.

Ambast *et al.* (1995) in their study titled, "Effect of Household, Community and School Factors on the Enrolment, Retention and Achievement of Scheduled Tribes children at Primary Level", studied the effect of the cluster of household and school factors on achievement of Scheduled Tribe children. They also tried to study the interstate difference in terms of their impact on the achievement of tribal children. The study suggests that suitably designed research is needed to understand the effect of home background factors such as parental attitude, parents, their education, their language spoken at home and economic conditions of the family on the Scheduled Tribes child's development.

4. PROBLEMS IN THE IMPLEMENTATION OF SUPPORTING PROGRAMMES

Srivastava (1970) conducted a study on the problem of Saoras, a tribe in Orissa. The investigator tried to identify the educational problems of the Lanyia Saora areas of Orissa under five major dimensions: (i) Educational

and administration; (ii) medium of instruction and mother tongue, (iii) wastage and failure, (iv) social economic problems affecting education and (v) cause of illiteracy.

Among the 16 major findings of the study, the fourth one states as "In spite of educational facilities provided by the tribal and rural welfare departments of the Government of Orissa, progress made in the promotion of education among the Saoras is not satisfactory".

George (1975) studied the educational problems of the Scheduled Caste and Scheduled Tribe college students. The major objectives were (i) to study factors that motivate Scheduled Caste and Scheduled Tribe students to go to college; (ii) to study the factors responsible for drop-out of Scheduled Caste and Scheduled Tribe students; and (iii) to study the facilities available to the Scheduled Caste and Scheduled Tribe students and their perception about the same.

The study was conducted on 250 Scheduled Caste and 100 Scheduled Tribe students selected from 23 institutions in six districts of Kerala on a Stratified Random basis, having sex, age, grade marital status and religion as the basis. The data were collected through two interview schedules and an informative proforma. Two of the findings were (i) parents need to be educated about the Government programmes in order to ensure proper

utilization of resources, and (ii) the students need to be educated about the facilities existing and its purposes.

Nayar (1975) enquired into the educational problems of Scheduled Caste and Scheduled Tribe students of Kerala as part of a national study of ICSSR which covered all the states in India. The main objectives of the study were: (i) to assess the types and extent of educational problems of Scheduled Caste and Scheduled Tribe students; and (ii) to make an objective evaluation of Government policies for the education of Scheduled Caste and Scheduled Tribe students.

The sample for the study consisted of 243 Scheduled Caste pupils from 20 schools and 198 Scheduled Tribe pupils from 18 schools of 5 districts. Sample was selected through multi stage randomization. The respondent sample also include 120 teachers and 38 headmasters. The data were collected through questionnaire and interview schedules.

The following were the major findings of the study: (i) a good majority felt that the scholarships were inadequate; (ii) as the financial position improved study hours also increased; on the contrary, as the financial status lowered, study hours also decreased; (iii) the more the hours they spent on study daily, greater was their educational aspiraton; (iv) about three-fourth of the Scheduled Castes and four-fifth of the

Scheduled Tribes, had difficulty in following their teachers. Difficulty of the subjects teaching method of the teachers and unconducive atmosphere of the classes were the reasons for not understanding the classes; and (v) majority of the teachers expressed the view that scholarships and freeships are essential for Scheduled Caste and Scheduled Tribe pupils.

Remana (1985), for his study titled, "Problems of Education among the Tribal Communities of Andhra Pradesh - A case study of Ashram schools", drew a sample of 187 students from six tribal Ashram schools together with their parents and 31 teachers. The study points out that the infrastructure of Ashram school is poor, the teaching-learning process not satisfactory and the absenteeism, stagnation and wastage are high. But the researcher found perceptible impact of the Ashram school on local communities.

The review of the related studies shows that only very few studies have been conducted in the related area. It shows the need for more studies concentrating on different issues associated with the problems of providing equality of educational opportunities to the socially deprived groups. This justifies the relevance of the study undertaken.

METHODOLOGY

P. K. Achuthan “A study of the efficacy of supporting programmes for scheduled caste and scheduled tribe pupils” Thesis. Department of Adult Education and Extension Services, University of Calicut, 2000

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CHAPTER IV

METHODOLOGY

- I. Tools and techniques
 - II. Selection of Sample
 - III. Collection of Data
 - IV. Statistical techniques used
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METHODOLOGY

The purpose of this study is to find out the efficacy of supporting programmes for Scheduled Caste and Scheduled Tribe pupils. For this the investigator decided to examine the efficacy of the Tutorial System introduced in the pre-matric hostels by the Department of Scheduled Caste and Scheduled Tribe Development and the Merit Scholarship Scheme introduced in the schools by the Department of Education.

In the present study the efficacy has been measured in terms of achievement gained by the same group when exposed to the supporting programmes. Hence the investigator resorted to pre-experimental design. In the absence of control group the researcher selected the one-group pre test-post test method. This requires the collection and statistical processing of relevant data with a view to obtain answers to selected objectives. A brief description of the tools and techniques used for the collection of data is given below.

I. TOOLS AND TECHNIQUES

A. TOOLS

1. Achievement Tests

One of the objectives of the study is to find out the efficacy of the Tutorial System introduced in the pre-matric hostels run by the Department

of Scheduled Caste and Scheduled Tribe Development. Under the scheme of Tutorial System, tuition is provided to the inmates of pre-matric hostels studying in VIII, IX and X standards. English, Hindi, General Science and Mathematics are the subjects offered in the Tutorial System. Hence the efficacy of Tutorial System can be determined by testing the achievement in English, Hindi, General Science and Mathematics.

To find out the efficacy of the Tutorial System, the investigator selected the inmates studying in standard VIII, because the difference in achievement before and after the implementation of the Tutorial System can be measured clearly only among these pupils, since the scheme starts from VIII standard. In order to understand the efficacy of Tutorial System with respect to the pupils of standard VIII their level of attainment before and after implementing the Tutorial System has to be assessed. The initial level of behaviour has to be tested based on the syllabus of standard VII and their terminal behaviour have to be assessed based on the syllabus of standard VIII. For this purpose the investigator decided to construct and standardise Achievement Tests based on the syllabus of both standard VII and VIII.

Details regarding the four major steps followed in the construction and standardisation of the Achievement Test, namely, planning, preparation, trying-out and evaluation, are described below.

Planning the test

The first and important step in planning the test is the identification of content area. With this end in view a thorough analysis of the English, Hindi, General Science and Mathematics syllabi and text books of standard VII and VIII was made by the investigator. A group of subject experts and experienced teachers also were consulted. Besides the text books the investigator made use of several source books for selecting items for the test. While designing the blue print the investigator assigned weightage to objectives, weightage to content, weightage to form of questions and weightage to difficulty level of the items.

(a) Weightage to Objectives

A careful analysis of objectives and content was done before designing the test. Bloom (1979) has classified the cognitive domain into six educational objectives viz., knowledge, understanding, application, analysis, synthesis and evaluation and this classification was taken as the guide line.

Cognitive domain is of particular importance at the secondary school level, since school curricular stress is on intellectual development; development of pupils' ability in thinking and reasoning. Thus the test was designed to measure the objectives of three areas of cognitive domain viz., knowledge, understanding and application. In order to assign weightage, the researcher specially designed a "weightage to objective schedule" which was given to 10 experts in the field of English, with a request to assign weightage of objectives viz., knowledge, understanding/ reproduction and expression/application with reference to the relative importance of the units included in the text book of Std. VII and VIII. The same procedure was followed in the case of subject like Hindi, General Science, Mathematics for Std. VII and VIII. The filled up proforma were collected, tabulated and averages found. The weightage to objective thus determined is given in appendices I to VIII. Based on this, the weightages assigned to the objectives on each subject are given in the following tables.

Table 1

**Table showing weightage to objectives - Standard VII
English and Hindi**

Sl. No.	Objectives	English		Hindi	
		Marks	Percentage	Marks	Percentage
1	Knowledge	20	40	16	32
2	Understanding/ Reproduction	10	20	16	32
3	Expression	20	40	18	36
Total		50	100	50	100

Table 2

**Table showing weightage to objectives - Standard VII
General Science and Mathematics**

Sl. No.	Objectives	General Science		Mathematics	
		Marks	Percentage	Marks	Percentage
1	Knowledge	25	50	25	50
2	Understanding	16	32	15	30
3	Application	9	18	10	20
Total		50	100	50	100

Table 3

**Table showing weightage to objectives - Standard VIII
English and Hindi**

Sl. No.	Objectives	English		Hindi	
		Marks	Percentage	Marks	Percentage
1	Knowledge	10	20	15	30
2	Understanding / Reproduction	18	36	17	34
3	Expression	15	30	18	36
4	Comprehension	7	14	--	--
Total		50	100	50	100

Table 4

**Table showing weightage to objectives - Standard VIII
General Science and Mathematics**

Sl. No.	Objectives	General Science		Mathematics	
		Marks	Percentage	Marks	Percentage
1	Knowledge	24	48	27	54
2	Understanding	16	32	15	30
3	Application	10	20	18	16
Total		50	100	50	100

(b) Weightage to Content

Proper coverage of the content is very important because it is through the medium of the content that the objectives are to be achieved. An adequate number of items proportionately distributed over the content will ensure a satisfactory coverage. The researcher specially designed a 'weightage to content schedule' that was given to 10 experts in the field of English including the teachers handling classes in the schools, with a request to assign separate weightages, according to their relative importance to the content area of the English text books prescribed for standard VII. The filled up proforma were collected, tabulated and averages determined. The same procedure was followed in the case of the subjects Hindi, General Science and Mathematics for standard VII and English, Hindi, General Science and Mathematics for standard VIII. The weightages to content schedules are given in appendices IX to XVI.

In language subjects, questions pertaining to vocabulary, articles, sentence patterns, spelling, tenses, prepositions, connectives, gender, number, etc. on the basis of the syllabus prescribed for these standards by the Department of Education, were included. As far as core subjects are concerned achievements were ascertained by assessing competencies, concepts, facts, figures, principles, terms, etc. Details regarding the weightage assigned to various units are given in the following tables.

Table 5

**Table showing weightage to content - Standard VII
English**

Sl.No.	Units	Marks	Percentage
1.	Text	10	20
2.	Elements of Language		
	(a) Vocabulary	24	48
	(b) Structures	16	32
	Total	50	100

Table 6

**Table showing weightage to content - Standard VII
Hindi**

Sl.No.	Units	Marks	Percentage
1.	Text	25	50
2.	Elements of Language:		
	(a) Vocabulary	15	30
	(b) Structures	10	20
	Total	50	100

Table 7

**Table showing weightage to content - Standard VII
General Science**

Sl.No.	Unit	Marks	Percentage
1.	Organisation of living body	6	12
2.	Life Processes - Part I	6	12
3.	Life Processes - Part II	2	4
4.	Food, health and disease	3	6
5.	Materials around us	2	4
6.	Basic Language of Chemistry	3	6
7.	Acids, Bases and Salts	2	4
8.	Air - II	3	6
9.	Water	2	4
10.	Force and Pressure	5	10
11.	Heat	1	2
12.	Light	5	10
13.	Sound	3	6
14.	The Universe	2	4
15.	Man and Environment	4	8
16.	Science and Technology	1	2
	Total	50	100

Table . 8

**Table showing weightage to content - Standard VII
Mathematics**

Sl.No.	Units	Marks	Percentage
1.	Percentage and its applications	8	16
2.	Positive and Negative Numbers	5	10
3.	Some Geometrical Constructions using ruler and compasses	3	6
4.	Operation with positive and negative numbers	4	8
5.	Laws of exponents	7	14
6.	Compound interests	3	6
7.	More about angles	4	8
8.	Parallel lines	1	2
9.	Operations with Algebraic terms	1	2
10.	Algebraic phrases	2	4
11.	Squares and Square roots	4	8
12.	Ratio and proportions	1	2
13.	Triangles and Pythagorian theorems	1	2
14.	Time and distance	1	2
15.	Average	1	2
16.	Family of quadrilaterals	1	2
17.	Open sentences and their solutions	1	2
18.	Fixing the position of a point of a plane	1	2
19.	Graphical representation of classified data	1	2
	Total	50	100

Table 9

**Table showing weightage to content - Standard VIII
English**

Sl.No.	Units	Marks	Percentage
1.	Text	17	34
2.	Elements of Language		
	(a) Vocabulary	14	28
	(b) Structure	12	24
	(c) Comprehension	7	14
	Total	50	100

Table 10

**Table showing weightage to content - Standard VIII
Hindi**

Sl.No.	Units	Marks	Percentage
1.	Text	24	48
2.	Elements of Language:		
	(a) Vocabulary	13	26
	(b) Structures	13	26
	Total	50	100

Table 11

**Table showing weightage to content - Standard VIII
General Science**

Sl.No.	Units	Marks	Percentage
	(a) Physics:		
1.	Introduction to Physics	2	4
2.	Bodies in motion	1	2
3.	Thrust and pressure	1	2
4.	Heat	2	4
5.	Light	4	8
6.	Magnetism	4	8
7.	Electrostatics	2	4
	(b) Chemistry:		
1.	World of Chemistry	2	4
2.	Atoms, Molecules	2	4
3.	Atomic structure	2	4
4.	Chemical bonding	1	2
5.	Language of Chemistry	2	4
6.	Sociometry	1	2
7.	Types of chemical reactions	1	2
8.	Acids, bases and neutralization	4	8
9.	Rocks, minerals and metals	2	4
	(c) Biology		
1.	Introducing Biology	1	2
2.	Adaptations	2	4
3 & 4	The Cell	3	6
5.	Cell Division	5	10
6.	Life processes	4	8
7.	Respiration in organisms	2	4
	Total	50	100

Table 12

**Table showing weightage to content - Standard VIII
Mathematics**

Sl.No.	Units	Marks	Percentage
1.	Sets	6	12
2.	Commercial Mathematics	4	8
3.	More about proportions	4	8
4.	Some Geometric Constructions	1	2
5.	Formation of Geometric Principles	10	20
6.	Algebraic Phrases and Polynomials	3	6
7.	Expansion of Algebraic Expression using identities	3	6
8.	Factorisation using identities	2	4
9.	Square root and cube root	4	8
10.	Mensuration of plane figures	6	12
11.	Simple equations	5	10
12.	Statistics	2	4
	Total	50	100

(c) Weightage to Form of Questions

A good achievement test is expected to cover all the significant objectives of instruction as well as the course content. As a step towards satisfying this requirements, quite a number of objective type, short answer type and essay type questions have been prepared. In order to avoid

According to the data 50% and 60% of marks were assigned to average level questions in language subjects and core subjects respectively, since the majority of the pupils fall in the average category.

Blue Print

After finalising the weightage to objectives, content, type of questions and difficulty level the investigator prepared blue prints as a two-dimensional chart in which units were taken in the vertical axis and behaviour implied by the objectives on the horizontal axis. The details of the blue prints are given in the following tables.

Table 14

Blue Print of the Test in English - Standard VII

Sl. No.	Units	Objectives	Knowledge	Understanding/ Reproduction	Expression	Total
1.	Text		2	8	--	10
2.	Elements of Language as per syllabus					
(a)	Vocabulary					
i	Spelling		5	2	--	7
Ii	Word meaning		6	--	1	7
Iii	Antonyms		--	--	3	3
Iv	Nouns		3	--	--	3
v	Adjectives		2	--	--	2
Vi	Gender		2	--	--	2
(b)	Structure					
i	Relative pronouns		--	--	2	2
Ii	Article		--	--	2	2
Iii	Tense		--	--	4	4
Iv	Preposition		--	--	2	2
v	Gerund		--	--	1	1
Vi	Degree of comparison		--	--	2	2
Vii	Connectives		--	--	2	2
Viii	Sentence pattern		--	--	1	1
	Total		20	10	20	50

Table No.15
Blue Print of the Test in Hindi - Standard VII

Sl. No.	Objectives Units	Know- ledge	Reproduction/ Understanding	Expre- ssion	Total
1.	Text	9	16	--	25
2.	Elements of Language				
(a)	Vocabulary				
i	Spelling	1	--	--	1
ii	Word meaning	1	--	--	1
iii	Antonyms	--	--	1	1
iv	Number	4	--	--	4
v	Word formation	--	--	6	6
vi	Counting number	1	--	--	1
vii	Translation	--	--	1	1
(b)	Structure				
i	Case	--	--	2	2
ii	Word order	--	--	2	2
iii	One word	--	--	1	1
iv	Tense	--	--	3	3
v	Sentence pattern	--	--	2	2
Total		16	16	18	50

Table 16

Blue-Print of the Test in General Science - Standard VII

Sl. No.	Units	Objectives	Knowledge	Understanding	Application	Total
1.	Organisation of living body		3	3	--	6
2.	Life process - part I		4	1	1	6
3.	Life process - part II		--	2	--	2
4.	Food, health and disease		3	--	--	3
5.	Materials around us		--	1	1	2
6.	Basic language of Chemistry		3	--	--	3
7.	Aids, Basic and Salts		2	--	--	2
8.	Air - II		2	1	--	3
9.	Water		1	-	1	2
10.	Force and pressure		1	2	2	5
11.	Heat		1	-	-	1
12.	Light		1	2	2	5
13.	Sound		1	1	1	3
14.	The Universe		1	--	1	2
15.	Man and Environment		2	2	-	4
16.	Science and Technology		-	1	-	1
Total			25	16	9	50

Table 17

Blue Print of the Test in Mathematics - Standard VII

Sl. No.	Units	Objectives	Know- ledge	Under- standing	Appli- cation	Total
1.	Percentage and its applications		4	3	1	8
2.	Positive and negative numbers		4	1	-	5
3.	Some Geometrical Constructions using ruler and compasses		3	-	-	3
4.	Operation with positive and negative numbers		1	2	1	4
5.	Laws of exponents		3	2	2	7
6.	Compound interests		2	1	-	3
7.	More about angles		2	1	1	4
8.	Parallel lines		1	-	-	1
9.	Operations with Algebraic terms		1	-	-	1
10.	Algebraic phrases		-	1	1	2
11.	Squares and square roots		-	2	2	4
12.	Ratio and proportions		-	1	-	1
13.	Triangles and pythagorean theorems		1	-	-	1
14.	Time and distance		-	-	1	1
15.	Average		-	-	1	1
16.	Family of quadrilaterals		1	-	-	1
17.	Open sentences and their solutions		1	-	-	1
18.	Fixing the position of a point of a plane		1	-	-	1
19.	Graphical representation of classified data		-	1	-	1
Total			25	15	10	50

Table 18

Blue Print of the Test in English - Standard VIII

Sl. No.	Units	Objectives	Know- ledge	Reproduction Under- standing	Expre- ssion	Compre- hension	Total
1.	Text		-	17	-	-	17
2.	Elements of Language						
(a) Vocabulary							
i	Spelling		2	1	-	-	3
ii	Word meaning		3	-	-	-	3
iii	Word formation		-	-	3	-	3
iv	Antonyms		-	-	2	-	2
v	Noun		1	-	-	-	1
vi	Adjective		1	-	-	-	1
vii	Pronunciation		1	-	-	-	1
(b) Structure:							
i	Tense		-	-	5	-	5
ii	Article		-	-	1	-	1
iii	Connectives		-	-	1	-	1
iv	Passive voice		-	-	1	-	1
v	Infinitive		-	-	1	-	1
vi	Reflexive pronoun		-	-	1	-	1
vii	Preposition		2	-	-	-	2
3.	Comprehension		-	-	-	7	7
Total			10	18	15	7	50

Table 19

Blue Print of the Test in Hindi - Standard VIII

Sl. No.	Units	Objectives	Know-ledge	Reproduc-tion/ understanding	Expre-ssion	Total
1.	Text		7	17	-	24
2.	Elements of Language					
	(a) Vocabulary					
i	Spelling		2	-	-	2
ii	Antonyms		2	-	2	4
iii	Number		4	-	1	5
iv	Translation		-	-	2	2
	(b) Structure:					
i	Tense		-	-	2	2
ii	Case		-	-	4	4
iii	Word order		-	-	4	4
iv	One word		-	-	2	2
v	Gender		-	-	1	1
	Total		15	17	18	50

Table 20

Blue Print of the Test in General Science - Standard VIII

Sl. No.	Objectives Units	Know- ledge	Under- standing	Applica- tion	Total
	(a) Physics:				
1.	Introduction to Physics	1	-	1	2
2.	Bodies in motion	1	-	-	1
3.	Thrust and pressure	-	-	1	1
4.	Heat	1	1	-	2
5.	Light	2	1	1	4
6.	Magnetism	2	2	-	4
7.	Electrostatics	1	1	-	2
	(b) Chemistry:				
1.	World of Chemistry	1	-	1	2
2.	Atoms, Molecules	-	2	-	2
3.	Atomic structure	2	-	-	2
4.	Chemical bonding	1	-	-	1
5.	Language of Chemistry	2	-	-	2
6.	Sociometry	1	-	-	1
7.	Types of chemical reactions	-	-	1	1
8.	Acids, bases and neutralization	1	1	2	4
9.	Rocks, minerals and metals	-	2	-	2
	(c) Biology				
1.	Introducing Biology	-	1	-	1
2.	Adaptations	1	1	-	2
3 & 4	The Cell	2	1	-	3
5.	Cell Division	2	2	1	5
6.	Life processes	2	-	2	4
7.	Respiration in organisms	1	1	-	2
Total		24	16	10	50

Table 21

Blue-Print of the Test in Mathematics - Standard VIII

Sl. No.	Unit \ Objectives	Know- ledge	Under- standing	Applica- tion	Total
1.	Sets	4	2	-	6
2.	Commercial Mathematics	3	1	-	4
3.	More about proportions	-	2	2	4
4.	Some Geometric Constructions	1	-	-	1
5.	Formation of Geometric Principles	5	5	-	10
6.	Algebraic phrases and polynomials	2	1	-	3
7.	Expansion of Algebraic Expressions using identities	3	-	-	3
8.	Factorisation using identities	-	1	1	2
9.	Square root and cube root	3	-	1	4
10.	Mensuration of plane figures	4	2	-	6
11.	Simple equations	1	1	3	5
12.	Statistics	1	-	1	2
Total		27	15	8	50

Preparation of the Test Items

As the next step the researcher developed the test materials based on the objectives of teaching. The researcher translated the behavioural objectives into test questions that could elicit the types of behaviour, that are to be measured. In order to avoid subjectivity and for greater coverage of content and to make scoring easy the investigator selected objective type multiple choice items.

The researcher referred a number of books and consulted subject experts and school teachers in the preparation of items. Thus 120 items each were pooled for the tests in the four subjects.

Finally 100 items, which is double in number of items required in the blue print were selected for the pilot test in each subject so as to ensure that sufficient number of acceptable items will be available at the end.

Pilot Tests

In order to refine the items to perfection, a pilot study was conducted taking 30 pupils each of standard VII and VIII from Government High School, Tirur. Out of the 30 pupils 15 were boys and 15 were girls in each standard. The pupils were given necessary instructions before administering the pilot tests.

All the score sheets were examined carefully. The defects noted in the tests were corrected. The time allotment for the test was also fixed as one hour and a half .

Try-out Tests

In order to find out the difficulty index and discriminating power of the items, the researcher conducted a try out test. The procedure adopted for the try-out test is described below.

Selection of sample for the Try-out Tests

The investigator selected a sample for the try-out test based on stratified random sampling method. The stratification was done based on Boys-Girls, Rural-Urban and Government-Private. For the try-out tests 400 pupils (Boys 200; Girls 200) each of standard VII and VIII were selected from ten schools in Malappuram District.

Administration of the Try-out Tests

The try-out tests were administered in the third week of February 1995. Before administering the try-out tests, the Headmasters of the schools selected were contacted personally and explained about the need and significance of the study. The students were also informed about the tests. So they were properly motivated for the tests.

The pupils were given the question paper and answer sheet. They were asked to answer all the questions. Most of the pupils were able to complete the tests within the time limit.

Scoring

The response of the subjects were scored using the scoring key prepared by the investigator. Each correct response was given one mark. All the scoring sheets were valued.

Item Analysis

For item analysis the investigator at first went through all the 400 answer sheets. The incomplete answer sheets were rejected. 370 answer sheets from the remaining set were arranged in the ascending order of their scores. The first 100 papers formed the upper group and the last 100 papers formed the low group. These were separated to find out the difficulty value and discriminating power.

The investigator used the following formulas to calculate the difficulty value and discriminating power (Ebel, 1972).

$$\text{Difficulty value} = \frac{U + L}{2N}$$

$$\text{Discriminating Power} = \frac{U - L}{N}$$

where U = Number of correct responses in the upper group

L = Number of correct responses in the lower group

N = Number of pupils in each group

Criteria for selection of items

- (1) The difficulty value was fixed to be between .3 and .6.
- (2) Within the difficulty criteria specified above it was decided to select items with the maximum discriminating power. Items having discriminating power .2 and above were taken.

The difficulty value and discriminating power of each item were examined with the above stipulations. The tables showing difficulty value and discrimination power are given in Appendices XVII to XXIV. Copies of the final tests are given along with its English version of the Mathematics and Science subjects in Appendices XXV to XXXII. Scoring sheet and scoring keys of the final tests are also given in the Appendices XXXIII to XLI

Final Test

Fifty items each for each subject found to be statistically acceptable were selected for final tests according to the blue-print. These items were

arranged at random. Instructions for pupils in answering were also provided. The duration of the tests was 45 minutes and maximum marks allotted was 50. Sufficient number of copies were printed. Separate scoring sheets were also prepared and printed.

Sample for the Final Tests

The investigator selected adequate sample for administering the final tests by using the stratified random sampling technique. The stratification was made based on Government and Private, Rural and Urban and Boys and Girls. The investigator took a representative sample of 1200 pupils each from standard VII and VIII from 20 schools in Malappuram and Kozhikode districts. The details regarding the break-up of the final sample selected (same number for both standards) are given in the following table.

Table 22

Table showing the break-up of the final sample selected for standard VII

Locality Sex	Rural			Urban			Type of Management		Grand Total	Percentage
	Govt.	Pvt.	Total	Govt.	Pvt.	Total	Total Govt.	Total Pvt.		
	(1)	(2)	(3) [1+2]	(4)	(5)	(6) [4+5]	(7) [1+4]	(8) [2+5]		
Boys	155	322	477	45	75	120	200	397	597	50
Girls	155	323	478	45	89	125	200	403	603	50
Total	310	645	955	90	155	245	400	800	1200	
Percentage			80			20	33	67		

Table 23

Table showing the break-up of the final sample selected for standard VIII

Locality Sex	Rural			Urban			Type of Management		Grand Total	Percentage
	Govt.	Pvt.	Total	Govt.	Pvt.	Total	Total Govt.	Total Pvt.		
	(1)	(2)	(3) [1+2]	(4)	(5)	(6) [4+5]	(7) [1+4]	(8) [2+5]		
Boys	165	315	480	45	75	120	210	390	600	50
Girls	160	315	475	50	75	125	210	390	600	50
Total	325	630	955	95	150	245	420	780	1200	
Percentage						20	35	65		

Administration of the Final Test

The researcher visited the selected schools, contacted Headmasters and explained the need and importance of the present study. The pupils were also informed about the test prior to its administration in the class.

The tests were administered during the first half of March, 1995 in standard VIII. Tests in standard VII were conducted in non-Mappila schools in the second half of March, 1995 and in Mappila schools in April, 1995 as these schools were closed in March in connection with Ramzan holidays. The tests were administered with the co-operation and the help rendered by the Headmasters and teachers concerned.

During the data collection process the researcher also collected the mark lists of half yearly examinations in English, Hindi, General Science and Mathematics of 50 pupils from school records of both standard to find out the validity of the prepared tests using it as the external criterion.

Consolidation of Data

On completion of the tests the researcher collected 1200 answer sheets for each subject from VII and VIII standards. Incomplete answer sheets were discarded and 1100 scoring sheets each were selected for final analysis maintaining a proper proportion of boys and girls, sample reduced to one thousand and one hundred.

Scoring procedure

For valuing the answer papers, scoring keys were prepared. It was decided to give one mark for each item. All the 1100 answer sheets were scored using the scoring keys.

Validity and Reliability

The researcher estimated the validity and reliability of the test as they are the two essential characteristics of a good test.

Validity of the present tests

Face Validity: Face validity was established by preparing items in such a way as to measure the objectives of learning English, Hindi, General Science and Mathematics for standard VII and VIII.

Content Validity: Content validity was ensured by clear statement of instructional objectives namely knowledge, understanding and application and also by analysing the content with the help of experts in this field.

Concurrent Validity: Concurrent validity was established empirically by means of statistical techniques using the external criterion of marks in English, Hindi, General Science and Mathematics for both standards in the half yearly examinations.

For this, a sample of 50 pupils each for standard VII and VIII were selected from two different schools representing the pupils from all categories. Half yearly examination marks in English, Hindi, General Science and Mathematics of standard VII and VIII for the same 50 pupils of both standards were also obtained. The Pearson's product moment coefficient of correlation between the two sets of marks in each subject of both standards were calculated. The coefficient of correlation was found by using the formula (Garrett, 1966).

$$r = \frac{Nfx'y' - fx' \times fy'}{\sqrt{Nfx^2 - (fx)^2 \times Nfy^2 - (fy)^2}}$$

where r = co-efficient of correlation

x = marks obtained in half yearly examination

y = scores obtained in the achievement test

N = total number of pupils

The correlation coefficient thus calculated were found to be 0.78, 0.75, 0.75 and 0.74 for standard VII English, Hindi, General Science and Mathematics respectively. The correlation coefficient of the same subjects for standard VIII were found to be 0.75, 0.78, 0.74 and 0.76 respectively.

Since the coefficients of correlation between the two variables were found to be above 0.7 in all tests, the tests have high statistical validity.

Reliability of the Present Test

Test-retest Method

The tests scores of 50 pupils in the final tests for standard VII and VIII in each subject already selected for the calculation of validity were taken. After two weeks time the same tests were again administered to the same pupils, and the scores obtained were recorded. Using the two sets of scores in each subject for standard VII and VIII reliability co-efficients were calculated.

The reliabilities were found to be 0.91, 0.92, 0.90 and 0.84 for standard VII in English, Hindi, General Science and Mathematics respectively. The reliabilities of the four subjects viz., English, Hindi, General Science and Mathematics for standard VIII were found to be 0.90, 0.85, 0.89 and 0.92 respectively. In all cases the value of 'r' is higher than 0.8. This shows that the tests have high reliability.

2. Proforma for collecting marks

Another important objective of the study was to find out the efficacy of the Merit Scholarship Scheme being implemented by the Department of Education. The scheme is intended for the award of scholarships to

meritorious Scheduled Caste and Scheduled Tribe pupils studying in upper primary and secondary levels. Two boys each from Scheduled Caste and Scheduled Tribe and two girls each from Scheduled Caste and Scheduled Tribe in standard V and VIII in a school are selected for the meritorious scholarship on the basis of the marks secured by them in the annual examinations of standard VI and VII respectively. The award will be continued up to standard VII in the case of upper primary pupils and up to standard X for secondary school pupils. Since the investigator selected secondary school section for the study of Merit Scholar Scheme, the researcher selected the secondary school level for the study of the Scheme for convenience.

To find out the efficacy of Merit Scholarship Scheme the investigator selected the merit scholarship awardees of standard VIII, since the scheme starts from standard VIII at secondary school level. Hence the difference in achievement before and after the receipt of award could be measured clearly. The impact of merit scholarship was measured in terms of achievement. This was done by comparing achievements of the pupils before and after the receipt of the merit scholarship. For this purpose instead of preparing a test the researcher depended upon the school marks, since they were readily available in schools.

In order to find out the efficacy of the Merit Scholarship Scheme, the researcher has taken the marks of the first terminal examination and third terminal examination of the recipient of the Merit Scholarship.

The researcher prepared a proforma[†] for collecting the marks of the first and third terminal examinations and other relevant data from the school registers. In this proforma provisions were made to collect details such as, name of school, name of pupil, caste, sex and home addresses in addition to the marks of the terminal examinations. An enquiry was also made to understand whether the pupil got the scholarship at upper primary level. A specimen copy of the proforma is given as Appendix XLII.

3. Socio-Economic Status Scale

The purpose of using the socio economic status scale in the present study was to find out the socio-economic status of Scheduled Castes and Scheduled Tribes and its impact on the education of their children. This variable was taken as the socio-economic status is an important factor influencing achievement. The investigator tried to find out how far the socio-economic status influences the achievement of the merit scholarship winners. The families of the scholarship winners of standard VIII were the subjects for the purpose of this study.

Many socio-economic status scales are available for researchers at present. Kuppuswamy's (Kuppuswamy, 1962) Socio-Economic Status Scale revised and modified by K.S. Pillai has been selected for the present study (Pillai, 1973). Table showing the weightages assigned in the scale is given below.

Table 24

Table showing weightage given in the Socio-Economic Status Scale

Sl. No.	Education	Weightage	Occupation	Weightage	Income per month (Rs.)	Weightage
1	Masters Degree/ Professional Degree and above	10	Professional	10	Above 1000/-	10
2	Bachelors Degree	8	Semi professional	8	751 - 1000	8
3	Pre-Degree/ Pre-University	5	Skilled workers	7	501-750	6
4	S.S.L.C.	4	Semi skilled workers	4	301-500	4
5	Up to Standard VII	2	Unskilled workers/ Labourers	2	101-300	2
6	Literate	1	Un-employed	0	100 and below	1
7	Illiterate	0	--	--	--	--

The investigator felt that the criteria adopted for giving weightage to the income of the families as shown in the table is not suitable at present. It is evident that the wages for all types of jobs have increased from 1973, when the scale was modified to 1996 when the scale is to be administered. Moreover the cost of goods and services have also been increased considerably during this period.

It is clear that the socio economic status of the pupils is influenced by their standard of living. Standard of living is determined by the goods and services they consume. The mode of consumption is influenced by the prices of goods and services and the income of the individuals because they are the determinants of the purchasing power. Since the majority of the population in our society belongs to lower and middle income groups the rise in the price level can affect their standard of living to a great extent. Price hike has its adverse impact on the purchasing power of the major section of the society and is capable to alter their consumption pattern, standard of living and hence their socio-economic status. Unless the income of such groups increases in accordance with the rising prices, it is impossible for them to maintain their socio-economic status.

The devices for measuring the socio-economic status should be in congruence with the price hike in the economy. The criteria for giving

weightages to the income of the individuals should be subjected to occasional modification along with the rising prices. So it was decided to change the criteria in the present scale on the basis of the increase in the cost of living index of Kerala State from 1970 to April 1996 prepared by the Bureau of Economics and Statistics of Kerala Government. Cost of living index or consumer price index indicates the change in the price of a basket of goods and services of a particular period with reference to some fixed (base) period. It enables to understand the changes in the cost to maintain a particular level of standard of living at different times.

According to the Bureau of Economic and Statistics the cost of living of Kerala State has increased by 8.175 times from 1970 to April 1996 (Bureau of Economics and Statistics, 1976). It can be exemplified that an individual having the montly income of Rs.100/- in 1970 should have the monthly income of Rs.817.5/- in April 1996 to maintain his standard of living as in 1970.

The researcher sought the opinion of the experts in the Bureau of Economics and Statistics and educational research about his decision to change the criteria in the present scale for giving weightage to the income. Most of them expressed the opinin that the criteria can be changed by an eight time increase in the level of monthly income in the present scale.

The table showing the new criteria adopted for giving weightage to the level of monthly income in the Socio-Economic Status Scale adopted for the present study is given below.

Table 25

Table showing modified criteria to give weightage to the monthly income in the Socio-Economic Status Scale

Income per month (Rs.)	Weightage
Above 8000	10
6001 - 8000	8
4001 - 6000	6
2401 - 4000	4
801 - 2400	2
800 and below	1

The investigator adopted the norms for classification prepared by Kuppuswamy and modified by K.S. Pillai without any change. It is given in the following table.

Table 26

Table showing Norms of Socio-Economic Status Scale

No.	Class	Points
1	Upper class	Above 25
2	Upper middle class	18 - 25
3	Lower middle class	10 - 17
4	Lower class	Below 10

A copy of the Socio-Economic Status Scale adopted for the study is given in the Appendix XLIII.

B. TECHNIQUES OF DATA COLLECTION

1. Interview

Interview technique also was employed in the present study as a technique. It was used in the study since it was considered as the suitable technique for collecting first hand information about the implementation of the Tutorial System and Merit Scholarship Scheme.

The purpose of the interview was to ascertain the extent and use of supporting programmes available for SC/ST pupils and to identify problems faced in the implementation with a view to give suggestions for remedial measures. It was also used as a device for cross checking the data collected through pretest and post test. The interview was adopted in the present study for collecting information from the wardens of pre-matric hostels and teachers engaged in the special tuition programme in pre-matric hostels, in respect of Tutorial System and the Heads of Schools and class teachers of secondary schools in respect of Merit Scholarship Scheme.

(a) TUTORIAL SYSTEM**(i) Interview with Wardens of Pre-Matric Hostels**

The investigator decided to interview all the wardens of pre-matric hostels selected for the study with a view to collect data regarding the following objectives.

- (a) to find out the extent of facilities provided in pre-matric hostels for the smooth implementation of the Tutorial System.
- (b) to know whether the teachers appointed are qualified and trained.
- (c) to understand the problems faced in the implementation of the Tutorial System, and
- (d). to seek suggestions to improve the infrastructural facilities for the conduct of the Tutorial System.

(ii) Interview with Teachers of the Tutorial System

To certain extent the efficacy of Tutorial System is dependent upon the commitment of teachers engaged in special tuition programme. Hence, the investigator interviewed teachers of the tutorial system with the following objectives.

- (a) to find out the extent and use of teaching learning facilities provided in the pre-matric hostels for the smooth functioning of the Tutorial System.

- (b) to know the utility of the Tutorial System implemented in the pre-matric hostels.
- (c) to understand the problems faced by the teachers in the conduct of the classes of Tutorial System, and
- (d) to gather suggestions to improve the teaching-learning process.

(b) MERIT SCHOLARSHIP SCHEME

(i) Interview with Heads of Schools

The investigator decided to interview the Heads of Schools with the following objectives:

- (a) to know whether the Merit Scholarship scheme has any impact on SC/ST pupils.
- (b) to know whether the Merit Scholarship Scheme is being implemented as per the guidelines issued by the Education Department.
- (c) to understand the problems faced by the heads of schools in the implementation of the Merit Scholarship Scheme, and
- (d) to get suggestions for the improvement of Merit Scholarship Scheme.

(ii) Interview with Class Teachers

The investigator interviewed the class teachers of the Merit Scholarship Scheme with the following objectives:

- (a) to know whether the teachers are aware of the Merit Scholarship Scheme
- (b) to know whether the Merit Scholarship Scheme motivates the pupils
- (c) to understand whether the teachers give any special attention to the award winners and
- (d) to collect suggestions for improvement of Merit Scholarship Scheme.

2. Observation

Observation has been adopted as an effective research technique to gather data directly by the researcher in respect of Tutorial System. The investigator decided to observe the working of pre-matric hostels selected for the study. He also observed some of the classes under the Tutorial System.

The major objectives of the observation of the pre-matric hostels and Tutorial System were

- (a) to see how far the pre-matric hostels are conducive for the proper implementation of the Tutorial System
- (b) to find out how far the provisions laid down in the rules and regulations of the scheme are conducive for the success of the Tutorial System, and
- (c) to locate the extent of the rapport of the teachers with the pupils.

II. SELECTION OF SAMPLE

The major objective of the study was to find out the efficacy of Tutorial System and the Merit Scholarship Scheme. There are 207 pre-matric hostels for Scheduled Caste and Scheduled Tribe pupils in Kerala State. Out of which 99 are under the control of the Directorate of Scheduled Caste Development and 108 are under the Directorate of Scheduled Tribe Development. There are 2375 Government and private aided secondary schools in Kerala. Out of these 983 secondary schools are situated in seven northern districts of Kerala.

The investigator confined his study to seven northern districts of Kerala viz., Trichur, Palghat, Malappuram, Calicut, Kannur, Waynad and Kasargod. A brief note on the procedure adopted in the selection of sample is given below.

1. SELECTION OF SAMPLE FOR THE STUDY OF TUTORIAL SYSTEM

Out of the 207 pre-matric hostels 135 are found in the seven northern districts of Kerala. Since the Tutorial System begins in standard VIII, the pupils of standard VIII staying in pre-matric hostels formed the population of the study. The hostelers in two pre-matric hostels in Kasargod and Palghat districts are Kannada and Tamil medium pupils respectively. Hence, these hostels were excluded from the purview of the study. It was also noted that, there were no standard VIII pupils in certain other pre-matric hostels (N = 14) and some of the hostels were exclusively for primary section pupils (N = 11). Those hostels were also excluded. Another important point noticed was that, the strength of standard VIII pupils in 34 hostels were below 2. Such pre-matric hostels were also excluded for practical purposes. As a result the number of pre-matric hostels suitable for the study was found to be 119. Out of the 119 pre-matric hostels, spread over seven northern districts of Kerala, the investigator selected 74 so as to get a representative sample for the study. In order to select a representative sample for the study, stratified random sampling technique was used and stratification was done based on district, sex and SC and ST as the major strata.

(i) District wise

Considering the number of hostels and number of inmates of standard VIII pupils, due weightage was given to each district. The researcher selected 74 out of 119 pre-matric hostels. An estimated sample of 851 pupils of standard VIII from the 74 selected pre-matric hostels were chosen for the study. The district wise list of the pre-matric hostels selected for the study is given in Appendix XLIV.

(ii) Sex-wise

The ratio in which boys and girls are to be represented was worked out using enrolment figures of boys and girls in the pre-matric hostels of seven northern districts of Kerala during the academic year 1995-96. The enrolment figures were obtained from the Taluk Scheduled Caste development officers and Tribal development officers or from the wardens of pre-matric hostels. The total number of standard VIII pupils staying in pre-matric hostels was 729. The sample for the study was 581 pupils consisting of 319 boys and 262 girls.

(iii) Scheduled Caste and Scheduled Tribe-wise

A representative sample of SC and ST can be obtained only when the two groups are present proportionately to the sample. The population of

standard VIII SC and ST pupils staying in pre-matric hostels in seven northern districts was 729. Out of these 350 were SCs and 379 were STs. The researcher selected 581 pupils out of which 269 were SCs and 312 were STs.

Since there was not sufficient number of pre-matric hostels in urban areas stratification was not made on the basis of locale. Though it was not included in the stratification due consideration was given to urban population while selecting the sample. The district-wise details of pre-matric hostels and the sample for the study is given in table 27.

Table 27

District-wise Details of Pre-matric Hostels and Initial Sample Chosen

Sl. No.	District	No. of Hostels* suitable for study			No. of VIII Std. pupils			No. of Hostels Selected			Number of VIII Std. Pupils						Total Boys	Total Girls	Grand Total
											Scheduled Caste			Scheduled Tribe					
		SC	ST	Total	SC	ST	Total	SC	ST	Total	Boys	Girls	Total	Boys	Girls	Total			
(1)	(2)	(3)	(4)	(5) [3+4]	(6)	(7)	(8) [6+7]	(9)	10	(11) [9+10]	(12)	(13)	(14) [12+13]	(15)	(16)	(17) [15+16]	(18) [12+15]	(19) [13+16]	(20) [18+19]
1	Trichur	7	1	8	46	9	55	5	1	6	21	14	35	0	9	9	21	23	44
2	Palghat	15	13	28	95	127	222	9	8	17	49	24	73	47	43	90	96	67	163
3	Malappuram	10	11	21	62	48	110	7	6	13	15	27	42	18	21	39	33	48	81
4	Calicut	8	4	12	50	26	76	6	3	9	26	22	48	7	17	24	33	39	72
5	Kannur	8	11	19	60	52	112	5	6	11	12	25	37	31	14	45	43	39	82
6	Waynad	1	25	26	10	117	127	1	13	14	10	0	10	70	35	105	80	35	115
7	Kasargod	5	--	5	27	--	27	4	--	4	13	11	24	--	--	--	13	11	24
Total		54	65	119	350	379	729	37	37	74	146	123	269	173	139	312	319	262	581

*No. of hostel suitable for the study means these hostels having standard VIII pupils belonging to SC/ST groups

1(a) Selection of sample for Interview in respect of Tutorial System

The investigator decided to interview all the 74 wardens of pre-matric hostels selected for the study. It was also decided to interview 74 teachers working under Tutorial System.

1(b) Sample for observation (Tutorial System)

The researcher decided to observe all 74 pre-matric hostels selected for the study.

2. SELECTION OF SAMPLE TO FIND OUT THE EFFICACY OF MERIT SCHOLARSHIP .

Out of the 983 secondary schools in the seven northern districts of Kerala 697 secondary schools have primary sections. Hence it was decided to select an estimated sample of 720 pupils (standard VIII) from the 697 secondary schools having primary sections. It was decided to cover all the schools, in order to ensure proper representation of Scheduled Caste and Scheduled Tribe students belonging to rural and urban areas and studying in government and private aided schools.

The district-wise details of the sample for the study is given in the table 28.

Table 28

District-wise details of the initial sample selected for the study of Merit Scholarship Scheme

Sl. No.	District	Scheduled Caste			Scheduled Tribe			Boys Total	Girls Total	Grand Total
		Boys	Girls	Total	Boys	Girls	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) [3+6]	(10) [4+7]	(11) [5+8]
1	Trichur	40	40	80	10	10	20	50	50	100
2	Palghat	30	30	60	20	20	40	50	50	100
3	Malappuram	40	40	80	20	20	40	50	50	100
4	Calicut	45	45	90	5	5	10	50	50	100
5	Kannur	40	40	80	10	10	20	50	50	100
6	Waynad	25	25	50	50	50	100	75	75	150
7	Kasargod	25	25	50	10	10	20	35	35	70
Total		245	245	490	125	125	250	360	360	720

11/11/11

2(a) Sample for Socio-Economic Status Scale

The investigator decided to take all those pupils, who were selected for the study of the impact of Merit Scholarship Scheme, for the administration of Socio Economic Status Scale.

2(b) Sample for Interview (Merit Scholarship Scheme)

The investigator decided to take more than 50% of Heads of Schools and class teachers from among the schools selected for the study of Merit Scholarship Scheme.

III. COLLECTION OF DATA

1. TUTORIAL SYSTEM

(i) Collection of Data through pretest-post test

To find out the efficacy of the Tutorial System, the investigator collected data by administering pre-tests and post tests.

Administration of Pre-tests

To administer the tests effectively, the help and co-operation of the departmental officers and wardens of pre-matric hostels were needed. With a view to ensure their support and co-operation the investigator approached the Director, Directorate of Scheduled Caste Development and

the Director, Directorate of Scheduled Tribe Development and explained the need and significance of the study. As per order No. Dev:C2.7231/95 dated 6.6.1995 the Director, Directorate of Scheduled Caste Development issued instruction to his subordinate officers of seven districts of northern zone of Kerala to render help and whole-hearted co-operation for the successful conduct of the tests. The Director, Directorate of Scheduled Tribe Development also issued an order to that effect vide Letter No. Ed.B3.10632/95 dated 19.6.1995. Copies of the orders are placed as Appendices XLV and XLVI.

Before administering the pre-tests the investigator visited the District Offices of the SC Development and the Project Offices of the Tribal Development of seven northern districts of Kerala, who were requested to give necessary instructions to the Wardens to make necessary arrangement for the smooth conduct of the tests.

The Wardens were made aware of it by the District Officers of SC development and Project Officers of ST development departments in the periodical meeting of the Wardens of pre-matric hostels held in June 1995. They were also requested to do the needful for the successful conduct of the tests citing the order of the Director of the Departments concerned. Above all, the investigator contacted the Wardens of pre-matric hostels by mail so

that the pupils of the particular class (standard VIII) could be informed about the tests and properly motivated. This helped to bring home the importance of the tests prior to its administration in the hostels. According to Ebel "Advance announcements and description of a good test is likely to do more encouragement and effective study than surprise administration of a test" (Ebel, 1966).

The investigator visited all the selected pre-matric hostels in advance, contacted the Wardens and briefed them about the tests. A sealed packet containing question papers and scoring sheets for each subjects were handed over to them.

The investigator noted that the Wardens were very enthusiastic and they offered whole-hearted co-operation and help for the study. The Wardens were requested to conduct the tests before the commencement of the Tutorial System. As such the pre-tests were conducted during the month of July 1995.

Although it was proposed to cover all the 581 inmates of the pre-matric hostels studying in standard VIII only 524 pupil appeared for the test. Out of the 524 pupils some of them did not attend all the four subjects. Hence they were eliminated from the study and the investigator proceeded with the data furnished by 509 pupils.

Administration of Post tests

The post tests were conducted in the 2nd week of March 1996. All the 509 pupils, whose data were used for the study, were covered in the post tests. All the tests were conducted as per schedule and data collected by mail or in person.

The prime objective of the study was to test whether there is any significant difference in achievement between pre-tests and post tests. Hence the researcher did not give a clue about the post test programme at the time of pre-tests. This helped to avoid the possibility of any bias due to the 'previous knowledge' about the post tests.

Sample used for Final Analysis

Although the post tests aimed to cover 509 pupils, the investigator could collect data only from 474 pupils. After a thorough scrutiny of the data sheets the number of data sheets were reduced to 434 for final analysis. It was mainly because of the following reasons:

- (i) Some of them did not attend all the 4 subjects in post test; and
- (ii) Some of the data sheets were incomplete.

The break-up of the data selected for final analysis is given below:

Table 29

Table showing break-up of the data used for analysis

Sl. No.	Category	Boys	Girls	Total
1	Scheduled Caste	102	101	203
2	Scheduled Tribe	100	131	231
Total		202	232	434

(ii) Collection of data through interview

The investigator interviewed 67 wardens of pre-matric hostels and 81 teachers of the Tutorial System and collected first hand information about the pre-matric hostels and the conduct of Tutorial programme.

(iii) Collection of data through observation

The researcher observed all the 74 pre-matric hostels included in the study and collected first hand information about the functioning of the pre-matric hostels and the conduct of the Tutorial programme.

2. MERIT SCHOLARSHIP SCHEME

(i) Collection of Data by using proforma

The investigator prepared a time schedule for the collection of data regarding the school marks and socio-economic status of the merit

scholarship winners from the selected schools. Time fixed for the collection of data was three months i.e., from June to August 1996.

Before the commencement of the data collection, the researcher approached the Director of Public Instruction, Kerala and requested necessary help for data collection. The Director of Public Instruction vide Letter No.D3/1641/96/K.Dis. dated 5.2.1996 instructed the subordinate officers to extend maximum co-operation and support for the research work. A copy of the order is given as Appendix XLVII. During the month of June 1996 the researcher discussed about the study with the District Educational Officers concerned. The District Educational Officers requested the Hedmasters to render necessary help in the collection of data in the periodical conference of Headmasters. The researcher also participated in almost all periodical meetings convened by the DEO's and explained the need and significance of the study as well as the procedure adopted in the data collection process. The printed data sheets such as proforma and Socio-Economic Status Scale were also handed over to the heads of schools concerned at the conference. A self addressed stamped envelope was also given along with written instructions to the heads of schools. It helped the return of the data to the researcher by mail without much delay.

As stated earlier, the researcher decided to cover all the 697 high schools having primary sections in order to ensure proper representation

to Scheduled Caste and Scheduled Tribe, Rural and Urban, Boys and Girls. Constant touch with the heads of schools concerned was maintained by letters or through personal visits. Out of the 697 schools, 275 heads of schools responded with 491 data sheets of pupils. 122 heads of school reported that there were no merit scholarship awardees in standard VIII during the academic year 1995-96. The remaining schools did not respond.

A thorough scrutiny was made of each data sheet. Incomplete or unfilled data sheets were discarded from the study. Hence the number of samples was reduced to 445 for final analysis. The details regarding the data collected is shown in the table below:

Table 30

Table showing district-wise details of samples used for final analysis (Merit Scholarship Scheme)

Sl. No.	District	Scheduled Caste			Scheduled Tribe			Boys Total	Girls Total	Grand Total
		Boys	Girls	Total	Boys	Girls	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9) [3+6]	(10) [4+7]	(11) [9+10]
1	Trichur	24	43	67	2	--	2	26	43	69
2	Palghat	25	30	55	1	2	3	26	32	58
3	Malappuram	26	35	61	1	1	2	27	36	63
4	Calicut	40	31	71	1	1	2	41	32	73
5	Kannur	20	31	51	--	--	--	20	31	51
6	Wynad	27	23	50	24	30	54	51	53	104
7	Kasaragod	9	15	24	1	2	3	10	17	27
Total		171	208	379	30	36	66	201	244	445

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(ii) Administration of SES Scale

The Socio-Economic Status of all the 445 pupils selected for the study to find out the impact of Merit Scholarship Scheme was also studied using the SES scale already described.

(iii) Collection of data through Interview

For this the investigator selected 142 heads of schools (51%) and 152 class teachers (55%) by giving due representation to sex and locale and collected first hand information about the Merit Scholarship Scheme.

(iv) Tabulation of Data

The data collected for the study were sorted out category-wise and arranged separately. Separate registers were used for each category. The responses to the different tools and techniques were carefully tabulated and consolidated in the data registers. Appropriate statistical techniques were used to interpret the data and arrive at a valid conclusions. The details of the analysis and interpretation are given in the following chapters.

IV. STATISTICAL TECHNIQUES USED

The statistical techniques used for the study cover both descriptive and inferential statistics. These are discussed below: All statistical

computations were done with the help of computer, except in the calculations for the standardisation of the Achievement tests.

(i) Arithmetic mean

Mean scores were calculated using the formula (Soman, 1986)

$$M = M' + \frac{\sum fd \times i}{N}$$

where M' = the mid point of assumed average class

$\sum fd$ = sum of the mid point weighted by their frequencies

i = class interval

N = number

(ii) Standard deviation

As an additional statistic for comparing means Standard Deviation also had to be calculated. This was done using the formula:

$$S. D. = i \times \sqrt{\frac{\sum fd^2}{N} - \left(\frac{\sum fd}{N}\right)^2}$$

(iii) Pearson's Product moment coefficient of correlation 'r'

For the purpose of determining validity and reliability coefficients of the tests that were standardised correlation coefficients had to be calculated. This calculation was made using the formula:

$$r = \frac{N \sum fx'y' - \sum fx' \times \sum fy'}{\sqrt{N \sum fx^2 - (\sum fx)^2 \times N \sum fy^2 - (\sum fy)^2}}$$

where

r = coefficient of correlation

x = marks in half yearly examination/test-retest

y = scores obtained in achievement test

(iv) Verbal interpretation of 'r' (Garrett, 1979)

In order to decide whether the correlation coefficients obtained indicated satisfactorily high degree of reliability, verbal interpretation usually used in psychological and educational testing was adopted. It was done using the following criteria.

'r' from 0.00 to \pm 0.20 - indifferent or negligible relationship

'r' from 0.20 to \pm 0.40 - low relationship

'r' from 0.40 to \pm 0.70 - substantial or marked relationship

'r' from 0.70 to \pm 1.00 - high or very high relationship

(v) **Two tailed test of significance of difference between means of large independent group (Ferguson, 1976)**

In order to study the effect of the programme on achievement of pupils the pretest score and post test score had to be compared. For this the two tailed test of significance for mean difference (large sample) was applied.

The critical ratio ('t' value) indicating the significance of mean differences was calculated using the formula:

$$t = \frac{\sum D}{\sqrt{[N\sum D^2 - (\sum D)^2] [N - 1]}}$$

where

- D = The difference between the pre-test and post test scores of each pupil
- $\sum D$ = The sum of the difference between pre and post tests
- D^2 = The square of the D.
- $\sum D^2$ = The sum of the square of the D
- N = Total number of pupils in pre and post tests

The difference between means is said to be significant (not due to chance) depending upon whether the 't'-value exceeds 1.96 at 0.05 level or 2.58 at 0.01 level.

(vi) Classificatory Technique

For deciding whether there is any positive impact on the Merit Scholarship Scheme on the academic performance of the recipients of Merit Scholarship, the performance during the pre-scholarship period and the post-scholarship period had to be compared. Due to practical consideration it was decided that the average of the total marks obtained in all the subjects taken together during the two stages may be considered for comparison. The marks scored during the first term and the third term in Standard VIII were taken as the pre-scholarship and post-scholarship scores respectively. Since these marks were based on non-standardised teacher made tests prepared by different teachers in different schools, it was felt that comparison of means will be not acceptable. A better procedure it was felt would be to compare the percentage of high achievers in the sample, because increasing in their frequencies may be taken as an indication for improvement of academic performance.

In order to make such a classification, the following technique was adopted. The arithmetic mean and standard deviation of the total achievement scores were calculated. Those scores beyond arithmetic mean $+ 1 \sigma$ were taken as high achievers.

After thus deciding the number of high achievers in the total sample as well as the relevant sub samples these were converted into

percentages of the number in the respective groups. Then the percentage of high achievers during the pre-scholarship and the post-scholarship stage were tested for significance in difference. For this the following formula was used.

$$CR = \frac{P_1 - P_2}{\sqrt{PQ \left(\frac{1}{N_1} + \frac{1}{N_2} \right)}}$$

$$\text{Where } P = \frac{N_1 P_1 + N_2 P_2}{N_1 + N_2}$$

$$Q = 100 - P$$

The cut of points of 1.96 and 2.58 of the CR were taken as indication of 0.05 level of significance and 0.01 level of significance respectively.

ANALYSIS AND INTERPRETATION OF DATA

P. K. Achuthan “A study of the efficacy of supporting programmes for scheduled caste and scheduled tribe pupils” Thesis. Department of Adult Education and Extension Services, University of Calicut, 2000

CHAPTER V

ANALYSIS AND INTERPRETATION OF DATA

- Part I Tutorial System
- Part II Merit Scholarship Scheme

ANALYSIS AND INTERPRETATION OF DATA

The study was intended to examine the extent to which supporting systems organised by the Government help in improving the quality of education of SC and ST students. For this purpose a variety of data as already described were gathered. These had to be analysed for drawing meaningful inferences. This has been done under two parts, each containing different sections. These are summarised below:

PART I

TUTORIAL SYSTEM

1. Analysis and interpretation of achievement test scores with reference to the tutorial programme.
2. Analysis and interpretation of the responses to the interview with wardens of the pre-matric hostels and teachers of the tutorial programme.
3. Analysis and interpretation of data collected through observation, of the functioning of the pre-matric hostels and the Tutorial programme.

PART II

MERIT SCHOLARSHIP SCHEME

1. Analysis of the academic performance of the scholarship recipients during the pre-scholarship stage and post-scholarship stage.
2. Analysis and interpretation of data gathered through the SES Scale.
3. Analysis and interpretation of the responses to the interview, with the heads of schools and teachers.

PART I
TUTORIAL SYSTEM

1. ANALYSIS AND INTERPRETATION OF ACHIEVEMENT TEST SCORES

In this part the researcher analysed and interpreted the achievement test scores in English, Hindi, General Science and Mathematics to find out the efficacy of the Tutorial System. For this, as stated earlier, one group, pre test post-test method was used.

Consolidation of the data of the above mentioned subjects for both the standards (Std. VII and Std. VIII) was done with the help of computer, using Statistical Package of Social Science (SPSS). The analysis of these data is attempted below.

1.1 Comparison of the mean scores of total achievement of the pre test and post test for total sample and categorywise

To start with, the total achievement score for each student was arrived at by adding up the scores of the four subjects. Mean, standard deviation and 't'-value of these total achievement scores in pre-test and post test for the total sample (N = 445), Scheduled Caste group (N = 203) and Scheduled Tribe group (N = 231) were found and the means were tested for significance in difference. The results are summarised in Table 31.

Table 31

Result of the Test of significance for mean difference of total Achievement Scores in pre test and post test for the total sample, SC group and ST group

Sl.No.	Category	No. of pupils	Pre test		Post test		t-value	Level of significance
			M_1	σ_1	M_2	σ_2		
1	Total sample	434	71.07	21.67	88.56	25.15	18.80	.01
2	SC Group	203	75.73	24.47	98.26	29.14	15.67	.01
3	ST Group	231	66.97	17.94	80.04	16.99	11.52	.01

Interpretation

The Critical Ratios indicating the level of significance of the mean differences of the total achievement scores in the pre test and post test, for the three groups viz., total sample, SC group and ST group are found to be 18.80, 15.67 and 11.52 respectively. All the 't'-values are greater than the 't'-value required for significance at 0.01 level viz., 2.58. This suggests that the mean achievement at the pre test and post test of all the total sample as well as the two categories of pupils differ significantly. The high 't' value suggests that the difference is substantial. The fact that the mean post test score (M_2) is greater than the pre test score (M_1) indicates that the Tutorial System had favourable impact on the level of scholastic attainment of the total sample included in the study.

1.2 Comparison of the mean scores of the total achievement of Boys and Girls in the Total Sample, in the pre test and post test

The difference between the total achievement mean scores of pre test and post test for Boys and Girls were tested using a two tailed test of significance. The computed Mean, standard deviation and 't' value of achievement in pre test and post test for Boys and Girls are summarised in the following table.

Table 32

Result of the Test of significance for mean difference of the total Achievement Scores in pretest and post test of boys and girls of total sample

Sl.No.	Category	No. of pupils	Pre test		Post test		t-value	Level of significance
			M ₁	σ_1	M ₂	σ_2		
1	Boys	202	64.29	20.78	78.51	22.31	13.20	.01
2	Girls	232	76.97	20.71	97.31	24.23	14.10	.01

Interpretation

The Critical Ratios indicating the level of significance of the mean differences of the total performance scores in the pre test and post test for both the groups, i.e. Boys and Girls are found to be 13.20 and 14.10. These two 't' values are greater than the 't' value required for significance at 0.01 level viz., 2.58. This indicates the pre test and the post test of the two groups

of pupils viz., Boys and Girls differ significantly. The high t-value suggests that the difference is substantial. The mean post scores being higher it could be concluded that the Tutorial System had favourable impact on the level of the scholastic achievement of Boys as well as Girls.

1.3 Comparison of the mean scores of achievement in the pre test and post test for Total Sample - Subjectwise

The mean achievement of the total sample in each of the four subjects, English, Hindi, General Science and Mathematics in the pre test and post test was calculated and each of these was subjected to test of significance for mean difference. The results are contained in Table 33.

Table 33

Result of the Test of significance for mean difference of Achievement Scores in pretest and post test in English, Hindi, General Science and Mathematics, for total sample (N = 434)

Sl. No.	Category	Pre test		Post test		t-value	Level of significance
		M ₁	σ_1	M ₂	σ_2		
1	English	16.65	6.02	20.09	7.01	9.82	.01
2	Hindi	20.16	9.16	26.13	10.26	14.61	.01
3	General Science	16.23	5.44	22.01	6.40	19.67	.01
4	Mathematics	18.03	7.21	20.33	7.15	6.19	.01

Interpretation

The Critical Ratios (t values) indicating the level of significance of the mean differences in pre test and post test for the four subjects, viz., English, Hindi, General Science and Mathematics for the total sample are found to be 9.82, 14.61, 19.67 and 6.19 respectively. All the calculated 't' values are greater than the table value required for significance at 0.01 level, viz., 2.58. The high 't' value indicates that the difference is substantial. The post test mean is greater than the pre test mean. This indicates that tutorial programme had favourable impact on the levels of scholastic attainment in all the four subjects considered, namely, English, Hindi, General Science and Mathematics.

1.4 Comparison of the means of achievement scores of the pre test and post test for total Boys -Subjectwise

The statistical indices and the result of the test of significance used for comparing the achievement of the pre test and post test in English, Hindi, General Science and Mathematics for Total Boys are summarised in the table given below.

Table 34

Result of the Test of significance for mean difference of Achievement in the pre test and post test in English, Hindi, General Science and Mathematics, for Boys (N = 202)

Sl.No	Category	Pre test		Post test		t-value	Level of significance
		M ₁	σ_1	M ₂	σ_2		
1	English	15.01	5.99	17.80	6.56	5.93	.01
2	Hindi	17.15	7.99	21.74	9.49	9.28	.01
3	General Science	15.46	4.87	20.64	6.28	14.07	.01
4	Mathematics	16.66	7.79	18.33	5.69	3.20	.01

Interpretation

It has been noticed that the means of pre test and post test scores differ significantly in all the four subject areas included in the Tutorial System viz., English, Hindi, General Science and Mathematics, the significance being beyond 0.01 level. The high 't' value suggests that the difference is substantial. Though the two-tailed test has been applied, the positive sign of the critical ratios ('t'-values) shows that post test scores are higher. This is an indication to the fact that the Tutorial System had a favourable impact on the level of scholastic attainment of the boys, included in the study, in all the subject areas, viz., English, Hindi, General Science and Mathematics.

1.5 Comparison of the means of achievement scores of the pre test and post test for total Girls - Subjectwise

The obtained statistical values in the pre test and post test in English, Hindi, General Science and Mathematics for total Girls are given in the following table.

Table 35

Result of the Test of significance for mean difference of Achievement in the pretest and post test in English, Hindi, General Science and Mathematics, for Girls (N = 232)

Sl. No.	Category	Pre test		Post test		t-value	Level of significance
		M ₁	σ_1	M ₂	σ_2		
1	English	18.07	5.68	22.09	6.78	7.86	.01
2	Hindi	22.77	9.32	29.95	9.34	11.54	.01
3	General Science	16.90	5.82	23.21	6.27	14.19	.01
4	Mathematics	19.23	6.45	22.06	7.81	5.43	.01

Interpretation

The Critical Ratios (t-values) indicating the level of significance of the mean differences between pre test and post-test in English, Hindi, General Science and Mathematics for total Girls are found to be 7.86, 11.54, 14.19 and 5.43 respectively. All the 't' values are greater than the 't' value required for significance at 0.01 level, viz., 2.58. This shows that the mean achievement of the pre test and post test of the total girls in four subject

areas of Tutorial System, viz., English, Hindi, General Science and Mathematics differ significantly. The high 't' value shows that the difference is substantial. The mean of the post test is higher and this indicate that the Tutorial System had a favourable impact on the scholastic attainment of the girls students of the sample in all the subjects, viz., English, Hindi, General Science and Mathematics.

1.6 Comparison of the mean achievement scores of the pre test and post test for the SC group - Subjectwise

Comparison of mean scores of achievement of pre test and post test in English, Hindi, General Science and Mathematics for SC group was done by testing the significance of mean differences. The details are summarised in the table below.

Table 36

Result of the Test of significance for mean difference of Achievement in the pretest and post test in English, Hindi, General Science and Mathematics, for SC group (N = 203)

Sl. No.	Category	Pre test		Post test		t-value	Level of significance
		M ₁	σ_1	M ₂	σ_2		
1	English	17.36	6.80	21.95	8.23	7.88	.01
2	Hindi	21.35	9.91	30.12	10.69	14.13	.01
3	General Science	17.64	6.35	24.04	7.61	12.77	.01
4	Mathematics	19.38	7.55	22.15	8.62	5.07	.01

Interpretation

When the pre test and post test achievement scores in English, Hindi, General Science and Mathematics for SC group were compared for their educational performance in terms of the mean score obtained, it has been noted that, the 't' values obtained are 7.88, 14.13, 12.77 and 5.07 in the order. All the four 't' values are greater than the 't' value required for significance at 0.01 level viz., 2.58. This shows that the mean achievement of the SC group in the pre test and post test in all the four subjects differ significantly it being beyond 0.01 level. The high 't' value is an evidence to prove that the difference is substantial. The mean of the post test scores is higher, which indicates that the Tutorial System had favourable impact on the level of scholastic attainment of the SC groups in all subject areas included in the Tutorial System.

1.7 Comparison of the mean achievement scores of the pre test and the post test for SC Boys - Subjectwise

In order to further substantiate the above findings the difference between the mean scores of the pre test and post test in the four subjects included in the Tutorial System viz., English, Hindi, General Science and Mathematics was done for the various sub-sections also. To begin with, this was done with boys of the SC group. The computed mean, standard

deviation and 't' value of pre test and post test are summarised below in tabular form.

Table 37

Result of the Test of significance for mean difference of Achievement Scores in the pretest and post test in English, Hindi, General Science and Mathematics, for SC Boys (N = 102)

Sl. No.	Category	Pre test		Post test		t-value	Level of significance
		M ₁	σ_1	M ₂	σ_2		
1	English	16.41	7.57	19.36	8.05	3.61	.01
2	Hindi	17.65	8.42	24.86	10.54	10.25	.01
3	General Science	16.20	5.39	21.45	7.40	10.50	.01
4	Mathematics	17.71	8.17	19.31	6.69	2.58	.01

Interpretation

The Critical Ratios (t-values) indicating the level of significance of the mean differences between the pre test and post test in English, Hindi, General Science and Mathematics for SC boys are found to be 3.61, 10.25, 10.50 and 2.58 respectively. All the 't' values are greater than or equal to the 't' value required for significance at 0.01 level viz., 2.58. This shows that the achievement at the pre test and post test in the four subjects included in the Tutorial System show significant mean difference. Also the means of post

test scores are higher in all the cases. This indicates that the Tutorial System had an impact on the scholastic attainment of the SC boys in all the subject areas of Tutorial System such as English, Hindi, General Science and Mathematics.

1.8 Comparison of the achievement mean scores of the pre test and post test for SC girls - Subjectwise

Statistical indices and the result of test of significance used for comparing the achievement of the pre test and post test in English, Hindi, General Science and Mathematics for SC girls are given in the table below.

Table 38

Result of the Test of significance for mean difference of Achievement Scores in the pretest and post test in English, Hindi, General Science and Mathematics, for SC Girls (N = 101)

Sl. No.	Category	Pre test		Post test		t-value	Level of significance
		M ₁	σ_1	M ₂	σ_2		
1	English	18.33	5.80	24.56	7.59	7.79	.01
2	Hindi	25.09	9.94	35.43	7.88	10.29	.01
3	General Science	19.10	6.91	26.65	6.92	8.79	.01
4	Mathematics	21.06	6.49	25.02	9.40	4.43	.01

Interpretation

As far as the SC girls are concerned, it has been noticed that the means of the pre test and post test differ significantly in all the four subjects covered by the Tutorial System, viz., English, Hindi, General Science and Mathematics, the significance being beyond 0.01 level. The 't' values indicating the level of significance of the mean difference being 7.79, 10.29, 8.79 and 4.43 respectively. The difference may be qualified as substantial. The higher mean scores for post test in all the subjects indicates that the Tutorial System had a positive impact on the scholastic achievement of the SC girls in all the four subjects.

1.9 Comparison of the Mean Achievement scores of the pre test and post test for the ST group - subject-wise

Comparison of mean scores of the achievement of pre test and post test in English, Hindi, General Science and Mathematics was done for the ST group as well. The difference between the mean of pre test and post test in each subject was tested using two tailed test of significance. The results are contained in Table 39.

Table 39

Result of the Test of significance for mean difference of Achievement Scores in the pretest and post test in English, Hindi, General Science and Mathematics, for ST group (N = 231)

Sl. No.	Category	Pre test		Post test		t-value	Level of significance
		M ₁	σ_1	M ₂	σ_2		
1	English	16.02	5.17	18.46	5.21	6.02	.01
2	Hindi	19.11	8.31	22.63	8.44	7.21	.01
3	General Science	14.99	4.12	20.23	4.40	15.88	.01
4	Mathematics	16.97	6.90	18.63	4.99	3.22	.01

Interpretation

When the mean achievement scores of pre test and post test in English, Hindi, General Science and Mathematics was compared for ST group, the critical ratios indicating the level of significance were found to be 6.02, 7.21, 15.88 and 3.22 respectively. All the four 't' values are greater than the 't'-value required for significance at 0.01 level viz., 2.58. This shows that the mean achievement of the group in the pre test and post test, in all the four subjects differ significantly, the significance being beyond 0.01 level. The high 't' value suggests that the difference is substantial. This indicates that the Tutorial System had a favourable impact on the

scholastic attainment of the ST group in all the subject areas of the Tutorial System viz., English, Hindi, General Science and Mathematics.

1.10 Comparison of the mean achievement scores of the pre test and post test for ST Boys - Subjectwise

Mean, standard deviation and 't' values of achievement in pre test and post test for ST boys in four subject areas of Tutorial System viz., English, Hindi, General Science and Mathematics were found for the purpose of comparison. There are given in the following table.

Table 40

Result of the Test of significance for mean difference of Achievement Scores in the pre test and post test in English, Hindi, General Science and Mathematics, for ST boys (N = 100)

Sl. No.	Category	Pre test		Post test		t-value	Level of significance
		M ₁	σ_1	M ₂	σ_2		
1	English	13.59	3.23	16.21	4.02	5.70	.01
2	Hindi	16.65	7.53	18.56	7.02	3.26	.01
3	General Science	14.71	4.17	19.81	4.77	9.39	.01
4	Mathematics	15.58	7.25	17.33	4.25	2.06	.05

Interpretation

The Critical Ratios (t values) indicating the level of significance of the mean differences between scores obtained in pre test and post test in English, Hindi, General Science and Mathematics for ST Boys are found to be 5.70, 3.26, 9.39 and 2.06 respectively. These values indicates that of the four subjects three viz. English, Hindi and General Science show significant difference, it being beyond the 0.01 level. In the case of Mathematics, the difference is at 0.05 level of significance (CR = 2.58 at 0.01 level and 1.96 at 0.05 level for $N = 100$). In all the cases the mean of the post test scores are found to be more. In other words, tutorial programme is found to have a positive impact on the levels of scholastic attainment of the ST boys in all the four subject areas.

1.11 Comparison of the mean achievement scores of the pre test and post test for ST Girls - Subjectwise

The Critical Ratios ('t' values) indicating the difference between the mean achievement scores in the pre test and post test were determined for the four subject areas covered by the Tutorial System viz., English, Hindi, General Science and Mathematics, in respect of ST Girls, also were determine, are given in the following table.

Table 41

Result of the Test of significance for mean difference of Achievement Scores in the pre test and post test in English, Hindi, General Science and Mathematics, for ST girls (N = 131)

Sl. No.	Category	Pre test		Post test		t-value	Level of significance
		M ₁	σ_1	M ₂	σ_2		
1	English	17.87	5.60	20.18	5.38	3.69	.01
2	Hindi	20.98	8.42	25.73	8.13	6.61	.01
3	General Science	15.21	4.08	20.55	4.09	13.05	.01
4	Mathematics	17.82	6.08	19.79	5.32	3.23	.01

Interpretation

The Critical Ratios indicating the level of significance of the mean difference of the performance scores obtained by the ST girls, at the pre test and post test in English, Hindi, General Science and Mathematics are found to be 3.69, 6.61, 13.05 and 3.23 respectively. All the calculated t-values are greater than the table value required for significance at 0.01 level viz., 2.58. This suggests that the mean achievement scores at the pre test and post test in all the subjects differ significantly. The high 't' value suggests that the difference is substantial. In all cases the means of the post test score are found to be higher. This indicates that the tutorial system had favourable impact on the level of scholastic attainment of the ST Girl's group, in all the subject areas covered by the Tutorial System.

1.12 Comparison of the means of the Total Achievement scores of the pre-test and post test of total SC boys, SC girls, ST boys and ST girls

The total achievement scores, taking the scores of all the four subjects together were determined and the mean, standard deviation and t values of these scores in pre test and post test were found out for the four categories of students viz. total SC boys, total SC girls, total ST boys, total ST girls were found and are given in the following table.

Table 42

Result of the Test of significance for mean difference in the total Achievement Scores in the pre test and post test of total SC boys, total SC girls, total ST boys and total ST girls

Sl. No.	Category	No. of pupils	Pre test		Post test		t-value	Level of significance
			M_1	σ_1	M_2	σ_2		
1	Total SC boys	102	67.97	25.00	84.99	26.74	10.81	.01
2	Total SC girls	101	83.85	21.34	91.66	25.14	12.27	.01
3	Total ST boys	100	60.53	14.50	71.91	13.91	8.00	.01
4	Total ST girls	131	71.88	18.79	86.24	16.55	8.57	.01

Interpretation

The critical ratios indicating the level of significance of the mean difference of the total performance scores in the pre tests and the post tests

for the four groups viz., SC boys, SC girls, ST boys and ST girls are found to be 10.81, 12.27, 8.00 and 8.57 respectively. All the t-values are greater than the t-values required for significance at 0.01 level viz., 2.58. Also, the mean scores are higher for the post test. This suggests that the mean achievement at the pre-test and post-test of all the four category of pupils differ significantly and that the tutorial programme had a positive effect on the achievement levels of students. The high t-value suggests that the difference is substantial. This finding is found to be true in the case of all the four groups considered for comparison.

2. ANALYSIS AND INTERPRETATION OF THE RESPONSES OF THE INTERVIEW WITH WARDENS AND TEACHERS OF THE TUTORIAL SYSTEM

2.1. Analysis of responses of wardens of pre matric hostels

In order to gather more relevant details about the programmes, it was decided to gather first hand information from those personnel who were directly involved in the conduct of the programme. It was felt that this would not only throw more light in the nature of the programme but also help to gather feedback from which improvements could be suggested by identifying problems and difficulties. With this end in view the investigator interviewed the wardens of the pre-matric hostels and teachers of the Tutorial system. Various aspects such as physical facilities, facilities

available for learning, difficulties found in the implementation etc. were brought under the purview of the interview. In addition to this the interview was so designed as to cross check the data collected through pre-test and post-test. The results of the interview are analysed and interpreted below under proper headings.

The major objectives of the interview with wardens of pre-matric hostels were:

1. to find out the extent of facilities provided in pre-matric hostels for the smooth implementation of the Tutorial system.
2. to know whether the teachers appointed are qualified and trained.
3. to understand the problems faced in the implementation of the tutorial system and
4. to seek suggestions to improve the infra-structural facilities for the conduct of the tutorial system.

The investigator visited all the pre-matric hostels selected for the study at the time of administration of the pre test/post test. During these visits the investigator could interview 67 out of 74 wardens of the pre-matric hostels. The responses gathered from them are analysed below.

2.1.1. Extent of facilities

(i) Accommodation facilities

Almost all wardens (98%) of pre-matric hostels stated that accommodation facilities provided in the pre-matric hostels in general as well as for the conduct of classes under the tutorial system in particular are quite inadequate. No separate hall or room is provided for the conduct of classes in any of the pre-matric hostels. While in certain hostels visitors' room is used, in certain others, dormitory or varandha is used for this purpose.

(ii) Availability of furniture

Majority of the wardens (92%) opined that adequate furniture required for the conduct of classes such as bench, desk, table and chair are not provided. Whatever furniture is available is not being repaired periodically. Some of the wardens said that they are getting the furniture repaired meeting the expenditure from their own pockets.

(iii) Supply of teaching-learning materials

Teaching learning materials like blackboard, chalks, maps, charts, globes, work books, etc. are not provided sufficiently. Certain hostels are provided with dictionaries. Many of the wardens stated that, essential

materials like 'chalk' required for the conduct of the classes are purchased spending money from their own pockets. Almost all wardens stated that the pupils are not provided with notebooks, though there is a provision in the scheme to supply a dozen note books of 200 pages for an year.

Interpretation

Though there is provision for tutorial system in all pre-matric hostels, the basic facilities required for the successful implementation of the scheme such as accommodation, furniture and teaching-learning materials are not provided.

2.1.2. Teachers

(i) Non-availability of trained teachers

Most of the wardens stated that majority of the teachers appointed are untrained hands. Out of the 267 teachers working in the tutorial system, 138 are untrained graduates (52%). Most of the untrained hands are seen in Palghat and Wynadu districts. In these districts 30 out of 56 teachers (54%) and 32 out of 50 teachers (64%) respectively were found to be untrained. The percentage of untrained teachers in Calicut, Trichur, Kasaragode, Malappuram and Kannur districts were found to be 32, 39, 40, 45 and 48 respectively. Almost all the wardens opined that this factor adversely affects the success of the Tutorial System.

(ii) Non-availability of Mathematics teachers

Some of the wardens stated that graduates with optional subject other than Mathematics are appointed as mathematics teachers. This phenomenon is common in all districts and especially in Wynad and Palghat.

(iii) Delay in appointment of teachers

Another complaint of the wardens is that the appointment of teachers is much delayed. This is mainly due to the non-availability of mathematics teachers in the locality.

Interpretation

The investigator verified the opinion of wardens in respect of the appointment of untrained teachers with the Taluk Scheduled Caste Development Officers and Tribal development officers. According to them the untrained teachers are appointed due to the non-availability of retired high school teachers or trained hands in the locality. In the absence of graduates with Mathematics optional, the appointing authorities are forced to select persons qualified in science subjects to handle mathematics classes in the Tutorial System. The search for qualified persons for mathematics in the locality creates undue delay in the appointment of teachers in certain

hostels. The finding of the pretest-posttest study on the impact of the Tutorial System, shows that, except in the case of Mathematics performance of ST pupils show an increase that is significant at 0.01 level (Table 40). ST pupils are concentrated in Wynad and Attappadi region of the Palghat district. The shortage of trained hands in Mathematics and the delay in appointment of teachers are seen mostly in these districts. Hence this might have influenced the performance of ST pupils.

2.1.3. Problems of implementation

(i) Non availability of sufficient number of pupils

The number of inmates in the pre-matric hostels is becoming less year by year, which creates problems to get required number of pupils in the Tutorial System in certain pre-matric hostels. This phenomenon is seen mostly in Palghat and Malappuram districts. Many of the wardens of the pre-matric hostels in these two districts opined that, this trend is due to the following reasons: (1) lack of parental awareness about the pre-matric hostels, (2) lack of facilities provided in the pre-matric hostels and (3) unwillingness of the heads of school to issue transfer certificate (T.C.) to pupils, who wish to join the feeder school of the pre-matric hostels. This is because of their fear that, this may lead to 'division fall' and subsequent reduction in the number of posts of teachers.

(ii) Degradation of academic standard due to long vacation

The level of academic standard of the boarders of the pre-matric hostels is found to become low due to the long mid-summer vacation. Spending two months long vacation in the impoverished home environment counter acts with the motivation created by the teachers of the Tutorial System among the pupils.

(iii) Lack of dedication of teachers

The success of the Tutorial system depends upon the contentment and commitment of the teachers. One of the problems faced by the Tutorial System is the non-availability of committed, talented and spirited teachers. The delayed distribution of remuneration adversely affects their morale. This is bound to indirectly affect the success of the scheme.

(iv) Shortage of teachers in the locality

Shortage of teachers in the locality of the pre-matric hostels is also a major problem, especially in hilly areas like Wynad and Attappadi regions of the Palghat district. Some of the wardens opined that the local teachers are more committed than teachers from distant places.

(v) Administrative delay

According to some of the wardens of pre-matric hostels, the administrative delay in allotment of funds, disbursement of remuneration

to teachers and distribution of teaching-learning materials to the pre-matric hostels are also problems that stand in the way of the smooth functioning of the Tutorial System.

Interpretation

The problem of non-availability of required number of pupils in pre-matric hostels can be solved by creating awareness among the parents of SC/ST pupils, by providing adequate facilities in pre-matric hostels so as to make them more attractive than their homes and also by giving necessary directions to the heads of schools to issue transfer certificates (T.C.) to those who wish to get admission to the feeder school* of the pre-matric hostels in order to join these institutions. The problem of lowering of standard due to the long vacation can be solved by arranging vacation classes also. Teachers should be selected in advance and given proper training in order to equip them properly. The investigator felt that the appointing authorities have no other way than to select teachers from distant places. The administrative delay can be avoided if the higher officials in the Department give more attention to the scheme.

* feeder school: here it means, schools situated near the pre-matric hostels.

2.1.4. The suggestion offered by the wardens of pre-matric hostels

While gathering the above information, the wardens were asked to provide their suggestions for remediating the drawbacks. These suggestions are listed under two sub-headings for convenience: (a) general suggestions to improve the physical facilities of the pre-matric hostels and (b) specific suggestions to improve the learning facilities of the Tutorial System.

(a) General Suggestions

(i) Construction of buildings for pre-matric hostels

The overall facilities of the pre-matric hostels are not conducive for living and learning, especially in those hostels that are run in rented buildings. Most of the owners of these buildings do not conduct annual repairs and maintenance due to the non receipt of the rent from the Department for many years. Hence, almost all wardens of pre-matric hostels suggest construction of own buildings with modern facilities for pre-matric hostels.

(ii) Provision for furniture

Sufficient number of cots, beds, mats, etc. are not provided in the pre-matric hostels. Some of the wardens reported that one cot is being

shared by two inmates. This is unhealthy and undesirable. Hence, they suggest that sufficient furniture should be provided in the pre-matric hostels.

(iii) Timely increase of Mess allowance

Another important suggestion put forth by the wardens of pre-matric hostels is to enhance the mess allowance in accordance with the standard of living of the people as well as the living index.

(b) Specific suggestions to improve academic facilities

(i) Vacation classes

Almost all wardens suggest the introduction of vacation classes since spending of long summer vacation in home situation disintegrates the motivation of the pupils.

(ii) Appointment of teachers

Inadequate and belated appointment of teachers is not at all helpful for the smooth running of the Tutorial System. Hence they advocate timely appointment of teachers in all subjects included in the scheme.

(iii) Timely disbursement of funds

The success of the Tutorial System depends upon the timely disbursement of funds allotted for the scheme. The past experience in this regard is gloomy. All the wardens suggest that prompt action be taken in this regard.

(iv) Wide publicity regarding the admission

Some wardens strongly suggest to give wide publicity regarding the admission to the pre-matric hostels and other provisions given in the hostels through mass media.

(vi) Evaluation of the scheme

Conference of the teachers engaged in the Tutorial System and wardens of the pre-matric hostels should be convened by the Taluk Scheduled Caste Development Officer/Tribal Development officer, in order to evaluate the scheme periodically.

Interpretation

Most of the suggestions putforth by the wardens of the pre-matric hostels regarding physical facilities and learning facilities are from their practical experience and are highly acceptable and recommendable.

2.2 Analysis and interpretation of the responses of the interview with teachers of the tutorial system

The objectives of the interview with the teachers of the Tutorial System were:

1. to find out the extent and use of teaching learning facilities provided in the pre-matric hostels for the smooth functioning of the Tutorial System;
2. to gather feedback of their assessment of the effectiveness of the Tutorial System.
3. to understand the problems faced by the teachers in the conduct of the classes under the Tutorial System, and
4. to gather their suggestions for improving the teaching learning process.

With the above objectives in mind the investigator interviewed 81 out of the 268 teachers (30%) engaged in the Tutorial System. They were asked to express their views regarding facilities as well as effectiveness of the programme. These opinions were then subjected to analysis.

2.2.1 Facilities

The first aspect studied was instructional facilities. These were studied under two heads as indicated below.

(i) Extent of facilities

Most of the teachers opined that the extent of teaching learning facilities provided in the pre-matric hostels for the Tutorial System is quite inadequate.

(ii) Use of facilities

The teachers stated that they try their best to pool the resources available to make teaching learning process systematic and effective. In the absence of necessary audio-visual aids, they resort to improvised materials. Some of them stated that, they prepare their own materials such as charts, maps, etc., to compensate the scarcity.

Interpretation

Regarding the extent and use of teaching-learning facilities provided in the Tutorial System, the teachers revealed that the teaching-learning facilities provided in the pre-matric hostels for the smooth functioning of the Tutorial System are inadequate. It is appreciable that some of the teachers use improvised materials while some others make their own materials for the benefit of the pupils.

2.2.2. Effectiveness of the programme

This point was intended to gather the opinions of teachers as to the desirability of the programme in terms of their effectiveness in improving learning standards. Their views in this regard follows.

(i) Extent of motivation provided

The programme is found to motivate the participants to learn better.

(ii) Helps to provide pre-requisites

Many of the students become backward because of gaps in their previous achievements. By providing pre-requisites, the classes under this scheme help the pupils to cope-up with the regular classes in schools and thus better their academic performance.

(iii) Develop self confidence

The boarders of the pre-matric hostels come mainly from socially, economically and educationally deprived sections of the society and hence they lack self confidence. This scheme helps to develop self-confidence, in them, which in turn helps in enhancing scholastic attainment.

(iv) Assisting in Home work

The classes in the Tutorial System help the pupils to do their home work, project work, composition work, etc., given by the regular teachers.

This helps them to gain recognition from the teachers and thus improves their self respect.

(v) Clearing doubts

Almost all teachers engaged in the Tutorial System consider that this scheme provides an opportunity to clarify the doubts of the pupils in school learning, in a more free and friendly atmosphere. This helps them to learn effectively and confidence thus gained acts as a strong reinforcer.

Interpretation

As far as the utility of the Tutorial System is concerned, opinions of all the teachers are positive and they recommend the continuance of this scheme. They considered that it motivates learning, helps to cope up with school learning, develops self confidence, assists in home work and in clearing doubts. Thus the programme helps acquire better scholastic achievement by the pupils. The findings of the pretest-post test analysis, conducted in order to find out the impact of the Tutorial System also indicates (Table 31) that the Tutorial System had a favourable impact on the levels of scholastic attainment of the pupils included in the study.

2.2.3. Unfavourable conditions

The opinions of teachers about conditions that are found to diminish the effectiveness of the programme were also called for. These are listed below.

(i) Unscientific approach

The Tutorial system is intended for pupils studying in standard VIII, IX and X. Pupils of the three levels are kept as a single group. Almost all teachers opined that teaching pupils studying in three different standards together in a class is most unscientific. This also creates a lot of problems to the teachers.

(ii) Handling subjects other than the area of specialisation

Some of the teachers working in Wynad district and Attappadi region of Palghat district stated that they have to handle subjects other than their area of specialisation due to the non-availability of teachers in the subject concerned.

(iii) Slow learning

Most of the teachers are not satisfied with their class because the pupils are much below their expectations. Since the academic background is poor, their progress in learning is also very low. Lecture method is least effective as far as these groups are concerned. The activity oriented education is more effective. But this requires a lot of teaching learning materials, which are not available in the pre-matric hostels. Absence of these teaching learning materials stands as a hurdle in adopting the method of learning by doing.

(iv) Lack of time

Only 50 hours of instruction is being imparted for all the four subjects together in a month. Almost all teachers working in the Tutorial System opined that this duration is not sufficient for the smooth conduct of the Tutorial system.

Interpretation

In the Tutorial system, instruction is being imparted to the boarders studying in standard VIII, IX and X together in a class. This creates a lot of difficulty for teachers. This approach is unscientific and affects the slow learners adversely. Handling subjects other than the areas of one's specialisation is also a major problem, that affects the achievement of the pupils. The time allotted for this scheme is not sufficient to achieve the goals of the Tutorial system. In view of the findings of the pretest-post test analysis (Table 31) that the classes in the Tutorial System had a favourable impact on the levels of the scholastic achievement of the pupils included in the study. It can be concluded that positive steps in remedying the difficulties would make the programme still more effective.

2.2.4. Suggestions made by Teachers

The teachers interviewed were asked to provide concrete and specific suggestions for improving the effectiveness of the tutorial system. They suggest five different steps. These are summarised below.

(i) Separate class for each standard

Majority of the teachers in the Tutorial System suggested that classes for pupils of standard VIII, IX and X should be conducted separately.

(ii) Extention of Tutorial System to upper primary level

As regards the scholastic attainment of the pupils included in the Tutorial System, the teachers revealed that, the basic and fundamental linguistic competencies such as identification and recognition of letters; reading, writing and comprehension; and mathematical competencies such as addition, subtraction, multiplication and division are not achieved in lower standards at satisfactory level. Hence, their important task becomes filling up these gaps in the pre-requisites for learning new items. If this scheme is introduced in upper primary level too, this difficulty can be reduced to a considerable extent.

(iii) Strengthening of Library

Most of the teachers pointed out that the existing library facilities are quite inadequate. They suggest that the library facilities should be improved by adding children's literature, which would help to develop creative reading and conscientization.

(iv) Supply of adequate teaching learning aids

Almost all teachers suggested that adequate teaching learning aids should be provided for the Tutorial System. These should include Handbooks, Work books, Graph books, Drawing books, Drawing pencils, Water colour boxes, Instrument boxes, etc., for the effective functioning of the Tutorial System.

(v) Enhancement and timely disbursement of remuneration

Almost all teachers involved in the Tutorial System stated that the remuneration for teachers is inadequate. Many of them stated that even the nominal remuneration is not being disbursed in time. They suggest enhancement and timely disbursement of remuneration as one of the most important requirement for making the programme effective.

Interpretation

All the suggestions given by the teachers involved in the Tutorial System are highly valid and helpful for the improvement of the Tutorial System. Hence, these suggestions should be an eye opener to the authorities entrusted with the implementation of the scheme.

3. ANALYSIS AND INTERPRETATION OF DATA COLLECTED THROUGH OBSERVATION OF THE PRE-MATRIC HOSTELS AND TUTORIAL SYSTEM

Observation was also employed in the study as a supplementary technique. It was used for collecting first hand information about the scheme under study. For this the investigator observed 74 out of the 119 pre-matric hostels during his visit for the conduct of pre-test and post-test. The investigator also observed some of the classes under the Tutorial System.

Observation was included as a means for cross checking the data gathered by interviewing the wardens of Pre-matric hostels and teachers of the Tutorial System. It was also used for cross-checking the findings of the pretest-posttest, regarding impact of the Tutorial System.

The major objectives of the observation of the pre-matric hostels and Tutorial Systems were:

1. to see how far the pre-matric hostels are conducive for the proper implementation of the Tutorial System.
2. to find out how far the rules and regulations of the scheme are conducive for the success of the Tutorial System, and
3. to locate the extent of rapport of the teachers with the pupils.

The major outcomes of the observation are presented below in accordance with the objectives cited above.

3.1. Facilities

Facilities were studied both from the points of view of availability and use. The facilities thus studied belong to different aspects such as living conditions, learning conditions, etc. These are summarised below:

(i) Living facilities

From the observation of the pre-matric hostels, the investigator could confirm the opinion of the wardens about the inadequacy of the physical facilities required for comfortable living. There are not sufficient rooms for pupils in almost all pre-matric hostels whether run in government buildings or in rented buildings. The 6 pre-matric hostels run in newly constructed government buildings with modern amenities only are

exception to this rule. Sufficient cots, beds, mats etc., are not seen provided in majority of the pre-matric hostels.

The pre-matric hostels for ST at Pothukal in Malappuram district is a typical example for this. The hostel is run in a small rented building. There are no basic amenities in the hostel. This is only a common latrine for staff and pupils, and that itself is in unhygienic condition. There is no bathroom, therefore the pupils have to bath^e in the open by the side of the well. There is no separate kitchen in the building and hence a portion of a living room is used for cooking. The dust and smoke from the choola fills the room creating suffocation to pupils. The office is functioning in the store room which also serve^s as a study room for pupils.

The other striking point noted is that, the house owner is compelling the warden of the Pothukal pre-matric hostel to vacate the building. To expedite the vacating of the hostel from their building, the owner of the building creates a lot of problems. A cowdung pit is made in front of the hostel. A fencing is also made with barred wire closely around the hostel building preventing the pupils from using the surroundings. An interesting point revealed by the warden of that pre-matric hostel is that, the owner of the building is a Panchayat member, a social worker and also a school manager.

It is also seen that, most of the owners of the rented buildings have not conducted annual repairs and maintenance work due to the non receipt of rent from the Department for long years.

(ii) No class room for Tutorial System

None of the hostels are provided with separate rooms for conducting classes under the Tutorial System. It is found that the visitor's room (if available), dormitory, varandha, etc. are used for conducting classes in many of the hostels. In one of the hostels, the office room and store room functioning in a common room also serve as a room for conducting classes under the Tutorial System.

(iii) Provision for furniture

On close observation, it is found that adequate furniture is not provided in the pre-matric hostels, for the efficient functioning of the Tutorial System.

(iv) Use of dictionaries

The inmates of certain pre-matric hostels are provided with dictionaries. But it is noted that nobody uses it for learning while some of them uses it as a pillow.

(v) Use of Library

Though there is provision for a library, no library is seen to be maintained properly. Only 7 hostels have small shelves to keep library books. In all other pre-matric hostels, the library books are kept in small a box or on a desk or table. All books are very old and in disposable conditions. New books especially children's literature are not provided in any of the pre-matric hostels.

(vi) Use of Television and Radio

Fourteen pre-matric hostels are provided with Television. But most of the TV sets are not in working condition at the time of the visit of the researcher. The wardens exercise certain control in the viewing of the TV programmes by the boarders. 12 hostels are provided with radios. But most of the radio sets are out of order.

Interpretation

From the above analysis of the data collected through observation, it is clear that the living condition as well as learning facilities provided in the pre-matric hostels are not adequate and hence it is not conducive for the successful implementation of the Tutorial System. However, the findings of the pre-test-post-test analysis (Table 31) suggests that the classes under the

scheme had a favourable impact on the levels of the scholastic achievement of the pupils. If the physical as well as learning facilities were provided in the pre-matric hostels for the effective functioning of the Tutorial System, the level of the scholastic achievement of the pupils, included in the study would have been still better.

3.2. Factors associated with the conduct of classes

Another area subjected to observation was the real conduct of the classes, their monitoring and supervision. The results are summarised below.

(i) Conducting classes to the pupils of Std. VIII, IX and X together

From the observation of some of the classes under the Tutorial System, it is noted that the classes are conducted together for the pupils of Std. VIII and IX or for Std. VIII, IX and X. This is found to be most unscientific and ineffective. A typical example for such type of a class is given below.

While observing a class in the pre-matric hostel at Pinarai in Kannur district, one pupil of Std. VIII raised a doubt to the teacher based on their Mathematics lesson. At the same time another boy studying in Std. X also went near the teacher and asked his doubts based on his mathematics

lesson. This created disturbance to the class as well as frustration to both the pupils and teacher.

(ii) Extra attention towards SSLC pupils

In a close observation, it was found that the teachers are giving more attention to SSLC pupils (Std. X). When enquired about it, the teachers of the Tutorial System and wardens of the pre-matric hostels reported that the higher authorities force them to increase the percentage of result in the SSLC examination. The extra attention and emphasis given to the pupils of Std. X adversely affects the progress of the pupils studying in standard VIII and IX.

(iii) Visit of Higher authorities

The scrutiny of the hostel records such as visitors diary, inspection book, and attendance register shows that the Taluk Scheduled Caste Development officers used to visit the hostels frequently. A few hostels are seen visited by Shri. T. Thankappan I.A.S., then Director of Scheduled Tribe Development. But no other authorities are seen to have visited and supervised the classes under the Tutorial System. The regular supervision of the warden is appreciable.

Interpretation

Conducting classes together for pupils studying in different standards (ie. Std. VIII, IX and X) is found to be ineffective. This is found to be most unscientific too.

The extra attention given to the SSLC pupils, is also found to be a problem, which adversely affects the total success of the Tutorial System. The laxity on the part of Department officers in supervising the scheme regularly, is also a lapse, which affects the success of the implementation of the scheme.

3.3. The extent of rapport of the teachers with the pupils

Still another aspect that was brought under the purview of observation was the class climate which is an important factor in an extension programme like the Tutorial System. Three factors were studied under this. The findings are summarised below.

(i) Rapport between teachers and pupils

It is observed that most of the teachers have very good rapport with the pupils. Some of them even have an empathic attitude towards the learners.

(ii) Class time

The classes in all pre-matric hostels except the pre-matric hostels at Kodungallur for Boys and Hostel for girls are conducted in the evening. Almost all wardens stated that, evenings are more suitable than the morning hours. It is also suitable for the teachers engaged in the scheme.

(iii) Method of teaching

Almost all teachers, engaged in the Tutorial System use the lecture method. No one uses the project method, which would have created enthusiasm and developed creativity. Non-availability of the teaching aids was also noted during the observation of the classes.

Interpretation

Even though the physical conditions and learning facilities are not provided adequately for the Tutorial System, the rapport between teachers and pupils is found to be good. This helps to develop motivation among the pupils for learning.

PART II**MERIT SCHOLARSHIP SCHEME****1. ANALYSIS OF THE ACADEMIC PERFORMANCE OF THE SCHOLARSHIP RECIPIENTS DURING THE PRE-SCHOLARSHIP STAGE AND POST-SCHOLARSHIP STAGE**

As the first step in this analysis the academic performances of the recipients of Merit Scholarship during the pre-scholarship period and the post-scholarship period were compared. This was done in tune with the methodology already described in chapter IV. Accordingly the number of high achievers were determined with respect the following groups, during the two stages.

1. Total sample (N = 445)
2. Total SC group (N = 379)
3. Total ST group (N = 66)
4. Total boys (N = 201)
5. Total girls (N = 208)
6. SC boys (N = 171)
7. SC girls (N = 208)
8. ST boys (N = 30)
9. ST girls (N = 36)

The number of high achievers were then converted into percentages and the percentages of the pre-scholarship stage and post-scholarship stage were compared for significance in the difference of percentages. The results of tests are summarised in Table 43.

Table 43

Table showing the consolidated results of test of significance for percentage difference in pre-scholarship stage and post-scholarship stage in respect of Merit Scholarship Scheme

Sl.No.	Category	Pre-Scholarship Stage			Post-Scholarship Stage			CR Of difference In percentage	Level of significance
		Number of pupils	Number of High Achievers	Percentage (P ₁)	Number of pupils	Number of High Achievers	Percentage (P ₂)		
1	Total sample	445	55	12.36	445	63	14.15	0.788	NS
2	SC group	379	56	14.78	379	51	13.46	0.52	NS
3	ST group	66	10	15.15	66	7	10.61	0.778	NS
4	Total boys	201	23	11.44	201	26	12.94	0.46	NS
5	Total girls	244	36	14.75	244	32	13.11	0.524	NS
6	SC boys	171	20	11.70	171	23	13.45	0.136	NS
7	SC girls	208	34	16.35	208	28	13.46	0.828	NS
8	ST boys	30	4	13.33	30	2	6.67	0.859	NS
9	ST girls	36	7	19.44	36	5	13.88	0.633	NS

NS = Not Significant

Interpretation

It is seen from the results that none of the nine groups shows any significant difference in the percentage of high achievers, which has been taken as an indication of the impact of the Merit Scholarship Schemes on the academic performance of the recipients of the scholarship. This findings doesn't agree with what the heads of schools and teachers reported at the time of the interview. They have opined that the recipients of the scholarship were found to be more motivated and systematic in their studies than the non recipients of incentive. But this effect is not found to be reflected in their level of attainment.

A feasible explanation to this unexpected findings cannot be given on the basis of the data gathered. This could be possible only if a scientific study concentrating on the continuous performance of the recipients of scholarship is undertaken.

However, since all the heads of the institutions concerned and the teachers of these institutions^{are} almost unanimously certifying that receipt of the scholarship is being reflected in their personal habits, behaviour in the classroom, relation to teachers, etc., it could expected that if the teachers provide more systematic and continuous monitoring specially geared to academic performance, there would be a positive impact on that aspect too. But this is only a hypothesis at this stage.

**2. ANALYSIS AND INTERPRETATION OF THE RESPONSES
TO THE SOCIO-ECONOMIC STATUS SCALE**

On the basis of the SES scores obtained, pupils were classified into four categories, namely, those getting a score above 25, between 18 and 25, between 10 and 17 and below 10. The number of pupils in the different categories with their percentage is given in the following table.

Table 44

Classification of the recipients of scholarship on the basis of their SES

Sl. No.	Classification	No. of Pupils	Percentage
1	Upper Class	4	0.90
2	Upper Middle Class	36	8.09
3	Lower Middle Class	121	26.97
4	Lower Class	284	64.04
Total		445	100

It is noted that majority of the recipients of Merit Scholarships among the SC/ST group belong to lower class (64.04%) and lower middle class (26.97%).

3. ANALYSIS AND INTERPRETATION OF THE RESPONSES TO THE INTERVIEW WITH HEADS OF SCHOOLS AND CLASS TEACHERS OF THE MERIT SCHOLARSHIP WINNERS

As stated earlier the interview technique was also employed in this study as a supplementary technique for drawing meaningful conclusions about the impact of the Merit Scholarship Scheme. The interview was mainly meant to gather details on the study habits, behaviour and relevant desirable personality traits. The responses of the interview with the heads of schools and class teachers have been analysed and interpreted below.

3.1 Analysis and interpretation of responses to the interview with heads of schools

The major objectives of the interview with the heads of schools were:

1. to know whether the Merit Scholarship Scheme had any influence on SC/ST pupils, as perceived by the heads of the institutions.
2. to know whether the scheme is being implemented as per the guidelines issued by the Department of Education.
3. to understand the problems faced by the heads of schools in the implementation of the Merit Scholarship scheme, and
4. to consolidate suggestions for the improvement of the Merit Scholarship Scheme.

Since the sample selected for the study of Merit Scholarship Scheme was spread over 275 schools, the investigator selected 142 (51%) heads of schools to collect data regarding the objectives mentioned above. The responses of the interview are analysed and interpreted below.

3.1.1. Responses of the heads of schools regarding influence of the merit scholarship scheme

(i) Attendance in classes

Most of the heads of schools stated that the frequency of absence from classes is normally high among SC and ST pupils. But as far as the Merit Scholarship winners are concerned (both SC and ST pupils), this tendency is very rare.

(ii) Personal neatness and neatness in the maintenance of academic record

Almost all heads of schools opined that, they have noted a highly satisfactory personal neatness among the awardees than that of other SC/ST pupils. Their note books, text books, etc. are also seen to be neatly and more systematically maintained.

(iii) Behaviour towards teacher

Most of the heads of schools stated that the Merit scholarship winners behave well towards the teachers when compared with other SC/ST pupils.

Interpretation

From the above discussion, it can be seen that the heads feel that in regularity of attendance, and in relevant personality traits the scholarship recipients are found to be superior to their non recipient counterparts.

3.1.2. Responses of the heads of schools regarding the implementation of Merit Scholarship Scheme**(i) Awarding Merit Scholarship to pupils other than SC/ST**

The Merit Scholarship Scheme is intended purely for SCs and STs. But it was found that the Merit Scholarships were awarded to pupils belonging to other eligible communities (OEC) also by a few heads of schools. It is against the norms of the scheme.

(ii) Denial of awards

As per regulation, the scholarship once awarded is to be continued till the completion of the particular stage of study, i.e., the scholarship first

awarded while in Standard VIII will have to be stopped only on completion of Standard X, provided they show satisfactory progress. But some of the Heads of schools stated that they used to select fresh students for the award every year from standard IX and standard X too as in the case of standard VIII. This has resulted in the denial of Merit scholarship to some of the deserving pupils, who had already been awarded merit scholarship in standard VIII.

(iii) Absence of Progress Monitoring

Almost all heads of schools admitted that they are neither monitoring the progress of academic achievement nor maintaining cumulative progress reports of the Merit Scholarship winners. It seems they are renewing the scholarships on the assumption that scholarship winners are regular in their studies.

Interpretation

Awarding Merit Scholarship to pupils other than SC/ST, denial of the continuance of the scholarship in standard IX and X to those who have already got it in standard VIII, and non maintenance of cumulative progress report are irregular and are against the norms of the Merit Scholarship Scheme. This spoils the spirit and essence of the scheme. This shows the implementing authorities are not familiar with the guidelines of

the scheme and the scheme is being implemented not strictly adhering to the rules and regulations.

3.1.3. Responses regarding the problems faced by the Heads of Schools in the implementation of the Merit Scholarship Scheme

(i) Delay in distribution of Merit Scholarship

Fresh and renewal proposals of Merit Scholarship have to be submitted to the District Educational Officers concerned every year. Almost all the heads of schools stated that the submission of the proposal for fresh Merit Scholarship is much delayed due to various reasons. The main reason resulting in such a lapse is the absence of fixed time schedule. Almost all the heads of schools stated that there is no time schedule fixed for the submission of proposals and for sanctioning of funds. This stands in the way of effective implementation of the Scheme.

(ii) Delay in distribution of Merit Scholarship

Almost all heads of schools complained that they are getting the scholarship amount belated and hence they can not distribute the money in time.

Interpretation

Delay in selection of awardees, delay in submitting fresh and renewal proposals for sanctioning Merit Scholarship to the higher authorities, the belated sanction of fund and delayed distribution of scholarship to the recipients defeat the very purpose of the Merit Scholarship Scheme.

3.1.4 Suggestions given by the Heads of schools for the improvement of Merit Scholarship Scheme**(i) Relaxation of Minimum Marks**

Many heads of schools stated that they are not getting required number of SC and ST pupils (two SC/ST boys and two SC/ST girls) for the award of merit scholarship. This is because of the restriction in minimum marks. The scholarship is now given only to those who have secured more than 45% marks in aggregate in the annual examination of standard VII. This minimum level fixed should be lowered to 40 percent.

(ii) Enhancement of the number of Merit Scholarship

Another proposal made by the heads of schools is to increase the number of scholarships. Two SC/ST boys and two SC/ST girls are being selected from a school at present as per guidelines of the scheme. Even if in some of the schools, there are a number of SC/ST pupils, those who satisfy

the marks restriction only two SC/ST boys and two SC/ST girls are being selected now. Hence some of the pupils, those who score high marks, have to be denied the benefit of the scheme. In order to overcome this situation the number of scholarships should be increased at least to 4 SC/ST boys and 4 SC/ST girls.

(iii) Enhancement of Scholarship Amount

Almost all respondents opined that the scholarship amount should be enhanced. Some of them said that the amount given is not sufficient even for purchasing a school bag.

(iv) Timely disbursement of Merit Scholarship

The heads of schools also suggested that, the scholarship should be given during the first month of the academic year so as to motivate the pupils from the very beginning.

(v) Evaluation of the progress

One of the head of schools suggested that, meeting of merit scholarship winners, their parents and class teachers should be convened periodically to assess the progress.

Interpretation

The relaxation of minimum marks and increase in the number of the Merit Scholarships, will help to extend the benefits of the scheme to more SC/ST pupils. Enhancement and timely distribution of Merit Scholarship will also help to motivate the pupils. Evaluation should be made an integral part of the scheme.

3.2. Analysis and interpretation of responses to the interview with class teachers

The major objectives of the interview with the class teachers of merit scholarship scheme were:

1. to determine whether the teachers are aware of the existence and functioning of Merit Scholarship scheme
2. to know whether the expected motivation from the merit scholarship scheme is reflected in the classrooms.
3. to understand whether the teachers give any special attention to the scholarship winners, and
4. to pool the suggestion for improvement of merit scholarship scheme.

The investigator interviewed 152 teachers selected from 275 schools coming under the purview of the study in order to get responses regarding the objectives listed above. In selecting the sample due representation was given to factors like sex, locale and type of management. The responses of the interview with the class teachers of the merit scholarship winners have been analysed and interpreted below.

3.2.1. Teachers' awareness about the Merit Scholarship Scheme

As regards the awareness of the teachers about the Merit Scholarship scheme it is noted that all teachers except a small minority (8%) are aware of the scheme.

3.2.2 Extent of Motivation

Majority of the teachers (72%) stated that the Merit Scholarship is found to motivate the pupils to study more regularly. At the same time 20 percent of teachers opined that the scholastic attainment of the pupils cannot be attributed to the award of the merit scholarship, there are many other reasons influencing it.

3.2.3. Special attention to the award winners

(i) Special attention through rewards

Majority of the teachers (56%) stated that they encourage the award winners by reinforcing them with approval, by presenting children's literature for reading or by making them group leaders.

(ii) Discussion with parents

Some of the teachers (22%) opined that they hold discussion with parents of merit scholarship awardees, when they approach them. They feel that this adds to the self confidence of the parents as well as the pupils. The teachers also stated that, the frequent discussion with the parents of the awardees help them to understand the parental awareness about the merit scholarship scheme, and to know the problems faced by the parents in the education of their children.

Interpretation

The provision of reinforces and frequent discussions with the parents of the awardees are seen helpful to improve self confidence among the pupil as well as the parents. It is also noted that, frequent discussions with the parents of the awardees would help the teachers to understand (i) parental awareness about the scheme (ii) parental involvement in the

education of their children and (iii) the problems faced by the parents in the education of their children. Majority (53%) of the parents are unaware of the real purpose of the Merit Scholarship Scheme though they are getting the amount from the school. If they establish frequent dialogue with the teachers, that would provide an opportunity to understand the scheme in its true spirit.

3.2.4. Suggestion for improving the merit scholarship scheme

(i) Discussion for creating better awareness

Some of the teachers (21%) stated that they are not aware of the exact nature of the scheme and suggested conducting discussions to provide awareness.

(ii) Periodical meetings

Some of the teachers suggested that it will be fruitful to conduct periodical meetings of the Merit Scholarship winners, their parents and teachers to discuss the problems of the pupils regarding their studies.

(iii) Enhancement of Merit Scholarship amount

As regards the enhancement of the merit scholarship amount, almost all teachers are of the opinion that it should be enhanced.

Interpretation

The suggestions put forth by the teachers regarding the improvement of Merit Scholarship scheme, such as discussion for creating awareness among teachers, periodical meeting of teachers, award winners and their parents to develop self confidence, enhancement of scholarship amount to cope up with modern times, etc., should be an eye opener to the planners of the General Education Department.

SUMMARY OF PROCEDURE, CONCLUSIONS AND SUGGESTIONS

P. K. Achuthan “A study of the efficacy of supporting programmes for scheduled caste and scheduled tribe pupils ” Thesis. Department of Adult Education and Extension Services , University of Calicut, 2000

CHAPTER VI

SUMMARY OF PROCEDURE, CONCLUSIONS AND SUGGESTIONS

1. Statement of the problem
2. Objectives of the study
3. Procedure of the study
4. Administration of tools and collection of data
5. Summary of the findings
6. Suggestions for implementation
7. Suggestions for further research

SUMMARY OF PROCEDURE, CONCLUSIONS AND SUGGESTIONS

This chapter provides a resume of the present investigation, the major findings of the study, suggestions based on the study and the suggestions for further research.

1. STATEMENT OF THE PROBLEM

The problem for investigation is entitled as 'A STUDY OF THE EFFICACY OF SUPPORTING PROGRAMMES FOR SCHEDULED CASTE AND SCHEDULED TRIBE PUPILS.'

2. OBJECTIVES OF THE STUDY

The major objectives of the study were:

- (i) to find out the efficacy of the Tutorial system provided in the pre-matric hostels run by the Scheduled Caste and Scheduled Tribe Development Department.
- (ii) to find out the impact of the Merit Scholarship Scheme introduced by the Department of Education.
- (iii) to find out the socio-economic status of Scheduled Caste and Scheduled Tribe, who are recipients of merit scholarship, with a view to examine their distribution in the various levels of SES.

- (iv) to ascertain the extent and use of supporting programmes available for Scheduled Caste and Scheduled Tribe Pupils.
- (v) to identify the problems faced in the implementation of supporting programmes with a view to give suggestion for remedial measures.

3. PROCEDURE OF THE STUDY

(A) PRE-EXPERIMENTAL DESIGN

For the present study the investigator selected the pre-experimental design. In the absence of control group in the present study, the investigator selected the one group, Pretest-Post test method.

(B) TOOLS USED IN THE STUDY

The following tools were prepared or modified and used by the investigator for the present study.

(i) Achievement Tests

The investigator himself constructed and standardised the following tests to find out the efficacy of Tutorial System.

- (a) Achievement test in English for Standard VII.
- (b) Achievement test in Hindi for Standard VII.
- (c) Achievement test in General Science for Standard VII.

- (d) Achievement test in Mathematics for Standard VII.
- (e) Achievement test in English for Standard VIII.
- (f) Achievement test in Hindi for Standard VIII.
- (g) Achievement test in General Science for Standard VIII.
- (h) Achievement test in Mathematics for Standard VII.

(ii) Socio-Economic Status Scale (SES)

The Socio-Economic Status Scale (SES) prepared by Mr. Kuppuswamy and modified by Sivadasan Pillai was adopted with certain modifications and used for the study.

(iii) Proforma

The researcher prepared a proforma for collecting marks of the first and third terminal examinations of the recipients of Merit Scholarship.

© TECHNIQUES USED IN THE STUDY

(i) Interview techniques

Interview was employed in the present study as a supplementary technique. It was used, for getting first hand information about the various aspects of the schemes. It was used also for cross-checking the findings of pre-test, post-test, used with respect to the tutorial system. The cross-

checking of the results in the first terminal examination and third terminal examination to find out the impact of Merit scholarship Scheme. The wardens of the pre-matric hostels and the teachers were the interviewees.

(ii) Observation

The investigator used observation also as a supplementary technique for the study of Tutorial system. This technique was used as it was considered most suitable for getting first hand information about the conditions of the pre-matric hostels. This was used also to cross check the findings of the pretest-posttest as well as the results of responses gathered by interview.

D. SAMPLE

(i) Sample selected for the study of Tutorial System

The investigator selected 434 pupils (Std VIII) from 74 pre-matric hostels of seven northern districts of Kerala for the present study. He selected 67 wardens and 81 teachers for interviewing and observed 74 pre-matric hostels.

(ii) Sample selected for the study of Merit Scholarship Scheme

A sample of 445 Merit Scholarship winners were drawn from 275 high schools, having primary section, by stratified random sampling technique.

The sample selected (N=445) for the study to find out the impact of Merit scholarship scheme was used also to find out the socio-economic status of the Merit Scholarship winners. Since the sample selected for the study of Merit Scholarship scheme was spread over 275 schools, the investigator selected 142 heads of schools (51%) and 152 class teacher (55%) by giving due representation to sex and locale, for interview.

4. ADMINISTRATION OF TOOLS AND COLLECTION OF DATA

Pre-tests were administered during the month of July 1995 to 581 inmates studying in Std. VII, spread over 74 pre-matric hostels. The data collected from 509 pupils were found suitable for the study. The post tests were conducted during the 2nd week of March 1996 to 509 pupils, who were already selected from the pre-test. Out of this 434 were found suitable for final analysis.

The investigator interviewed 67 wardens of pre-matric hostels and 81 teachers of the Tutorial system and collected relevant primary data for analysis.

The researcher observed all the 74 pre-matric hostels and some classes under the Tutorial system and collected first hand information.

The investigator covered 697 high schools, having upper primary section. Out of the 697 high schools, 275 heads of schools responded with

491 Proforma and SES data sheets. After scrutinising, 445 Proforma with the corresponding SES data sheets, were selected for final analysis. The investigator interviewed the heads of schools and teachers during his visit to the schools with a view to collect first hand information regarding the implementation of the Merit Scholarship Scheme.

5. SUMMARY OF THE FINDINGS

(i) Summary of the findings in respect of the Tutorial System

Consolidated table showing the achievement scores in the pre-test and post-test for the total sample as well as the sub-samples in respect of Tutorial System is given below.

Table 45

**Consolidated Table Showing the Achievement Scores in the
Pre-test and Post-test**

Sl. No.	Category	No. of pupils	Pre test		Post test		t value	Level of significance
			M ₁	σ_1	M ₂	σ_2		
1.	Total sample	434	71.07	21.67	88.56	25.15	18.80	0.01
2.	Total SC group	203	75.73	24.47	98.26	29.14	15.67	0.01
3.	Total ST group	231	66.97	17.94	80.04	16.99	11.52	0.01
4.	Total Boys	202	64.29	20.78	78.51	22.31	13.20	0.01
5.	Total Girls	232	76.97	20.71	97.31	24.23	14.10	0.01
6.	SC Boys	102	67.97	25.00	84.99	26.74	10.81	0.01
7.	SC Girls	101	83.57	21.32	111.66	25.14	12.27	0.01
8.	ST Boys	100	60.53	14.50	71.91	13.91	8.00	0.01
9.	ST Girls	131	71.88	18.79	86.24	16.55	8.57	0.01
Total sample: Subject-wise								
10.	English	434	16.65	6.02	20.09	7.01	9.82	0.01
11.	Hindi	"	20.16	9.16	26.13	10.26	11.61	0.01
12.	General Science	"	16.23	5.44	22.01	6.40	19.67	0.01
13.	Mathematics	"	18.03	7.21	20.33	7.15	6.19	0.01

Total Boys: Subject-wise								
14.	English	202	15.01	5.99	17.80	6.56	5.93	0.01
15.	Hindi	"	17.15	7.99	21.74	9.49	9.28	0.01
16.	General Science	"	15.46	4.87	20.64	6.28	14.07	0.01
17.	Mathematics	"	16.66	7.79	18.33	5.69	3.20	0.01
Total Girls: Subject-wise								
18.	English	232	18.07	5.68	22.09	6.78	7.86	0.01
19.	Hindi	"	22.77	9.32	29.95	9.34	11.54	0.01
20.	General Science	"	16.90	5.82	23.21	6.27	14.19	0.01
21.	Mathematics	"	19.23	6.45	22.06	7.81	5.43	0.01
SC Total subject-wise								
22.	English	203	17.36	6.80	21.95	8.23	7.88	0.01
23.	Hindi	"	21.35	9.91	30.12	10.69	14.13	0.01
24.	General Science	"	17.64	6.35	24.04	7.61	12.77	0.01
25.	Mathematics	"	19.38	7.55	22.15	8.62	5.07	0.01
SC Boys: subject-wise								
26.	English	102	16.41	7.57	19.36	8.05	3.61	0.01
27.	Hindi	"	17.65	8.42	24.86	10.54	10.25	0.01

28.	General Science		16.20	5.39	21.45	7.40	10.50	0.01
29.	Mathematics		17.72	8.17	19.31	6.69	2.58	0.01
SC Girls: Subject-wise								
30.	English	101	18.33	5.80	24.56	7.59	7.79	0.01
31.	Hindi		25.09	9.94	35.43	7.88	10.29	0.01
32.	General Science		19.10	6.91	26.65	6.92	8.79	0.01
33.	Mathematics		21.06	6.49	25.02	9.40	4.43	0.01
ST Total subject-wise								
34.	English	231	16.02	5.17	18.46	5.21	6.02	0.01
35.	Hindi	"	19.11	8.31	22.63	8.44	7.21	0.01
36.	General Science	"	14.99	4.12	20.23	4.40	15.88	0.01
37.	Mathematics	"	16.98	6.91	18.63	4.99	3.22	0.01
ST Boys: Subject-wise								
38.	English	100	13.59	3.23	16.21	4.02	5.70	0.01
39.	Hindi	"	16.65	7.53	18.56	7.01	3.26	0.01
40.	General Science	"	14.71	4.17	19.81	4.77	9.39	0.01
41.	Mathematics	"	15.58	7.25	17.33	4.25	2.06	0.05

ST Girls: subject-wise								
42.	English	131	17.87	5.60	20.18	5.38	3.69	0.01
43.	Hindi	"	20.98	8.41	25.73	8.13	6.61	0.01
44.	General Science	"	15.21	4.08	20.55	4.09	13.05	0.01
45.	Mathematics	"	17.82	6.08	19.79	5.33	3.23	0.01

1.1. Findings based on the Pretest-Posttest scores (Tutorial System)

1. The level of significance of the mean difference of the total performance scores in the pre-test and post-test, are found to be beyond .01 level in the case of the total sample, SC group and ST group. The post-test scores were invariably higher too. This indicates that the Tutorial system had a favourable impact on the level of scholastic attainment of all the three groups.
2. The mean differences of the total performance scores of the pre-test and post-test differ significantly, beyond 0.01 level in the case 'total boys' and 'total girls'. The post test scores are higher in both the cases. This is an evidence to prove that the Tutorial system had a favourable impact on the levels of scholastic achievement of 'total boys' as well as 'total girls'.

3. The mean score of the total performance in the pre-test and post-test are found to differ significantly beyond 0.01 level, in the case of SC Boys, SC Girls, ST Boys, and ST Girls. The post-test scores being higher for all the groups, Tutorial system may be said to have a favourable impact on the levels of scholastic achievement of all these categories, viz., SC Boys, SC Girls, ST Boys and ST Girls.
4. The mean differences of the performance scores in the pre-test and post-test scores is found to be significant beyond 0.01 level in the case of the total sample, for each of the four subjects, English, Hindi, General Science and Mathematics. In all the cases the post-test scores are higher. This shows that the Tutorial System had a positive effect in the achievement of all subject areas of Tutorial System; with regards to the total sample.
5. Mean differences of the achievement scores in the pre-test and post-tests for total boys in all the four subjects, viz., English, Hindi, General Science and Mathematics are found to be significant beyond 0.01 level. The same trend is seen in the case of total girls also. The post-test scores are found to be invariably higher than the pre-test scores. This shows that the Tutorial System had a favourable impact on the levels of scholastic attainment of the 'total Boys' as well as

'total Girls' in all the subjects viz., English, Hindi, General Science and Mathematics.

6. The mean differences of the performance scores in the Pre-test and Post-test for total SC group with respect to English, Hindi, General Science and Mathematics are seen to be significant beyond 0.01 level. Similar significant differences are found in the case of SC Boys and SC Girls when these were studied separately. In the case of all groups and all subjects the post-test scores are higher. This shows that the Tutorial System had a favourable impact on the levels of scholastic attainment of the total SC group, SC Boys and SC Girls in respect of all the subjects viz., English, Hindi, General Science and Mathematics.
7. The mean differences of the achievement scores in the pre-test and post-test for total ST group, ST boys and ST girls with respect of all the subject areas covered, viz., English, Hindi, General Science and Mathematics are significant. This significance is beyond 0.01 level in all cases, except Mathematics with regard to the ST group, in which case it is only beyond 0.05 level. It may be noted that this is the only case where significance beyond 0.01 level could not be found. In all the cases the post-test scores are higher than the pre-test scores. This is an evidence to the fact that the Tutorial system had a

favourable impact on the levels of scholastic attainment of total ST group, ST Boys and ST Girls in respect of all the subjects areas covered by the Tutorial system viz., English, Hindi, General Science and Mathematics.

The exception noted in the case of Mathematics achievement of ST boys needs some clarifications. Even though it is significant statistically, it is low compared to the performance in other subjects. The results of the responses given by the wardens and teachers, to the interview, and the close observation of the pre-matric hostels had revealed that Mathematics teachers were not available in certain pre-matric hostels, particularly in hostels for ST pupils. This might have resulted in the comparatively low enhancement in the achievement in mathematics.

However, all the results prove that the Tutorial system had a favourable impact on the levels of attainment of the pupils, included in the study as a whole, as well as in all subgroups of that sample and this is so in the case of all the subjects. Hence it is recommended that the Tutorial system should be continued with a dynamic perception and added vigour.

1.2. Findings based on interview (Tutorial System)

1. Out of 74 pre-matric hostels, only 6 are conducive for living. But none of them is conducive for learning.

2. The facilities in the pre-matric hostels are quite inadequate for the conduct of the tutorial system. They are not provided with teaching learning materials.
3. There is no separate room for conducting classes under the Tutorial System. In almost all pre-matric hostels, the classes are being conducted in varandahs or in living rooms. In spite of this it is found that the Tutorial system had a favourable impact on the levels of attainment of the pupils covered in the study. If adequate facilities, were provided, the success of the scheme would have been more remarkable.
4. The strength of pre-matric hostels is getting reduced year by year due to the lack of facilities provided there. If the facilities in the pre-matric hostels are improved and maintained, the parents will be motivated to send their children to such hostels.
5. Either non-availability of trained teachers or delay in appointment of teachers adversely affects the efficacy of the Tutorial system in certain pre-matric hostels. If teachers are made available on time, it would surely be beneficial to the success of the Tutorial system.

6. Non-availability of mathematics teachers is a common problem especially in Wynad and Attappadi regions of the Palghat district, which adversely affects the performance in Mathematics.
7. Another important finding that emerged from the interview is that, even though the Taluk Scheduled Caste Development officers and Tribal Development Officers have given necessary instructions to all heads of schools before the beginning of the academic year, to give wide publicity among SC/ST pupils in school about admission to pre-matric hostels, some of the Aided school authorities are found reluctant to give publicity. Neither are they willing to issue transfer certificate (T.C.) to pupils, who wish to get admission to the feeder schools of the pre-matric hostels. This is because of their fear that, this may lead to 'division fall and subsequent reduction in the number of post of teachers in the school.
8. Since the inmates are spending the long summer vacation in their home atmosphere, their interest in education is getting reduced.

1.3. Findings based on Observation (Tutorial System)

1. Sufficient rooms are not available for pupils in almost all pre-matric hostels (whether run in government buildings or rented buildings),

except in 6 pre-matric hostels run in Government buildings, which were newly constructed.

2. Sufficient cots, beds, mats, etc. are not provided in majority of the pre-matric hostels.
3. None of the hostels is provided with separate room for conducting classes under Tutorial System.
4. It is found that the visitors' room or dormitory or varandah is used for conducting classes.
5. Adequate furniture is not provided in the pre-matric hostels, for the smooth implementation of the Tutorial System.
6. Though there is provision for a library, no library is seen maintained properly. Only 7 hostels have at least small shelves to keep library books. In all other pre-matric hostels, the library books are kept in small boxes or on a desk or table. The books available are very old and even tampered. No new books are provided in any of the pre-matric hostels.
7. 14 out of 74 pre-matric hostels are provided with Television set. 51 pre-matric hostels are provided with Radios. But most of the Television and Radio sets are not in working condition.

8. From the observation of some of the classes under Tutorial System, it is noted that the classes are conducted together for the pupils of standards VIII, IX and X or for Std. VIII separately but IX and X kept together. This is found to be unscientific and ineffective.
9. Almost all teachers, handling classes in the Tutorial System are following the lecture method. However, the teachers have a very good rapport with the students.

2. Summary of findings in respect of Merit Scholarship Scheme

2.1 Comparison of achievement levels

Analysis of achievement scores are provided in Table 46.

Table 46

Table showing the consolidated results of test of significance for percentage difference in pre-scholarship stage and post-scholarship stage in respect of Merit Scholarship Scheme

Sl.No.	Category	Pre-Scholarship Stage			Post-Scholarship Stage			CR Of difference In percentage	Level of significance
		Number of pupils	Number of High Achievers	Percentage (P ₁)	Number of pupils	Number of High Achievers	Percentage (P ₂)		
1	Total sample	445	55	12.36	445	63	14.15	0.788	NS
2	SC group	379	56	14.78	379	51	13.46	0.52	NS
3	ST group	66	10	15.15	66	7	10.61	0.778	NS
4	Total boys	201	23	11.44	201	26	12.94	0.46	NS
5	Total girls	244	36	14.75	244	32	13.11	0.524	NS
6	SC boys	171	20	11.70	171	23	13.45	0.136	NS
7	SC girls	208	34	16.35	208	28	13.46	0.828	NS
8	ST boys	30	4	13.33	30	2	6.67	0.859	NS
9	ST girls	36	7	19.44	36	5	13.88	0.633	NS

NS = Not Significant

Important findings based on the stratification technique

The difference in percentages of the high achievers of the pre-scholarship stage and post scholarship stage, for the total sample, SC group, ST group, and sub-samples of total boys, total girls, SC boys, SC girls, ST boys and ST girls are found to be not significant in all the cases, i.e. there is no evidence to show any positive effective of scholarship scheme on the level of attainment of the recipients.

2.2. Findings based on the responses to the socio-economic status scale

Majority of the recipients of the Merit Scholarships among SC/ST group belong to lower class (64.04%) and lower middle class (26.97) .

2.3. Findings based on interview with heads of schools

1. Absenteeism is common among SC/ST pupils, but this phenomenon is rarely seen among Merit Scholarship awardees of this group.
2. A highly satisfactory personal neatness among the merit scholarship recipients can be seen than that of the other SC/ST pupils.
3. Certain heads of schools denied continuance of the merit scholarship in Standard IX and X to those who have already received it in Standard VIII.

4. Some of the heads of the schools select pupils other than SC/ST for award of merit scholarship, violating the rules and regulations of the scheme.
5. The findings 3 and 4 show that some of the implementing authorities are not well versed with the guide lines of the merit scholarship scheme and the scheme is being implemented not strictly adhering the rules and regulations.
6. The belated distribution of merit scholarship to the meritorious pupils defeat the very purpose of this scheme.
7. In some schools, required number of pupils are not available for the award of merit scholarship due to the minimum marks prescribed in the guidelines for awarding the scholarship.

2.4. Findings based on the interview with class teachers

1. About 8% of the teachers are not aware of the details of the merit scholarship scheme.
2. Majority of the teachers (72%) stated that merit scholarship motivates the pupils to study.
3. Majority of the teachers (56%) used to encourage the merit scholarship winners by providing approval and other reinforces.

4. Some of the teachers (12%) had a frequent discussion with parents of merit scholarship recipients when they approach them. This gives self confidence to parents as well as the pupils.
5. Only 13 percent teachers have had the habit of informing the parents of the merit scholarship awardees about the progress of their children.
6. Almost all the class teachers recommended the enhancement of the scholarship amount so as to meet their educational needs.
7. Most of the merit scholarship recipients showed a quality behaviour towards the teachers when compared with the non recipient ST/ST pupils. Their note books, text books, etc. are satisfactorily neat.

6. SUGGESTIONS FOR IMPLEMENTATION

a) Tutorial System

The following are the major suggestions put forth by the researcher based on the present study.

1. The Tutorial system is now being implemented for the High School pupils only. The benefits of the scheme should be extended to upper primary pupils also.

2. Bridge course should be introduced in pre-matric hostels during mid summer vacation, so as to sustain motivation of the pupils.
3. As far as possible, teachers should be selected from the locality, irrespective of their training qualification. If they are untrained they should be given training. This will overcome the non-availability of the competent hands, especially in mathematics. Moreover local teachers will be more committed to this extension work.
4. The selection of teachers should be made in May every year ie. before starting the classes under the Tutorial System so as to equip the teachers for the programme.
5. Steps should be taken to provide 'AIDS KIT FOR TUTORIAL SYSTEM' to every pre-matric hostels.
6. 'FIELD TRIP' should be introduced as an integral part of the Tutorial System.
7. The effectiveness of the Tutorial System will depend upon the efficiency of the teachers. Most of the teachers are untrained graduates. They have no previous experience in teaching. Another important factor to be noted is that, even the trained teachers are unaware of the socio-cultural background of the SC/ST pupils. Hence the teachers should be given proper orientation to gather

insight into the cultural background of the pupils as well as to teaching methods appropriate to that special group. The training should be conducted at district level and the following stress should be covered.

Part A

- (i) A brief history of SCs and STs.
- (ii) Socio-economic status of the SCs and STs.
- (iii) The welfare measures for the upliftment of the SCs and STs.
- (iv) Role of education in the development of SCs and STs.
- (v) The socio-economic factors affecting the development of SCs and STs.
- (vi) Major psychological problems faced by the SC and ST pupils; and
- (vii) The educational problems faced by the pupils on the basis of the evaluation of the previous years' Tutorial System.

Part B

- (i) Development of Teaching modules. Expertise of the personnel in the District Institute for Educational Training (DIET) can be made use of for this purpose.
- (ii) Problems faced by the pupils as well as teachers participating in the Tutorial System, with a view to attempt remedial measures.

- (iii) Identification of pre-requisites for each standard in each subject covered by the Tutorial. Diagnosis of pre-requisites and remediation.
- (iv) Strategies for helping mastery of the basic language competencies and fundamental operations in Mathematics. Identification of gaps in the above and provision of compensatory remedial experiences.
- (v) Application of the project method as the strategy most suited to the SC/ST pupils. How to design and execute locally relevant projects suited to curricular areas.
- (vi) In the end, it may be pointed out that the success of the entire programme depend upon the willing co-operation of the teachers, for which they have to derive satisfaction out of the work. Hence it is recommended that (i) the remuneration of the teachers should be made attractive and (ii) awareness about the nobility of the work should be created in their minds by providing appropriate orientation.

(b) Merit Scholarship Scheme

The following are the suggestions based on the merit scholarship scheme.

1. The minimum marks fixed for the selection of pupils (more than 45% marks in aggregate in the annual examination of previous year, ie. Standard VII) should be relaxed or reduced to 40 per cent so as to get adequate number of pupils.
2. The number of scholarships should be enhanced so as to extend the facilities for more pupils.
3. Appropriate guidelines should be issued to the District Educational Officers (DEOs), Assistant Educational Officers (AEOs) and heads of schools to avoid the misappropriation of this scheme.
4. The scholarship amount should be enhanced to meet the challenges of the increasing cost of the learning materials.
5. The selection of pupils for Merit Scholarship should be done early enough with a view to motivate the pupil at the initial stage of studies. Selection memos should also be issued to each pupil so as to inform the pupils about the award in time.
6. Necessary funds for the distribution of Merit Scholarship should be given to the heads of schools concerned, in time.
7. The selection of pupils for Merit Scholarship is now being done on the basis of the marks secured by them in the annual examination of

Standard VII. For the terminal examinations each school has its own question paper and mode of evaluation. Hence, a valid, reliable and uniform question paper is to be prepared and used all over Kerala to select the pupils for Merit Scholarship. Considering this view a Merit Scholarship Proficiency Test (MSPT) should be developed for this purpose along with SSLC examinations as in the case of Lower Secondary Scholarship (LSS) and Upper Secondary Scholarship (USS) examinations.

7. SUGGESTIONS FOR FURTHER RESEARCH

The findings of the present study tempt the investigator suggest the following areas for further research.

1. There are 29 subsidised pre-matric hostels in the state. A huge amount of the Departmental money is expended for those subsidised pre-matric hostels, run by the Non-Governmental Organisations (NGOs). A study should be conducted to find out how far this amount is utilised profitably for realising the anticipated goals.
2. Six residential public schools including the Rajiv Gandhi Memorial Residential School are functioning now in the state solely for SC/ST pupils. A scientific study should be conducted to find out the utility

of these institutions in the upliftment of the educational standards of the target groups.

3. Psycho-social problems of the inmates of the pre-matric hostels should also be studied.
4. The study should be replicated in the 7 southern districts of Kerala.
5. A study of the continuous academic performance of recipients of Merit Scholarship.
6. The Government of Kerala started a scheme for giving "Financial Assistance to SSLC Failed Scheduled Caste and Scheduled Tribe Pupils for Continuing their Education through Private Tutorial Colleges" from the year 1988-89. The utility of the scheme and its impact should also be assessed. A scientific study should be conducted in this area.
7. A scheme for "Better Education to Talented Pupils" introduced by the Department of Scheduled Caste and Scheduled Tribe Development, for the educational development of SC/ST pupils is being implemented. The effect of the scheme has to be ascertained. This area should also be considered for further research.

8. A study to find out the impact of merit scholarship scheme at upper primary level can also be undertaken for research.
9. The present study is confined only to seven northern districts of Kerala for practical reasons. A similar study can be attempted to study the seven southern districts of Kerala.

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APPENDICES

APPENDIX I

CONSOLIDATED TABLE SHOWING THE WEIGHTAGES ASSIGNED TO OBJECTIVES FOR AN ACHIEVEMENT TEST IN ENGLISH FOR STANDARD VII

Sl.No.	Knowledge	Understanding/ Reproduction	Expression`	Total Marks
1	40	20	40	100
2	45	15	40	100
3	40	18	42	100
4	36	22	42	100
5	45	10	45	100
6	30	25	45	100
7	35	25	40	100
8	50	15	35	100
9	42	20	38	100
10	40	25	35	100
Total	403	195	402	1000
Percentage	40	20	40	100

APPENDIX II

CONSOLIDATED TABLE SHOWING WEIGHTAGES TO OBJECTIVES
ASSIGNED TO AN ACHIEVEMENT TEST IN HINDI
FOR STANDARD VII

Sl.No.	Knowledge	Understanding/ Reproduction	Expression`	Total Marks
1	30	30	40	100
2	28	28	44	100
3	38	36	26	100
4	30	30	40	100
5	30	34	46	100
6	28	44	28	100
7	30	32	38	100
8	50	25	25	100
9	25	30	45	100
10	35	30	35	100
Total	324	319	357	1000
Percentage	32	32	36	100

APPENDIX III

CONSOLIDATED TABLE SHOWING THE WEIGHTAGES ASSIGNED TO
OBJECTIVES FOR AN ACHIEVEMENT TEST IN GENERAL SCIENCE
FOR STANDARD VII

Sl.No.	Knowledge	Understanding	Application	Total Marks
1	50	30	20	100
2	50	28	22	100
3	45	45	10	100
4	50	30	20	100
5	50	34	16	100
6	50	40	10	100
7	50	32	18	100
8	50	25	25	100
9	50	30	20	100
10	50	30	20	100
Total	495	324	181	1000
Percentage	50	32	18	100

APPENDIX IV

CONSOLIDATED TABLE SHOWING THE WEIGHTAGES ASSIGNED TO
OBJECTIVES FOR AN ACHIEVEMENT TEST IN MATHEMATICS
FOR STANDARD VII

Sl.No.	Knowledge	Understanding	Application	Total Marks
1	50	30	20	100
2	60	15	25	100
3	50	30	20	100
4	45	40	15	100
5	50	30	20	100
6	50	30	20	100
7	45	37	18	100
8	50	30	20	100
9	50	25	25	100
10	50	30	20	100
Total	500	297	203	1000
Percentage	50	30	20	100

APPENDIX V

CONSOLIDATED TABLE SHOWING THE WEIGHTAGES ASSIGNED TO
OBJECTIVES FOR AN ACHIEVEMENT TEST IN ENGLISH
FOR STANDARD VIII

Sl.No.	Knowledge	Understanding/ Reproduction	Expression	Compre- hension	Total marks
1	18	35	40	7	100
2	20	35	30	15	100
3	25	25	30	20	100
4	20	38	35	7	100
5	20	40	30	10	100
6	25	40	20	15	100
7	20	40	25	15	100
8	15	40	30	15	100
9	20	36	25	19	100
10	20	30	30	20	100
Total	203	259	295	143	1000
Percentage	20	36	30	14	100

APPENDIX VI

CONSOLIDATED TABLE SHOWING WEIGHTAGES TO OBJECTIVES
ASSIGNED TO AN ACHIEVEMENT TEST IN HINDI
FOR STANDARD VIII

Sl.No.	Knowledge	Understanding/ Reproduction	Expression	Total Marks
1	30	30	40	100
2	25	40	35	100
3	30	30	40	100
4	30	34	36	100
5	37	28	35	100
6	30	45	25	100
7	40	20	40	100
8	30	32	38	100
9	20	40	40	100
10	30	40	30	100
Total	302	339	359	1000
Percentage	30	34	36	100

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APPENDIX VII

CONSOLIDATED TABLE SHOWING WEIGHTAGES TO OBJECTIVES
ASSIGNED TO AN ACHIEVEMENT TEST IN GENERAL SCIENCE
FOR STANDARD VIII

Sl.No.	Knowledge	Understanding	Application	Total Marks
1	46	34	20	100
2	50	30	20	100
3	31	44	25	100
4	55	30	15	100
5	55	25	20	100
6	54	28	18	100
7	50	30	20	100
8	48	32	20	100
9	44	36	20	100
10	45	30	25	100
Total	478	319	203	1000
Percentage	48	32	20	100

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APPENDIX VIII

CONSOLIDATED TABLE SHOWING WEIGHTAGES TO OBJECTIVES
ASSIGNED TO AN ACHIEVEMENT TEST IN MATHEMATICS
FOR STANDARD VIII

Sl.No.	Knowledge	Understanding	Application	Total Marks
1	46	38	16	100
2	55	30	15	100
3	62	20	18	100
4	55	30	15	100
5	54	30	16	100
6	60	25	15	100
7	55	30	15	100
8	54	30	16	100
9	48	37	15	100
10	52	30	18	100
Total	541	300	159	1000
Percentage	54	30	16	100

APPENDIX IX

CONSOLIDATED TABLE SHOWING WEIGHTAGES ASSIGNED TO
CONTENT AREAS OF ENGLISH FOR AN ACHIEVEMENT TEST
FOR STANDARD VII

Sl.No.	Units			Total Marks
	Text	Elements of language		
		Vocabulary	Structure	
1	25	35	40	100
2	20	48	32	100
3	15	60	25	100
4	25	45	30	100
5	10	60	30	100
6	26	40	14	100
7	22	48	30	100
8	18	37	35	100
9	15	57	28	100
10	20	50	30	100
Total	196	480	324	1000
Percentage	20	48	32	100

APPENDIX X

CONSOLIDATED TABLE SHOWING WEIGHTAGES ASSIGNED TO
CONTENT AREAS OF HINDI FOR AN ACHIEVEMENT TEST
FOR STANDARD VII

Sl.No.	Units			Total Marks
	Text	Elements of language		
		Vocabulary	Structure	
1	45	30	25	100
2	50	36	14	100
3	50	30	20	100
4	50	25	25	100
5	50	30	20	100
6	60	15	25	100
7	50	30	20	100
8	45	30	25	100
9	50	40	10	100
10	50	30	20	100
Total	500	296	204	1000
Percentage	50	30	20	100

CONSOLIDATED TABLE SHOWING THE WEIGHTAGE ASSIGNED TO CONTENT AREAS OF
GENERAL SCIENCE FOR AN ACHIEVEMENT TEST IN STANDARD VII

Sl. No.	Units																Total Marks
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1	12	14	4	5	3	7	4	6	5	10	2	9	5	4	8	2	100
2	13	12	4	6	4	6	4	6	4	10	2	9	6	4	8	2	100
3	10	12	3	6	5	5	5	6	4	10	2	10	6	4	8	2	100
4	12	12	4	6	4	6	4	6	4	9	2	10	6	5	8	2	100
5	13	14	3	5	4	7	4	5	4	10	2	10	6	4	7	2	100
6	12	12	5	7	4	5	4	6	4	10	2	11	4	4	8	2	100
7	12	12	4	6	4	6	5	6	4	10	2	10	6	4	7	2	100
8	12	12	4	5	4	6	4	5	4	9	2	10	7	5	8	3	100
9	10	10	5	7	4	6	4	6	5	10	2	11	6	4	8	2	100
10	14	12	4	6	5	5	3	6	4	10	2	10	7	4	8	2	100
Total	120	122	40	59	41	59	41	58	42	98	20	100	59	42	78	21	1000
%	12	12	4	6	4	6	4	6	4	10	2	10	6	4	8	2	100

APPENDIX XIII

CONSOLIDATED TABLE SHOWING THE WEIGHTAGES ASSIGNED TO
CONTENT AREAS OF ENGLISH FOR AN ACHIEVEMENT TEST IN
STANDARD VIII

Sl.No.	Units			Compre- hension	Marks
	Text	Elements of language			
		Vocabulary	Structure		
1	40	25	20	15	100
2	30	30	24	16	100
3	35	28	27	10	100
4	30	31	24	15	100
5	35	28	23	14	100
6	30	28	27	15	100
7	35	30	20	15	100
8	40	28	22	10	100
9	35	28	22	15	100
10	33	24	28	15	100
Total	343	280	238	140	1000
Percentage	34	28	24	14	10

APPENDIX XIV

CONSOLIDATED TABLE SHOWING WEIGHTAGES ASSIGNED TO
CONTENT AREAS OF HINDI FOR AN ACHIEVEMENT TEST
FOR STANDARD VIII

Sl.No.	Units			Total Marks
	Text	Elements of language		
		Vocabulary	Structure	
1	40	30	30	100
2	40	30	30	100
3	50	20	30	100
4	50	30	20	100
5	50	20	30	100
6	50	30	20	100
7	50	20	30	100
8	50	30	20	100
9	50	30	20	100
10	50	25	25	100
Total	480	265	255	1000
Percentage	48	26	26	100

CONSOLIDATED TABLE SHOWING THE WEIGHTAGES ASSIGNED TO THE CONTENT AREAS OF STANDARD VIII OF
GENERAL SCIENCE FOR AN ACHIEVEMENT TEST

Sl.No.	PHYSICS							CHEMISTRY									BIOLOGY						Mar ks
	1	2	3	4	5	6	7	1	2	3	4	5	6	7	8	9	1	2	3	4	5	6	
1	5	2	2	5	7	9	4	4	3	4	2	4	2	2	6	3	2	4	6	12	8	4	100
2	4	2	2	4	8	8	4	4	4	4	2	4	2	2	7	4	2	4	6	10	9	4	100
3	4	2	2	4	8	8	4	4	4	5	2	4	2	2	7	4	2	4	6	10	8	4	100
4	4	2	2	4	9	7	4	4	4	4	6	4	2	2	8	4	2	4	6	10	7	4	100
5	4	2	2	4	8	8	4	4	4	4	2	4	2	2	8	4	2	4	6	10	8	4	100
6	4	3	3	4	8	8	4	3	5	4	2	4	2	2	8	4	2	3	5	10	8	4	100
7	5	2	2	4	8	8	4	5	4	4	2	3	2	1	8	5	2	4	6	10	8	3	100
8	4	2	2	5	8	7	3	4	4	4	2	4	2	2	10	4	2	4	6	9	8	4	100
9	4	2	2	4	6	9	4	3	4	4	2	4	2	2	10	4	2	5	6	10	9	4	100
10	3	2	2	4	8	8	4	4	4	3	1	4	6	2	10	4	2	4	6	10	8	3	100
Total marks	41	21	21	42	78	80	39	39	40	40	20	39	20	19	82	40	20	40	59	101	81	38	1000
%	4	2	2	4	8	8	4	4	4	4	2	4	2	2	8	4	2	4	6	10	8	4	100

CONSOLIDATED TABLE SHOWING THE WEIGHTAGES ASSIGNED TO THE CONTENT AREAS OF STANDARD VIII
IN MATHEMATICS FOR AN ACHIEVEMENT TEST

Sl.No.	UNITS												Total Marks
	1	2	3	4	5	6	7	8	9	10	11	12	
1	10	10	9	2	20	7	5	5	7	10	10	5	100
2	12	8	8	2	20	6	6	4	8	12	10	4	100
3	12	8	8	2	21	6	6	4	9	12	8	4	100
4	12	9	7	2	20	6	6	5	8	11	10	4	100
5	14	8	8	2	18	6	7	4	8	12	10	3	100
6	12	8	8	2	20	5	6	4	8	12	11	5	100
7	12	8	6	2	20	6	6	4	10	11	10	5	100
8	12	10	8	2	20	6	5	5	6	12	10	4	100
9	12	8	9	2	22	6	5	4	8	10	11	6	100
10	13	7	9	2	18	7	7	4	6	13	10	4	100
Total Marks	121	84	80	20	199	61	59	43	78	115	100	40	1000
%	12	8	8	2	20	6	6	4	8	12	10	4	100

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APPENDIX XVII

DIFFICULTY INDEX AND DISCRIMINATING POWER OF TRY-OUT TEST
ITEMS IN ENGLISH FOR STANDARD VII

Item No.	U	L	D.V	D.P.	No .of items in the final test
1	94	62	0.78	0.32	
2	69	50	0.60	0.19	
3	87	55	0.71	0.32	
4	77	31	0.54	0.46	1
5	70	35	0.53	0.35	
6	69	23	0.46	0.46	2
7	76	36	0.56	0.40	
8	63	31	0.47	0.30	3
9	85	37	0.61	0.48	4
10	74	36	0.55	0.38	
11	84	34	0.59	0.50	5
12	86	58	0.72	0.25	
13	79	37	0.58	0.42	6
14	79	20	0.50	0.59	
15	91	33	0.63	0.58	
16	89	33	0.61	0.56	
17	84	21	0.53	0.63	7
18	94	30	0.62	0.64	8
19	82	41	0.62	0.41	9
20	37	28	0.33	0.09	

21	70	26	0.48	0.50	10
22	47	24	0.36	0.23	
23	89	38	0.64	0.51	
24	86	58	0.72	0.28	
25	74	21	0.48	0.53	11
26	85	36	0.61	0.41	
27	58	21	0.40	0.37	12
28	75	36	0.56	0.39	13
29	88	39	0.64	0.49	14
30	90	47	0.68	0.43	
31	87	22	0.55	0.65	15
32	89	44	0.67	0.39	
33	92	79	0.86	0.13	
34	81	42	0.62	0.39	16
35	85	23	0.54	0.62	17
36	92	63	0.78	0.29	
37	67	21	0.44	0.46	18
38	62	20	0.41	0.42	
39	79	34	0.57	0.45	19
40	65	30	0.48	0.30	
41	31	29	0.30	0.02	
42	59	28	0.44	0.31	20
43	33	26	0.30	0.07	
44	62	27	0.45	0.35	21
45	80	41	0.61	0.39	22

46	77	46	0.62	0.31	23
47	63	41	0.52	0.22	
48	39	18	0.29	0.21	
49	69	33	0.51	0.36	24
50	78	39	0.59	0.39	25
51	93	43	0.68	0.50	
52	63	19	0.41	0.44	26
53	73	37	0.55	0.36	
54	53	26	0.40	0.27	27
55	55	27	0.41	0.28	28
56	60	30	0.45	0.30	29
57	48	14	0.31	0.34	
58	80	42	0.61	0.38	30
59	65	28	0.47	0.37	31
60	65	31	0.48	0.34	32
61	89	33	0.61	0.56	33
62	58	19	0.39	0.39	34
63	85	47	0.65	0.38	35
64	70	38	0.64	0.32	
65	72	31	0.52	0.41	36
66	73	24	0.49	0.49	37
67	75	38	0.57	0.37	38
68	85	34	0.60	0.51	
69	77	34	0.56	0.43	
70	78	26	0.52	0.52	39

71	76	35	0.56	0.41	40
72	72	48	0.60	0.24	
73	63	28	0.46	0.35	41
74	71	34	0.53	0.37	42
75	64	18	0.41	0.46	43
76	64	33	0.49	0.31	
77	61	24	0.43	0.37	44
78	75	25	0.50	0.50	45
79	61	39	0.50	0.22	
80	69	29	0.49	0.40	46
81	60	28	0.44	0.32	
82	74	32	0.53	0.42	47
83	69	35	0.52	0.34	
84	83	23	0.53	0.60	48
85	71	32	0.52	0.39	49
86	65	37	0.52	0.28	
87	68	27	0.48	0.41	50
88	50	69	0.60	0.19	
89	56	37	0.47	0.19	

U = Number of right responses in the upper group

L = Number of right responses in the lower group

D.V. = Difficulty Value

D.P. = Discriminating Power

APPENDIX XV III

DIFFICULTY INDEX AND DISCRIMINATING POWER OF TRY-OUT TEST
ITEMS IN HINDI FOR STANDARD VII

Item No.	U	L	D.V	D.P.	No .of items in the final test
1	89	40	0.65	0.49	
2	88	74	0.81	0.14	
3	98	62	0.80	0.36	
4	99	62	0.80	0.36	
5	96	34	0.65	0.62	1
6	96	54	0.75	0.42	
7	89	38	0.64	0.51	2
8	90	20	0.55	0.70	3
9	92	54	0.73	0.38	
10	89	42	0.62	0.47	
11	98	63	0.81	0.35	
12	96	70	0.83	0.26	
13	91	38	0.65	0.53	4
14	91	45	0.68	0.46	
15	99	63	0.81	0.36	
16	84	29	0.57	0.55	5
17	95	34	0.65	0.61	6
18	98	53	0.76	0.45	

19	93	33	0.63	0.60	7
20	10	18	0.14	-0.06	
21	87	36	0.62	0.51	8
22	80	40	0.60	0.40	9
23	89	41	0.65	0.48	10
24	99	65	0.82	0.34	
25	99	51	0.75	0.48	
26	86	34	0.90	0.52	
27	95	24	0.60	0.71	11
28	92	47	0.70	0.45	
29	95	42	0.69	0.53	
30	94	33	0.64	0.61	12
31	60	19	0.40	0.41	13
32	95	60	0.76	0.35	
33	91	71	0.81	0.20	
34	38	34	0.36	0.04	
35	63	32	0.48	0.31	14
36	96	62	0.79	0.34	
37	97	47	0.72	0.50	
38	88	39	0.63	0.49	
39	83	48	0.65	0.35	15
40	79	48	0.64	0.31	16
41	98	45	0.72	0.53	

42	96	46	0.1	0.50	
43	92	40	0.66	0.52	17
44	97	27	0.62	0.70	18
45	91	39	0.65	0.52	19
46	96	53	0.75	0.43	
47	97	46	0.72	0.51	
48	89	39	0.64	0.50	20
49	96	59	0.78	0.37	
50	90	27	0.59	0.63	21
51	98	32	0.65	0.66	22
52	90	28	0.59	0.62	
53	93	37	0.65	0.56	
54	82	41	0.62	0.41	23
55	79	40	0.60	0.39	24
56	6	23	0.12	-0.17	
57	96	53	0.75	0.43	
58	92	40	0.66	0.52	25
59	89	30	0.60	0.59	26
60	89	30	0.60	0.59	27
61	96	56	0.76	0.40	
62	92	32	0.62	0.60	28
63	20	15	0.18	0.05	
64	96	34	0.65	0.62	29

65	89	26	0.58	0.63	30
66	84	22	0.53	0.62	31
67	81	51	0.66	0.31	32
68	94	54	0.74	0.40	
69	94	43	0.69	0.51	
70	97	35	0.56	0.42	
71	81	44	0.63	0.37	
72	97	47	0.72	0.50	
73	68	45	0.57	0.23	
74	84	28	0.56	0.56	34
75	79	44	0.62	0.35	
76	92	18	0.55	0.74	35
77	94	27	0.61	0.67	36
78	30	24	0.27	0.14	
79	84	54	0.69	0.30	
80	80	28	0.54	0.52	
81	93	35	0.64	0.58	37
82	88	40	0.64	0.48	38
83	93	37	0.65	0.56	39
84	96	30	0.63	0.86	40
85	77	41	0.59	0.36	41
86	95	31	0.63	0.64	42
87	90	28	0.59	0.62	43

88	94	61	0.78	0.33	
89	62	31	0.47	0.31	44
90	81	44	0.63	0.37	45
91	87	19	0.53	0.68	
92	78	26	0.52	0.52	
93	88	30	0.59	0.50	46
94	96	59	0.76	0.37	
95	76	23	0.50	0.53	47
96	96	32	0.64	0.64	
97	79	40	0.59	0.39	48
98	92	34	0.63	0.58	49
99	78	42	0.60	0.36	50

U = Number of right responses in the upper group

L = Number of right responses in the lower group

D.V. = Difficulty Value

D.P. = Discriminating Power

APPENDIX XIX

DIFFICULTY INDEX AND DISCRIMINATING POWER OF TRY-OUT TEST
ITEMS IN GENERAL SCIENCE FOR STANDARD VII

Item No.	U	L	D.V	D.P.	No .of items in the final test
1	77	33	0.55	0.44	1
2	86	37	0.62	0.49	
3	61	25	0.43	0.36	2
4	48	38	0.43	0.10	
5	57	15	0.36	0.42	3
6	83	35	0.59	0.48	
7	52	19	0.36	0.33	4
8	41	18	0.36	0.23	
9	72	27	0.49	0.45	5
10	84	27	0.56	0.57	6
11	65	22	0.44	0.43	7
12	43	24	0.34	0.19	
13	65	25	0.45	0.40	8
14	54	20	0.37	0.34	9
15	80	33	0.56	0.47	10
16	42	23	0.33	0.19	
17	41	18	0.30	0.23	

18	87	47	0.67	0.40	
19	77	17	0.47	0.60	11
20	83	38	0.60	0.45	12
21	51	24	0.38	0.27	
22	60	20	0.40	0.40	13
23	72	32	0.52	0.40	14
24	38	14	0.26	0.24	
25	90	36	0.63	0.54	
26	82	45	0.64	0.37	
27	70	38	0.54	0.32	15
28	74	26	0.50	0.48	16
29	77	28	0.53	0.49	17
30	55	23	0.39	0.32	18
31	64	25	0.45	0.39	19
32	58	23	0.41	0.35	20
33	84	28	0.56	0.56	21
34	77	32	0.55	0.45	22
35	46	16	0.31	0.30	
36	71	26	0.49	0.45	23
37	73	28	0.51	0.45	24
38	31	29	0.30	0.02	
39	37	13	0.25	0.24	
40	76	25	0.51	0.51	25

41	29	24	0.27	0.05	
42	69	28	0.49	0.41	26
43	64	19	0.42	0.45	27
44	68	20	0.44	0.48	28
45	93	32	0.63	0.61	
46	45	18	0.32	0.27	
47	50	25	0.38	0.25	
48	66	29	0.48	0.37	
49	90	39	0.65	0.51	
50	59	14	0.37	0.45	29
51	44	11	0.28	0.33	
52	55	35	0.45	0.20	
53	61	21	0.41	0.40	30
54	58	28	0.43	0.30	31
55	87	26	0.57	0.61	32
56	72	28	0.50	0.44	33
57	46	18	0.32	0.28	
58	27	8	0.18	0.19	
59	89	29	0.59	0.60	34
60	64	17	0.41	0.47	
61	60	28	0.40	0.32	
62	57	33	0.45	0.24	
63	53	16	0.35	0.37	35

64	39	19	0.29	0.20	
65	41	25	0.33	0.16	
66	68	16	0.42	0.52	
67	67	28	0.48	0.39	
68	51	26	0.39	0.25	
69	62	28	0.45	0.34	
70	81	30	0.56	0.51	36
71	59	25	0.42	0.34	37
72	71	40	0.56	0.31	
73	57	21	0.39	0.36	
74	60	26	0.43	0.34	
75	63	23	0.43	0.40	38
76	60	20	0.40	0.44	
77	87	27	0.57	0.60	
78	77	35	0.56	0.42	39
79	81	27	0.54	0.54	40
80	53	33	0.43	0.20	
81	46	21	0.34	0.25	
82	88	23	0.56	0.65	41
83	68	44	0.56	0.24	
84	66	27	0.47	0.39	42
85	78	22	0.50	0.56	43
86	31	18	0.25	0.13	

87	29	23	0.26	0.06	
88	67	22	0.45	0.45	
89	85	32	0.59	0.53	44
90	70	35	0.53	0.35	45
91	80	22	0.51	0.58	46
92	86	34	0.60	0.52	47
93	48	18	0.33	0.30	
94	74	36	0.55	0.38	48
95	68	23	0.41	0.45	
96	55	35	0.43	0.24	
97	75	43	0.59	0.32	
98	43	25	0.34	0.18	
99	73	29	0.51	0.44	49
100	84	27	0.56	0.57	50

U = Number of right responses in the upper group

L = Number of right responses in the lower group

D.V. = Difficulty Value

D.P. = Discriminating Power

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APPENDIX XX

DIFFICULTY INDEX AND DISCRIMINATING POWER OF TRY-OUT TEST
ITEMS IN MATHEMATICS FOR STANDARD VII

Item No.	U	L	D.V	D.P.	No .of items in the final test
1	90	66	0.78	0.12	
2	60	32	0.46	0.28	
3	80	40	0.60	0.40	1
4	90	45	0.68	0.45	
5	72	18	0.45	0.54	2
6	67	53	0.60	0.14	
7	16	21	0.19	0.05	
8	86	44	0.65	0.42	
9	58	29	0.44	0.29	3
10	89	45	0.67	0.44	
11	50	16	0.33	0.34	4
12	92	71	0.82	0.21	
13	87	54	0.71	0.33	
14	93	58	0.76	0.35	
15	84	33	0.59	0.51	5
16	81	40	0.61	0.41	6
17	83	26	0.55	0.57	7

18	83	24	0.54	0.59	8
19	86	38	0.62	0.48	
20	99	84	0.96	0.15	
21	48	23	0.36	0.25	
22	86	58	0.72	0.28	
23	62	36	0.49	0.26	
24	65	20	0.43	0.45	9
25	95	51	0.73	0.44	
26	77	50	0.64	0.27	
27	76	38	0.57	0.38	10
28	43	37	0.40	0.06	
29	89	38	0.64	0.51	
30	85	33	0.59	0.52	11
31	73	20	0.47	0.53	12
32	83	41	0.63	0.42	
33	68	31	0.50	0.37	13
34	62	28	0.45	0.34	14
35	69	35	0.52	0.34	15
36	55	23	0.39	0.32	
37	73	21	0.47	0.52	16
38	81	36	0.59	0.45	17
39	82	27	0.55	0.55	
40	87	41	0.64	0.46	

41	50	31	0.41	0.19	
42	72	28	0.50	0.44	18
43	81	31	0.56	0.50	19
44	49	36	0.43	0.13	
45	69	27	0.48	0.42	20
46	68	14	0.41	0.54	
47	59	11	0.35	0.48	21
48	89	42	0.67	0.47	
49	58	25	0.42	0.33	22
50	77	53	0.65	0.24	
51	49	26	0.36	0.23	
52	68	31	0.50	0.37	23
53	62	22	0.42	0.40	24
54	71	17	0.44	0.54	25
55	75	32	0.54	0.43	26
56	75	35	0.55	0.40	27
57	60	35	0.48	0.25	
58	81	38	0.60	0.43	28
59	82	27	0.55	0.55	29
60	77	29	0.53	0.48	30
61	93	53	0.73	0.40	
62	93	28	0.61	0.65	31
63	72	28	0.50	0.44	32

64	70	24	0.47	0.46	33
65	67	21	0.44	0.46	34
66	79	32	0.56	0.47	35
67	63	22	0.43	0.41	36
68	89	37	0.63	0.52	
69	61	15	0.38	0.46	37
70	39	23	0.31	0.16	
71	38	12	0.25	0.26	
72	66	25	0.46	0.41	38
73	38	13	0.26	0.25	
74	60	20	0.40	0.40	39
75	63	34	0.49	0.29	40
76	73	49	0.61	0.24	
77	67	27	0.47	0.40	41
78	40	23	0.32	0.17	
79	41	30	0.36	0.11	
80	86	50	0.68	0.36	
81	76	26	0.51	0.50	42
82	55	33	0.44	0.22	
83	80	39	0.60	0.41	43
84	72	36	0.54	0.36	44
85	46	26	0.36	0.20	
86	80	30	0.55	0.50	45

87	59	30	0.45	0.29	
88	77	43	0.60	0.34	46
89	4	9	0.07	0.05	
90	79	24	0.52	0.55	
91	73	44	0.59	0.29	
92	30	35	0.33	-0.05	
93	96	52	0.74	0.44	
94	73	16	0.45	0.57	47
95	71	26	0.49	0.45	48
96	39	12	0.26	0.27	
97	71	30	0.51	0.41	49
98	70	29	0.50	0.41	50
99	95	52	0.74	0.43	

U = Number of right responses in the upper group

L = Number of right responses in the lower group

D.V. = Difficulty Value

D.P. = Discriminating Power

APPENDIX XXI

DIFFICULTY INDEX AND DISCRIMINATING POWER OF TRY-OUT TEST
ITEMS IN ENGLISH FOR STANDARD VIII

Item No.	U	L	D.V	D.P.	No .of items in the final test
1	81	45	0.63	0.36	
2	78	36	0.57	0.42	
3	90	46	0.68	0.44	
4	68	26	0.47	0.42	
5	56	30	0.43	0.26	
6	79	19	0.49	0.60	1
7	69	25	0.47	0.44	2
8	55	24	0.40	0.31	
9	24	13	0.19	0.11	
10	74	45	0.60	0.29	
11	33	30	0.32	0.03	
12	53	35	0.44	0.18	
13	54	25	0.40	0.29	
14	56	23	0.40	0.33	3
15	83	39	0.61	0.44	4
16	72	40	0.56	0.32	5
17	45	14	0.30	0.31	
18	43	27	0.35	0.16	

19	50	18	0.34	0.32	
20	45	19	0.32	0.26	
21	64	22	0.43	0.42	6
22	19	25	0.22	-0.06	
23	15	19	0.17	-0.04	
24	9	14	0.14	-0.05	
25	46	12	0.29	0.34	
26	12	14	0.13	-0.02	
27	53	17	0.35	0.36	7
28	26	27	0.27	-0.01	
29	51	18	0.35	0.33	
30	66	22	0.44	0.44	8
31	80	18	0.49	0.62	9
32	85	28	0.57	0.57	10
33	89	50	0.70	0.39	
34	38	22	0.30	0.16	
35	46	26	0.36	0.20	
36	69	30	0.50	0.39	
37	36	31	0.31	0.34	
38	52	23	0.38	0.29	11
39	50	25	0.38	0.25	12
40	20	21	0.21	-0.01	
41	58	33	0.46	0.25	

42	11	21	0.16	-0.10	
43	59	30	0.45	0.29	13
44	52	25	0.39	0.27	14
45	81	37	0.59	0.44	15
46	56	30	0.43	0.26	16
47	25	16	0.21	0.09	
48	66	31	0.49	0.35	17
49	55	24	0.40	0.31	18
50	49	24	0.38	0.25	19
51	50	21	0.36	0.29	20
52	48	23	0.36	0.25	
53	57	20	0.39	0.37	21
54	55	26	0.41	0.29	22
55	55	30	0.43	0.25	23
56	86	32	0.59	0.54	24
57	86	28	0.57	0.58	25
58	70	25	0.48	0.45	26
59	59	18	0.39	0.41	27
60	34	19	0.27	0.15	
61	19	14	0.17	0.05	
62	64	22	0.43	0.42	28
63	46	36	0.41	0.10	
64	48	22	0.35	0.26	29

65	53	17	0.35	0.36	30
66	41	24	0.33	0.17	
67	51	12	0.32	0.39	
68	64	18	0.41	0.46	31
69	70	23	0.47	0.47	32
70	75	22	0.49	0.53	33
71	49	23	0.36	0.26	34
72	32	31	0.32	0.01	
73	48	14	0.31	0.34	
74	65	15	0.40	0.50	35
75	51	18	0.35	0.33	36
76	40	24	0.32	0.16	
77	22	27	0.25	-0.05	
78	49	21	0.35	0.28	
79	62	18	0.40	0.44	
80	55	24	0.40	0.31	37
81	70	29	0.50	0.41	
82	64	22	0.43	0.42	38
83					
84	70	22	0.46	0.48	39
85	80	23	0.52	0.57	40
86	72	19	0.46	0.53	41
87	73	21	0.47	0.52	42

88	77	18	0.48	0.59	43
89	73	75	0.49	0.48	44
90	56	23	0.40	0.33	45
91	50	20	0.35	0.30	46
92	68	22	0.45	0.46	47
93	60	18	0.39	0.42	48
94	50	22	0.36	0.28	49
95	65	26	0.46	0.39	50

U = Number of right responses in the upper group

L = Number of right responses in the lower group

D.V. = Difficulty Value

D.P. = Discriminating Power

APPENDIX XXII

DIFFICULTY INDEX AND DISCRIMINATING POWER OF TRY-OUT TEST
ITEMS IN HINDI FOR STANDARD VIII

Item No.	U	L	D.V	D.P.	No .of items in the final test
1	98	34	0.66	0.64	
2	100	36	0.68	0.64	
3	98	46	0.72	0.52	
4	92	33	0.63	0.59	1
5	96	26	0.61	0.70	2
6	98	34	0.66	0.64	
7	94	33	0.64	0.61	3
8	82	40	0.61	0.42	4
9	99	35	0.67	0.64	
10	99	37	0.68	0.62	
11	98	31	0.65	0.37	5
12	97	34	0.66	0.63	
13	97	37	0.67	0.60	
14	42	28	0.55	0.14	
15	85	25	0.55	0.60	6
16	88	24	0.56	0.64	7
17	92	31	0.62	0.61	8

18	94	27	0.61	0.67	9
19	99	21	0.60	0.78	10
20	98	31	0.65	0.67	11
21	83	27	0.55	0.56	
22	60	19	0.40	0.41	12
23	86	26	0.56	0.60	13
24	40	33	0.36	0.09	
25	82	22	0.52	0.60	14
26	86	23	0.55	0.63	15
27	97	39	0.68	0.58	
28	98	50	0.74	0.48	
29	99	20	0.60	0.79	16
30	45	27	0.36	0.18	
31	14	33	0.24	0.19	
32	84	27	0.56	0.57	17
33	30	19	0.25	0.11	
34	84	36	0.60	0.48	18
35	96	24	0.60	0.72	19
36	90	15	0.53	0.75	20
37	43	24	0.34	0.19	
38	28	15	0.22	0.13	
39	96	21	0.59	0.75	21
40	82	26	0.54	0.56	22

41	100	38	0.69	0.62	
42	94	32	0.63	0.62	23
43	94	27	0.61	0.67	24
44	34	18	0.26	0.16	
45	78	28	0.53	0.50	25
46	92	28	0.60	0.64	26
47	49	18	0.34	0.31	27
48	80	29	0.55	0.51	28
49	18	31	0.25	-0.13	
50	96	33	0.65	0.63	
51	93	30	0.62	0.63	29
52	70	24	0.47	0.46	
53	96	30	0.63	0.66	
54	89	40	0.65	0.49	
55	87	34	0.61	0.53	30
56	83	27	0.55	0.56	31
57	39	34	0.37	0.05	
58	90	33	0.62	0.57	32
59	31	28	0.30	0.03	
60	77	32	0.55	0.45	33
61	85	41	0.63	0.44	34
62	38	29	0.34	0.09	
63	96	47	0.72	0.49	

65

64	99	15	0.52	0.84	35
65	76	17	0.47	0.59	
66	81	28	0.55	0.53	36
67	32	36	0.34	-0.04	
68	86	37	0.62	0.49	
69	26	22	0.24	0.04	
70	43	14	0.29	0.29	
71	97	26	0.62	0.71	37
72	89	14	0.52	0.75	
73	97	37	0.67	0.60	
74	48	36	0.42	0.12	
75	86	32	0.59	0.54	38
76	88	37	0.63	0.51	39
77	31	24	0.28	0.07	
78	31	39	0.35	0.08	
79	96	29	0.63	0.67	40
80	23	17	0.20	0.06	
81	95	42	0.69	0.53	
82	78	19	0.49	0.59	41
83	75	17	0.46	0.57	
84	86	23	0.55	0.63	42
85	91	23	0.57	0.68	43
86	80	37	0.59	0.43	

87	94	14	0.54	0.80	44
88	95	19	0.57	0.76	
89	74	29	0.52	0.45	45
90	86	22	0.54	0.64	46
91	19	14	0.17	0.05	
92	55	25	0.40	0.30	47
93	83	21	0.52	0.62	48
94	25	20	0.23	0.05	
95	70	27	0.49	0.43	49
96	72	34	0.53	0.38	50
97	33	37	0.35	-0.04	
98	75	23	0.49	0.52	
99	74	39	0.56	0.35	

U = Number of right responses in the upper group

L = Number of right responses in the lower group

D.V. = Difficulty Value

D.P. = Discriminating Power

APPENDIX XXIII

DIFFICULTY INDEX AND DISCRIMINATING POWER OF TRY-OUT TEST
ITEMS IN GENERAL SCIENCE FOR STANDARD VIII

Item No.	U	L	D.V	D.P.	No .of items in the final test
1	54	26	0.40	0.28	
2	80	41	0.61	0.39	1
3	76	47	0.62	0.29	2
4	32	23	0.28	0.09	
5	61	31	0.46	0.30	3
6	33	25	0.29	0.08	
7	59	34	0.47	0.25	4
8	8	6	0.07	-0.02	
9	44	18	0.31	0.26	5
10	48	20	0.34	0.28	6
11	18	17	0.18	0.01	
12	35	18	0.27	0.17	
13	15	16	0.16	-0.01	
14	82	26	0.54	0.56	
15	46	37	0.42	0.09	
16	71	53	0.62	0.18	
17	69	44	0.57	0.28	

18	40	26	0.33	0.14	
19	48	26	0.37	0.22	7
20	44	28	0.36	0.16	
21	60	24	0.42	0.26	
22	25	24	0.30	0.01	
23	56	24	0.40	0.32	
24	42	18	0.30	0.24	
25	53	28	0.41	0.25	8
26	48	29	0.39	0.19	
27	61	24	0.43	0.37	9
28	32	28	0.30	0.04	
29	65	30	0.48	0.35	10
30	79	30	0.55	0.49	
31	87	28	0.58	0.59	11
32	93	45	0.69	0.48	12
33	41	20	0.31	0.21	
34	67	36	0.52	0.31	13
35	73	28	0.51	0.45	14
36	44	21	0.33	0.23	
37	37	28	0.33	0.09	
38	76	35	0.56	0.41	15
39	47	32	0.40	0.15	
40	77	40	0.59	0.37	16

41	26	31	0.29	-0.05	
42	78	33	0.56	0.45	17
43	80	32	0.56	0.48	18
44	39	24	0.32	0.15	
45	71	38	0.55	0.33	19
46	90	35	0.63	0.55	20
47	70	19	0.45	0.51	
48	85	39	0.62	0.46	21
49	42	20	0.31	0.22	
50	71	32	0.52	0.39	
51	14	19	0.17	-0.05	
52	50	19	0.35	0.31	
53	72	24	0.48	0.48	22
54	37	32	0.35	0.05	
55	60	30	0.45	0.30	23
56	38	27	0.33	0.11	
57	30	17	0.24	0.13	
58	21	23	0.22	-0.02	
59	37	16	0.27	0.21	
60	46	29	0.38	0.17	
61	87	47	0.67	0.40	24
62	61	22	0.42	0.39	25
63	55	28	0.42	0.27	26

64	35	13	0.24	0.22	
65	58	27	0.43	0.31	27
66	33	15	0.24	0.18	
67	75	30	0.53	0.45	28
68	27	25	0.26	0.02	
69	61	23	0.43	0.38	29
70	41	21	0.31	0.20	
71	77	33	0.54	0.44	30
72	72	31	0.52	0.41	
73	81	27	0.54	0.54	31
74	81	21	0.51	0.60	
75	44	23	0.34	0.21	
76	4	16	0.01	-0.12	
77	88	37	0.63	0.53	32
78	53	26	0.40	0.27	
79	60	24	0.42	0.36	33
80	39	18	0.29	0.21	
81	33	15	0.24	0.18	
82	61	21	0.41	0.40	34
83	55	25	0.40	0.30	35
84	72	18	0.45	0.54	36
85	46	23	0.35	0.23	
86	42	22	0.32	0.20	

87	37	7	0.22	0.30	
88	52	27	0.40	0.25	37
89	54	28	0.41	0.26	38
90	28	23	0.26	0.05	
91	25	12	0.19	0.13	
92	44	34	0.39	0.10	
93	73	23	0.48	0.50	39
94	48	22	0.35	0.26	40
95	59	24	0.42	0.35	
96	28	15	0.22	0.13	
97	59	12	0.36	0.47	
98	12	14	0.13	-0.01	
99	46	12	0.29	0.34	
100	63	25	0.44	0.38	42
101	56	20	0.38	0.36	
102	71	26	0.49	0.45	43
103	41	27	0.34	0.14	
104	35	24	0.30	0.11	
105	33	17	0.25	0.16	
106	90	25	0.58	0.65	44
107	45	18	0.32	0.27	
108	33	12	0.23	0.21	
109	49	11	0.30	0.38	45

110	59	12	0.36	0.47	
111	68	15	0.42	0.53	
112	38	10	0.24	0.28	
113	60	12	0.36	0.48	46
114	36	19	0.28	0.17	
115	57	23	0.40	0.34	47
116	45	18	0.32	0.27	48
117	56	20	0.38	0.36	49
118	59	24	0.42	0.35	50

U = Number of right responses in the upper group

L = Number of right responses in the lower group

D.V. = Difficulty Value

D.P. = Discriminating Power

APPENDIX XXIV

DIFFICULTY INDEX AND DISCRIMINATING POWER OF TRY-OUT TEST
ITEMS IN MATHEMATICS FOR STANDARD VIII

Item No.	U	L	D.V	D.P.	No .of items in the final test
1	57	16	0.37	0.41	1
2	72	35	0.54	0.37	2
3	70	25	0.47	0.45	3
4	56	39	0.47	0.17	
5	39	37	0.38	0.02	
6	45	29	0.37	0.16	
7	72	30	0.50	0.42	4
8	51	12	0.31	0.39	5
9	25	27	0.26	0.02	
10	64	30	0.47	0.34	6
11	36	28	0.32	0.08	
12	75	40	0.58	0.35	7
13	13	11	0.12	0.02	
14	51	17	0.34	0.34	8
15	19	18	0.19	0.01	
16	41	14	0.28	0.27	
17	44	15	0.30	0.29	
18	63	32	0.48	0.31	9

19	67	29	0.48	0.38	10
20	81	36	0.59	0.45	11
21	30	40	0.35	-0.10	
22	77	41	0.59	0.36	12
23	43	31	0.37	0.12	
24	56	20	0.38	0.36	13
25	42	24	0.34	0.18	
26	45	15	0.30	0.30	14
27	20	19	0.20	0.01	
28	26	18	0.22	0.08	
29	82	19	0.51	0.63	15
30	57	38	0.48	0.19	
31	51	33	0.42	0.18	
32	64	23	0.44	0.41	16
33	76	32	0.54	0.44	
34	36	21	0.29	0.15	
35	52	17	0.35	0.35	17
36	53	23	0.38	0.30	18
37	41	17	0.27	0.24	
38	53	28	0.41	0.25	
39	64	22	0.43	0.42	19
40	72	27	0.50	0.45	
41	47	22	0.35	0.25	20

24

42	21	30	0.26	-0.09	
43	44	22	0.33	0.22	
44	48	23	0.36	0.25	21
45	76	32	0.54	0.44	22
46	55	11	0.33	0.44	23
47	41	17	0.27	0.24	
48	69	29	0.49	0.40	24
49	59	24	0.47	0.35	25
50	51	21	0.36	0.30	26
51	54	27	0.41	0.27	27
52	37	21	0.29	0.16	
53	66	27	0.47	0.39	28
54	51	15	0.33	0.36	29
55	62	30	0.46	0.30	30
56	42	32	0.37	0.12	
57	78	19	0.49	0.59	31
58	71	31	0.51	0.40	32
59	33	22	0.28	0.11	
60	42	23	0.33	0.19	
61	46	25	0.36	0.21	
62	30	24	0.27	0.14	
63	23	22	0.23	-0.01	
64	57	30	0.44	0.25	33

65	50	18	0.34	0.32	34
66	48	22	0.35	0.26	35
67	45	15	0.30	0.30	36
68	46	21	0.34	0.25	37
69	26	12	0.19	0.14	
70	59	31	0.45	0.25	38
71	34	12	0.23	0.22	
72	26	12	0.19	0.14	
73	30	24	0.27	0.14	
74	71	32	0.52	0.39	39
75	24	20	0.22	0.04	
76	55	23	0.39	0.32	40
77	24	31	0.26	-0.07	
78	54	17	0.36	0.37	41
79	33	23	0.28	0.10	
80	54	28	0.41	0.26	42
81	56	21	0.34	0.35	43
82	28	23	0.26	0.05	
83	69	24	0.47	0.45	44
84	60	15	0.38	0.45	45
85	23	11	0.17	0.12	
86	29	26	0.28	0.03	
87	20	17	0.19	0.03	

88	33	22	0.28	0.11	
89	20	20	0.20	0.0	
90	71	32	0.52	0.39	
91	64	19	0.42	0.45	46
92	54	16	0.35	0.38	47
93	33	18	0.26	0.15	
94	70	33	0.52	0.37	48
95	60	30	0.45	0.30	49
96	20	17	0.19	0.03	
97	14	16	0.15	-0.02	
98	24	14	0.19	0.10	
99	60	27	0.44	0.33	50
100	52	26	0.39	0.16	

U = Number of right responses in the upper group

L = Number of right responses in the lower group

D.V. = Difficulty Value

D.P. = Discriminating Power

UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN ENGLISH FOR STD VII

Name.....

Time: 45 mts.

Hostel.....

Mark: 50

Each of the questions has four choices marked A, B, C, D. Write the letter of the correct answer (A or B, or C, or D.) in the space given at the right hand margin.

Fill in the blanks with missing letters.

1 interr—pt.
a o b e c i d u ()

pick out the word with correct spelling (2-3)

2 a funaral b funeral c funerel d funarel ()

3 a machene b machine c mashine d mechine ()

Pick out the wrongly spelt word (4-5)

4 a bright b hill c scater d goddess ()

5 a sily b gaudy c witty d full

Choose the correct meaning (6-8)

6 famous
a known widely b certainly c politely d helpful ()

7 Starve
a suffer from hunger b good health c die in water
d loud cry ()

8 gladly
a happily b painful c settle d praise ()

Fill in the blanks with suitable words: (9-11)

9 People go to market to buy and — things
a sold b selling c sell d sells ()

10 The boys bent — bows and let the arrow fly
a their b there c those d these ()

11 The — of the earth round the sun is called revolution
a movement b moving c motion d moved ()

Fill in the blanks with correct form of the word given in the brackets: (12-13)

12 unless you — (go) in taxi you will miss the train
a go b went c goes d gone ()

13 If he — (study) well, he will get a first class
a studied b study c studies d had studied ()

Fill in the blanks with words opposite in meaning to the word underlined: (14-15)

- 14 Malayalam is easy but mathematics is —
a uneasy b difficult c strange d light ()
- 15 Srilanka is near to India, but America is.—
a long b difficult c next d far ()

Give the opposite gender: (16-17)

- 16 Prince: a Prince b Princess c Queen d King ()
- 17 Poet: a Poem b Writer c Prose d Poetess ()

Pick out the noun form (18-19)

- 18 a ration b rate c rationalise d rational ()
- 19 a enjoy b enjoyment c enjoying d enjoyable ()

Choose the adjective form of: (20-21)

- 20 a weak b week c woke d weaken ()
- 21 a wisdom b unwise c wiseful d wise ()

Choose the correct answer (22-23)

- 22 beauty + ful —
a beautiful b beautiful c beautifull d beautyfultl ()
- 23 move + ing— a moving b moveing c movying d mooving ()

Select the correct alternative (24-32)

- 24 One who rides:
a rider b soldier c driver d none of these ()
- 25 A journey to a sacred place is:
a excursion b pilgrimage c picnic d voyage ()
- 26 'Snack' means:
a Light meal b breakfast c lunch d supper ()
- 27 If we watch ants closely, we can learn more about:
a the value of thrift in life b the importance of cleanliness
c how to live together as a community d bringing up babies ()
- 28 The Key element in the poem 'the wind' is:
a the appearance of the wind b the sounds made by it
c the strength of the wind d Both the appearance and strength ()
- 29 Too many cooks spoil the broth means:
a if too many people try to do something, it will not be well done
b Many cooks together tried to spoil the broth
c If there are some cooks the broth will not be spoiled
d None of these ()
- 30 a piece of land surrounded by water:
a Island b Peninsula c Continent d Marsh ()

- 31 The word 'Parlour' means:
a a hall b a house c a colour d a sitting room ()
- 32 Who wrote the poem 'the native land of mine'?
a Cobham Brewer b Thomas Daruies c R. K. Stevenson
d Mary Howitts ()
Choose the best answer (33-35).
- 33 Try to wake up — you can
a as beautiful b as early as c as small as d as big as ()
- 34 Never lend never — a buy b bring c borrow d borrowed ()
- 35 Who shines all day so bright :
a moon b stars c sun d none of these ()
Pick out the correct answers (36-38)
- 36 Hari — has always been idle was dismissed from school
a who b which c that d how
- 37 The mosque — is made of white marble brought from Iran, was built in 1770.
a which b that c who d how ()
- 38 There is — water in our well
a few b a few c a little d the little ()
Choose the correct preposition : (39-40)
- 39 His son is poor in studies — good at sports
a and b but c or d as ()
- 40 Rip was dump — confusion. a at b in c with d by ()
Choose the correct articles. (41-42)
- 41 — ant is very tiny but it has intelligence
a the b a c an ()
- 42 Ashok had — wollen coat a an b a c the
Choose the correct answers (43-46)
- 43 Could he kill the tiger?
a Yes, he could b Yes, they could c Yes, he kill
d Yes, they are ()
- 44 No sooner did the bell ring — the students entered the class
a which b when c than d that ()
- 45 Australia is the — island in the world.
a large b larger c largest d larged ()
- 46 Does + write = — a write b writes c wrote c written ()
Change the sentences using 'too'
- 47 I am so tired that I can not walk
a I am tired too to walk
b I am tired walk too

c I am too tired to walk

d None of these

()

Turn the gerund in to infinitive

48 Smoking is injurious to health

a Smoking is injurious to health

b To smoking is injurious to health

c To smoke is injurious to health

d Smoke is injurious to health

()

Change the sentence using the comparative degree of 'tall'

49 Rama is not as tall as Krishna

a Rama is not taller than Krishna

b Rama is taller than Krishna

c Krishna is taller than Rama

d None of these

()

Use so that not

50 The boy is too weak to run

a The boy is so weak that he can not run

b The boy is weak so that he can not run

c The boy is not so weak that he can run

d The boy is so weak that he can run

()

UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN HINDI FOR STD VII

Name.....

Time: 45 mts.

Hostel:.....

Marks: 60

നിർദ്ദേശങ്ങൾ:—

1. ഓരോ ചോദ്യത്തിനും a, b, c, d എന്നീ അക്ഷരങ്ങൾ ഇട്ട് 4 ഉത്തരം കൊടുത്തിരിക്കുന്നു. അവയിൽ ഒന്നുമാത്രമാണ് ശരി.

2. ഓരോ ചോദ്യത്തിനും എതിരെയുള്ള ബ്രാക്കറ്റിൽ ശരിയായ ഉത്തരത്തിന്റെ അക്ഷരം എഴുതുക.

1. "अनुदिन" शब्द का अर्थ क्या है? ()

a. रोज़ b. हमेशा c. कभी-कभी d. सबेरे

2. रमा किस प्रतियोगिता में भाग लेती है? ()

a. भाषण में b. कविता पाठमें c. गीत में d. चार सौ मीटर की दौड़ में

3. रमेश को किस रंग की कलम पसन्द है? ()

a. हरे रंग की b. नीले रंग की c. लाल रंग की d. सफेद रंग की

4. लालकिले की ऊँचाई कितनी है? ()

a. एक सौ अड़तीस फुट b. दो सौ अड़तीस फुट c. तीन सौ अड़तीस फुट d. दो सौ फुट

5. ठीक बहुवचन रूप कौन-सा है? ()

a. दीवार b. दीवारें c. दीवारियाँ d. दीवारों

6. कौन-सा शब्द ठीक है? ()

a. मसहूर b. मवहूर c. मजहूर d. मशहूर

7. राजू — छोटा भाई रघु है। ()

a. का b. के c. की d. को

8. वे बच्चों — धर्म सिखाते हैं ()

a. को b. का c. ने d. से

9. "संग" नामक कविता किसने लिखी? ()

a. द्वारिका प्रसाद माहेश्वरी ने b. सोहनलाल द्विवेदी ने c. बच्चन जी ने d. महादेवी बर्मा ने

10. फूल से खेलने से क्या होगा? ()

a. सुगन्ध पा जाएगा b. गंदे बन जाएगा c. कड़ुए बोल बोलेगा d. मीठे बोल बोलेगा

11. कौन-सा वाक्य ठीक है? ()

a. मैं पढता हूँ b. मैं पढते हूँ c. मैं पढते हो d. मैं पढता है

- 12 सही रूप कौन-सा है? मैं + का = — ()
a मुझका b मुझे c मैंका d मेरा
- 13 आप काम — । ()
a करो b करिए c कीइए d कीजिए
- 14 तुलसीदास का बचपन कैसे बीता? ()
a सुख से b दुःख से c अलसता से d कठिनाइयों से
- 15 सही रूप कौन-सा है? कौन + का = — ()
a कौनका b किसका c किसीका d किसीकी
- 16 जापान में कौन-सा धर्म चलता है? ()
a ~~बौद्ध~~ धर्म b हिन्दु धर्म c सिक्क धर्म d इस्लाम धर्म
- 17 समानार्थक शब्द क्या है? जापान में रहनेवाला = — ()
a बंगाली b जापानी c जापानु d बंगला
- 18 "दुश्मन" शब्द का विलोम शब्द क्या है? ()
a शत्रु b मित्र c दोस्त d सहेली
- 19 'बढ़े चलो' नामक कविता किसने लिखी? ()
a सोहनलाल दिवेदी b मैथिली शरणगुप्त c द्वारिका प्रसाद माहेश्वरी d पंतजी
- 20 विनोबाजी का कौन-सा यज्ञ प्रसिद्ध है? ()
a स्वदेशी आन्दोलन यज्ञ b अहिंसा यज्ञ c सत्याग्रह यज्ञ d भूदान यज्ञ
- 21 बहुवचन रूप कौन सा है? आदमी — ()
a आदमियाँ b आदमी c आदमियों d आदमिये
- 22 — सोते हैं । ()
a बच्चा b बेटा c बच्चे d बेटी
- 23 दशहरा किस महीने में आता है? ()
a अक्टूबर में b नवंबर में c जनवरी में d फरवरी में
- 24 होली किस महीने में आती है? ()
a श्रावण b फालगुन c वैशाख d आषाढ
- 25 — को हम स्वतन्त्रता दिवस मनाते हैं । ()
a अक्टूबर दो b आगस्त पन्द्रह c जनवरी छद्बीस नवंबर दो
- 26 सही रूप कौन-सा है? वह + से = — ()
a उसे b वहसे c उसके d उससे
- 27 पूर्णभूतकाल कौन-सा है । ()
a रहीम आया । b रहीम आया है । c रहीम आ रहा है । d रहीम आया था ।

- 28 मैं ने गाँधीजी को ———। ()
a देखे थे b देखी थी c देखा था d देखी थी
- 29 मैं + से = ——— ()
a मैंसे b मेसे c मुझसे d मुझे
- 30 वे + ने = ——— ()
a वेने b उन्होंने c उसने d इन्होंने
- 31 ये + को = ——— ()
a इनको b इसको c येको d उनको
- 32 तितली के पंख कैसे हैं ? ()
a रंगविरंगे b काले c सफेद d लाल
- 33 नीम के फल को क्या कहते हैं ? ()
a इमली b निंबोली c इगलू d नमक
- 34 'कौआ' शब्द का बहुवचन रूप क्या है ? ()
a कौआ b कओ c कोएँ d कोए
- 35 शास्त्रीजी का परिवार कैसा था ? ()
a गरीब b अमीर c सुखलोलुप d आलसी
- 36 शास्त्रीजी के जीवन का लक्ष्य क्या था ? ()
a प्रधान मंत्री बन जाना b सत्याग्रह करना c भारत की स्वतन्त्रता d भारत की गुलामी
- 37 भरत क्यों दौड़कर घर पहुँचा ? ()
a वर्ष होने से b गर्मी होने से c जाड़ा होने से d जुकाम होने से
- 38 भाप क्यों ऊपर उठती है ? ? ()
a भारी होने से b हल्की होने से c गरम होने से d सर्दी होने से
- 39 दिल्ली ने कैसे अपनी भूख मिटायी ? ()
a भात खाकर b सब्जी खाकर c चूहों को खाकर d मिठाई खाकर
- 40 एस्किमो के घर को क्या कहते हैं ? ()
a खेमा b झोंपड़ी c स्लेज d इगलू
- 41 अनस्ता कहाँ रहता है ? ()
a दक्षिण ध्रुव में b उत्तर ध्रुव में c नेपाल में d भारत में
- 42 वंशहिए की गाड़ी को क्या कहते हैं ? ()
a स्लेज b इगलू c निंबोली d खेम
- 43 पौधा कहाँ सोया था ? ()
a बीज के अन्दर b बीज के बाहर c फूल के अन्दर d मिट्टी में

44. पौधों को किसने जगाया? ()
a मन्दपवन ने b सूरज ने c काली बदलीने d हवा ने
45. एडीसन कहां का रहनेवाला था? ()
a रूस b अमरीका c भारत d केरल
46. शुद्ध वाक्य कौन-सा है? ()
a मुझे पढ सकता है। b मुझे पढ सकता हूँ। c मैं पढना सकता है। d मैं पढ सकता हूँ
47. कौन-सा वाक्य ठीक है? ()
a सीता सिनेमा देखना चाहता है। b सीता सिनेमा देखनी चाहती है।
c सीता सिनेमा देखना चाहती है। d सीता सिनेमा देखा चाहती है।
48. अपूर्ण भूतकाल कौन-सा है? ()
a मैं ने पढा। b मैं पढता था। c मैं पढा था। d मैं पढता हूँ।
49. अक्षरों में लिखाए:- 1947 = --- ()
a उन्नीस सौ चालीस b उन्नीस सौ बयालीस c उन्नीस सौ सैंताबीस
d अठारह सौ चालीस
50. मन पसन्द काम = --- a മനസ്സിനിയ്യപ്പെട്ട ജോലി b നല്ല ജോലി ()
c മനസ്സിനിയ്യപ്പെടാത്ത ജോലി d മനസ്സിനിയ്യപ്പെട്ട പണയം.

~~51. इन्हीं पर पांच वाक्य लिखाए:- हमारा स्कूल~~

UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN SCIENCE FOR STD VII

പേര്:

Time: 45 mts

ഹോസ്റ്റൽ:

Mark: 50

നിർദ്ദേശങ്ങൾ:-

1. ഓരോ ചോദ്യത്തിനും A, B, C, D എന്നീ അക്ഷരങ്ങൾ ഇട്ട് 4 ഉത്തരം കൊടുത്തിരിക്കുന്നു. അവയിൽ ഒന്നുമാത്രമാണ് ശരി.
 - a അന്തരീക്ഷത്തിൽ ഉപയോഗിക്കുന്ന വാഹനം
 - b കോശങ്ങളിലെ തന്മാത്രകൾ
 - c കോശങ്ങളുടെ ആകൃഷ്ടബലം
 - d അജ്ഞാതമായ കാരണങ്ങളാൽ
2. താഴെപ്പറയുന്നവയിൽ സംയുക്തമല്ലാത്തത് എന്ത്?
 - a ജലം
 - b അന്തരീക്ഷവായു
 - c പഞ്ചസാര
 - d അയൺ സൾഫൈഡ്
3. ഉയർന്ന തലത്തിൽനിന്നും താഴ്ന്ന തലത്തിലേക്ക് ദ്രാവകങ്ങൾ മാറാൻ ഉപയോഗിക്കുന്ന ലളിതമായ ഉപകരണം—
 - a സിറിഞ്ച്
 - b ലിഫ്റ്റ് പമ്പ്
 - c മോഴ്സ് പമ്പ്
 - d സൈഫൺ
4. ഒരു ഇരുമ്പ് ശരീരത്തിൽ വന്നിരുന്നാൽ അത് നമുക്കറിയാൻ കഴിയുന്നത്—
 - a ഇരുമ്പ് പാറുന്ന ശബ്ദം കേട്ടിട്ടാണ്
 - b നാഡീകോശങ്ങൾ ആ വിവരം തലച്ചോറിലെത്തിക്കുന്നതുകൊണ്ടാണ്
 - c സ്വർശിക്കുന്ന എന്തിനെയും തിരിച്ചറിയാൻ തപാൽ കഴിയുന്നതിനാലാണ്
 - d ഇരുമ്പ് വന്നിരിക്കുന്നത് നാം കാണുന്നതുകൊണ്ടാണ്
5. സങ്കീർണ്ണ സ്വഭാവമുള്ള ബഹുകോശജീവിയുടെ ശരീരത്തിന് നിശ്ചിതമായ ഘടനാതലങ്ങളുണ്ട്. അവ യഥാക്രമം—എന്നിവയാണ്.
 - a അവയവങ്ങൾ, അവയവവ്യവസ്ഥ, കോശങ്ങൾ, കലകൾ
 - b കോശങ്ങൾ, അവയവങ്ങൾ, അവയവവ്യവസ്ഥ, കലകൾ
 - c കലകൾ, കോശങ്ങൾ, അവയവവ്യവസ്ഥ
 - d കോശങ്ങൾ, കലകൾ, അവയവങ്ങൾ, അവയവവ്യവസ്ഥ
6. നാശന സ്വഭാവമില്ലാത്ത ആസിഡ് ഏത്?
 - a ഹൈഡ്രോക്ലോറിക് ആസിഡ്
 - b നൈട്രിക് ആസിഡ്
 - c അസറ്റിക് ആസിഡ്
 - d സൾഫ്യൂറിക് ആസിഡ്
7. 'F. M. S.' എന്നതിലെ 'S'—സൂര്യനും, 'M'—ചന്ദ്രനും 'E'—ഭൂമിയുമാണ്. അവ ജ്യോതസമയലായാൽ സംഭവിക്കുന്നത്—
 - a ചന്ദ്രഗ്രഹണമുണ്ടാകും
 - b സൂര്യന്റെ നിഴൽ ഭൂമിയിൽ പതിക്കും
 - c ഭൂമിയുടെ നിഴൽ ചന്ദ്രനിൽ പതിക്കും
 - d സൂര്യഗ്രഹണമുണ്ടാകും
8. താഴെപ്പറയുന്നവയിൽ ജീവിതകാലം മുഴുവൻ കോശങ്ങൾ വളർന്നു വിഭജിക്കുന്ന അവയവമേത്?
 - a തലച്ചോറ്
 - b ത്വക്ക്
 - c വൃക്ക
 - d കരൾ
9. ഓക്സിജൻ, കാർബൺഡയോക്സൈഡ്, നീരാവി എന്നിവയുടെ വിനിമയത്തെ നിശ്ചയിക്കുന്ന കലകളാണ്—
 - a ഉപരിവൃതികലകൾ
 - b മെറിസ്റ്റമികകലകൾ
 - c സംവഹനകലകൾ
 - d മെക്കാനിക്കൽ കലകൾ
10. മൂലലോമങ്ങൾ നിർവ്വഹിക്കുന്ന ധർമ്മം—
 - a അഭിഗമനത്തെ സഹായിക്കുക
 - b മണ്ണിൽനിന്നും ജലവും ലവണങ്ങളും വലിച്ചെടുക്കുക
 - c സസ്യത്തെ മണ്ണിലുറപ്പിച്ചു നിറുത്തുക
 - d സസ്യശരീരത്തിന് ഉറപ്പു നൽകുക

- 11 എന്തിനെയാണ് 'പെരിസ്റ്റാറംസിസ്' എന്നു പറയുന്നത്?
a രക്തം കട്ടപിടിക്കുന്നതിനെ b ഞരമ്പുകളിലൂടെ രക്തത്തിന്റെ തരംഗ രൂപത്തിലുള്ള ഒഴുക്കിനെ c അന്നനാളഭിത്തിയിലെ പേശികളുടെ ചലനത്തെ d പേശീചലനങ്ങൾക്ക് പൊതുവിൽ പറയുന്നു []
- 12 കോശങ്ങളിൽ വെച്ച് ഗ്ലൂക്കോസിനെ വിഘടിപ്പിച്ച് ഊർജ്ജത്തെ സ്വതന്ത്രമാക്കുന്ന പ്രവർത്തനമാണ് _____
a പ്രഭാകലനം b ഉച്ഛ്വാസനം c നിശ്വാസം d കോശശ്വാസനം []
- 13 നിങ്ങൾ ഒരു കോൺകേവ് ദർപ്പണത്തിന്റെ മുന്നിൽ നിൽക്കുന്നു. പക്ഷെ നിങ്ങളുടെ പ്രതിബിംബം കിട്ടുന്നില്ല. അതിനാൽ നിങ്ങൾ നിൽക്കുന്നത് _____
a കോൺകേവ് ദർപ്പണത്തിന്റെ മുന്നിലല്ല b ഒരു സമാന്തര ദർപ്പണത്തിന്റെ മുന്നിലാണ് c കോൺകേവ് ദർപ്പണത്തിന്റെ ഫോക്കസിലാണ് d കോൺകേവ് ദർപ്പണത്തിന്റെ Fനും Pയ്ക്കും ഇടയിലാണ് []
- 14 വലിഞ്ഞ ചർമ്മത്തിന്റെ കമ്പനംമൂലം ശബ്ദമുണ്ടാകുന്ന ഉപകരണമാണ് _____
a തബല b വയലിൻ c പുല്ലാങ്കുഴൽ d ഹാർമ്മോണിയം []
- 15 സംരക്ഷണം പ്രധാന ധർമ്മമായിട്ടുള്ള ജന്തുക്കൾകളാണ് _____
a പേശികൾ b എപ്പിത്തീലിയകൾ c നാഡീകൾ d സംയോജകകൾ []
- 16 താഴെപ്പറയുന്നവയിൽ ആസിഡിന്റെ സ്വഭാവമല്ലാത്തതേത്?
a നീല ലിറ്റ്മസിനെ ചുവപ്പിക്കുന്നു b സോപ്പുപോലെ വഴുവഴുപ്പുണ്ട് c അതിൽ അടങ്ങിയ പൊതുഘടകമാണ് ഹൈഡ്രജൻ d കാർബണേറ്റുകളുമായി പ്രവർത്തിച്ച് കാർബൺഡയോക്സൈഡുണ്ടാക്കുന്നു. []
- 17 വായുവിലുള്ള എന്തിന്റെ അളവാണ് 'ഹ്യൂമിഡിറ്റി'?
a പൊടിപടലത്തിന്റെ b മുഴുവൻ വാതകത്തിന്റെ c അലസവാതകങ്ങളുടെ d വായുവിലെ ഇർപ്പത്തിന്റെ []
- 18 രക്തസംക്രമണം എന്നുപറയുന്നത് _____
a ശരീരത്തിൽ മുഴുവൻ രക്തം സഞ്ചരിക്കുന്നതിനെയാണ് b രക്തം പോഷകാംശവും ഓക്സിജനും കോശങ്ങളിലെത്തിക്കുന്നതിനെയാണ് c ആരോഗ്യമുള്ള ഒരാളിൽനിന്നും രക്തക്കുറവുള്ളയാളിന് രക്തം നൽകുന്നതിനെയാണ് d ശരീരത്തിൽനിന്നും രക്തം വാർന്നുപോകുന്നതിനെയാണ് []
- 19 താഴെ പറയുന്നവയിൽ കായിക പ്രജനനത്തിനു യോജിക്കാത്ത പ്രസ്താവനയേത്
a പയർവിത്തുമുളച്ച് പുതിയ പയർചെടിയുണ്ടാകുന്നു b കരിമ്പിന്റെ കാണെത്തിൽ നിന്നും പുതിയ കരിമ്പുണ്ടാകുന്നു c ബ്രയോഫിറ്റത്തിന്റെ ഇലയിൽ നിന്നും പുതിയ സസ്യമുണ്ടാകുന്നു d ആര്യവേപ്പിന്റെ വേരിൽനിന്നും പുതിയ സസ്യമുണ്ടാകുന്നു []
- 20 രണ്ട് ഹൈഡ്രജൻ ആറ്റം ഒരു സൗഹൃദ ആറ്റം നാലു ഓക്സിജൻ ആറ്റം ഇവ അടങ്ങിയ സംയുക്തമാണ് _____
a ഹൈഡ്രോക്ലോറിക് ആസിഡ് b നൈട്രിക് ആസിഡ് c മെർക്കുറിക് ക്ലോറൈഡ് d സൾഫ്യൂറിക് ആസിഡ് []
- 21 ചന്ദ്രോപരിതലത്തിൽ പകൽ 115° -വരെയും രാത്രിയിൽ -130°C വരെയുമാണ് ഉഷ്ണാവസ്ഥ. ഇതിനുള്ള വിശദീകരണം താഴെപ്പറയുന്നവയിൽ ഏതു?
a ചന്ദ്രൻ സൂര്യനോടു കൂടുതൽ അടുത്തു സ്ഥിതി ചെയ്യുന്നു. b ചന്ദ്രോപരിതലത്തിൽ പതിക്കുന്ന സൂര്യകിരണങ്ങൾക്ക് ചൂടു കൂടുതലാണ് c ചൂടിനെയും തണുപ്പിനെയും തടയാൻ ചന്ദ്രനിൽ വാതകാന്തരീക്ഷമില്ല d സസ്യങ്ങളില്ലാത്തതിനാലാണ് ഇങ്ങനെ സംഭവിക്കുന്നത് []
- 22 'സിയോൽക്കോവ്സ്കി' എന്ന ശാസ്ത്രജ്ഞൻ അറിയപ്പെടുന്നത് _____
a ആധുനിക റോക്കറ്റിന്റെ പിതാവ് b വൈദ്യശാസ്ത്രത്തിന്റെ പിതാവ് c പാരമ്പര്യ ശാസ്ത്രത്തിന്റെ പിതാവ് d ആദ്യത്തെ ശൂന്യാകാശസഞ്ചാരി []

23. ഇരുമ്പ് ഒരു പ്രധാന ഘടകമായിട്ടുള്ളതു. ഓക്സിജൻ കാർബൺഡൈ ഓക്സൈഡ് ഇവയുടെ അംശമനത്തിന് സഹായിക്കുകയും ചെയ്യുന്ന ഒരു പദാർത്ഥം—
a ഹീമോഗ്ലോബിൻ b ഫ്ലൂറോലൈറ്റ് c പ്ലാസ്മ d കോശദ്രവ്യം []
24. നിറം മാറ്റംകൊണ്ടു ആസിഡിന്റെയോ ആൽക്കലിയുടെയോ സാന്നിദ്ധ്യം വ്യക്തമാക്കുന്ന പദാർത്ഥം താഴെപ്പറയുന്നവയിൽ ഏതു?
a കാസ്റ്റിക് സോഡ b മഞ്ഞൾ c സോഡിയം ക്ലോറൈഡ് d ചുണ്ണാമ്പ് []
25. ഉപ്പുവെള്ളത്തിൽനിന്നും ശുദ്ധജലം വേർതിരിച്ചെടുക്കുന്ന രീതിയാണ്—
a സേദനം b തെളിച്ചാൽ c പുറംചികാനം d ബാഷ്പീകരണം []
26. മരച്ചീനി, മത്സ്യം, പച്ചക്കറികൾ, പഴങ്ങൾ ഇവയെപ്പോലുള്ള ആഹാരമാണ്—
a സമീകൃതാഹാരം b പാവപ്പെട്ടവന്റെ സമീകൃതാഹാരം c സമ്പൂർണ്ണാഹാരം d സമ്പൂർണ്ണ സമീകൃതാഹാരം []
27. ജലം, ക്ഷേണം എന്നിവയിലൂടെ പകരുന്ന ഒരു രോഗം—
a ടൈഫോയിഡ് b ഇൻഫ്ലുവൻസ c കഷ്യം d എച്ച്ഡിഎസ് []
28. താഴെപ്പറയുന്നതിൽ കമ്പ്യൂട്ടറിന്റെ ഭാഗമല്ലാത്തതു ഏതു?
a ഇൻപുട്ട് യൂണിറ്റ് b മെമ്മറി യൂണിറ്റ് c കമാൻഡ് യൂണിറ്റ് d ഔട്ട്പുട്ട് യൂണിറ്റ് []
29. സോഡിയം, ബോറോൺ, ഓക്സിജൻ എന്നിവ ചേർന്ന രാസവസ്തു—
a അലൂമിനിയം, ബ്രോമൈഡ്, b മെർക്കുറിക് ക്ലോറൈഡ് c ഫോസ്ഫറസ് പെന്റോക്സൈഡ് d ബോറാക്സ് (ബോറാക്സ്) []
30. മാധ്യമത്തിന്റെ സഹായമില്ലാതെ താപം പ്രസരിക്കുന്ന രീതിയാണ്—
a വികിരണം b സംവഹനം c ചാലനം d വിസരണം []
31. ഒരു കോൺവെക്ട് മിറ്ററിൽ പതിക്കുന്ന സമാന്തരകിരണം പ്രതിപതനത്തിന് ശേഷം—
a സംപ്രീകൃതം b വിപ്രീകൃതം c ചിതാടിപ്പോകുന്നു d സമാന്തരമായിപ്പോകുന്നു []
32. വായുവിൽ പ്രതിധ്വനി കേൾക്കാനുള്ള പ്രതിപതന തലത്തിന്റെ ഏറ്റവും കുറഞ്ഞ ദൂരമാണ്—
a 17 മീറ്റർ b 340 മീറ്റർ c 34 മീറ്റർ d 71 മീറ്റർ []
33. കാലാവസ്ഥാ പ്രവചനത്തിന് സഹായിക്കുന്ന ഇന്ത്യൻ ഉപഗ്രഹം—
a ഇൻസാറ്റ് b സ്രോസ് c ഐ.ആർ.എസ്. d ആപ്പിൾ []
34. പുമ്പൊടി ജനിയുടെ അഗ്രത്തിലേക്കു മാറ്റപ്പെടുന്ന പ്രവർത്തനമാണ്—
a ബീജാകരണം b ബീജസങ്കലനം c പരാഗണം d വിശ്ലേഷണം []
35. ഒരു സമതല ദർപ്പണത്തിലെ പ്രതിബിംബം—ആയിരിക്കും.
a അയഥാർത്ഥം b യഥാർത്ഥം c വസ്തുവിനേക്കാൾ ചെറുത്ത് d തലകീഴായത്ത് []
36. ശൈത്യകാലത്തു ജലവിതരണക്കുഴൽ പൊട്ടുന്നു. ഇതിന് കാരണം—
a തണുപ്പു കൂടുമ്പോൾ പൈപ്പ് സങ്കോചിക്കുന്നു b തണുപ്പു കൂടുമ്പോൾ ജലം ഐസാകുന്നതിനാൽ അത് വകുസിക്കുന്നു. c മേന്മകുറഞ്ഞ പൈപ്പു പയോഗിക്കുന്നു d തണുപ്പുകാലത്തു പൈപ്പിലൂടെ ഒഴുകുന്ന ജലത്തിന് മർദ്ദം കൂടുതലാണ് []
37. 100 ഗ്രാം ജലം ചൂടാക്കി അതിന്റെ ഉഷ്ണാവ് 40°C-യിൽനിന്നും 50°C-യിലേക്കു ഉയർത്തിയാൽ ജലത്തിന് ലഭിക്കുന്ന താപം—
a $4.2 \times 100 \times 10$ ജൂൾ b $4.2 \times 100 \times 40$ ജൂൾ
c $4.2 \times 100 \times 50$ ജൂൾ d $42 \times 100 \times 10$ ജൂൾ []

38. നിങ്ങളുടെ കിണറ്റിൽ കുത്താടികളെ കണ്ടാൽ അവയെ നശിപ്പിക്കുന്നതിന് ഏതു മാർഗ്ഗം സ്വീകരിക്കും ?
 A. മണ്ണെണ്ണ ഒഴിക്കും B. ഏതാനും ശുദ്ധമത്സ്യങ്ങളെ വളർത്തും
 C. DDT തളിക്കും D. പൊട്ടാസ്യം പെർമാൻഗനറ്റ് ഇടും

39. താഴെ കൊടുത്തിരിക്കുന്നവയിലെ തെറ്റായ പ്രസ്താവനയേത്?
 a ഏറ്റവും ശുദ്ധമായ ജലം കഴിക്കണം. b ഏറ്റവും വൃത്തിയുള്ള ഭക്ഷണം കഴിക്കണം. c ഏറ്റവും ശുദ്ധമായ ഓക്സിജൻ ശ്വസിക്കണം. d ഏറ്റവും ശുചിയായി ശരീരത്തെ സൂക്ഷിക്കണം. []

40. പർവ്വതാരോഹകർ ശ്വസിക്കാനുള്ള വായു ഒപ്പം കൊണ്ടുപോകുന്നു. ഏതു കൊണ്ടാണ്?
 a വളരെ ഉയരത്തിലുള്ള വായു അശുദ്ധമാണ് b അത്യന്തത്തിലിടെ വായു വിന്ദം സാന്ദ്രത അധികമായതിനാൽ അത് ശ്വസിക്കാൻ പറ്റില്ല b ഉയരം കൂടുന്തോറും വായുമർദ്ദം കുറയുന്നതിനാൽ ശ്വസിക്കാൻ ബുദ്ധിമുട്ടാണ് d ഉയരം കൂടുന്തോറും മർദ്ദം കൂടുന്നതിനാൽ ശ്വസിക്കാൻ വിഷമമാണ് []

41. രക്തക്കുഴലിൽ 'കൊളസ്ട്രിറോൾ' സംഭരിക്കപ്പെടുന്നത് ഏതു തരം ആഹാരം കഴിക്കുന്നവരിലാണ്?
 a സസ്യജന്യ ഭക്ഷണം മാത്രം കഴിക്കുന്നവരിൽ b സസ്യജന്യ ഭക്ഷണങ്ങൾ തുല്യ അളവിൽ കഴിക്കുന്നവരിൽ c ജന്തുജന്യ ഭക്ഷണം അധികം കഴിക്കുന്നവരിൽ d കൂടുതൽ സസ്യോഹാരവും കറുപ്പ്, ജന്തുജന്യോഹാരവും, കഴിക്കുന്നവരിൽ. []

42. ഒരു കളത്തിൽനിന്നും 12 മീറ്റർ ഉയരത്തിലുള്ള ഒരു ടാങ്കിലേക്ക് വെള്ളം പമ്പ ചെയ്യുന്നു. അത് ഏതു തരം പമ്പായിരിക്കും?
 a വാക്വം പമ്പ് b ഫോഴ്സ് പമ്പ് c ലിഫ്റ്റ് പമ്പ് d കമ്പ്രഷൻ പമ്പ് []

43. ചാലനം മുഖേന താപം പ്രസരിക്കുന്ന ഒരു വസ്തുവാണ്
 a ജലം b വായു c തടി d അലൂമിനിയം. []

44. താഴെപ്പറയുന്നവയിൽ 'ബീവറേജുകൾക്കായുള്ള സസ്യങ്ങളേത്'?
 a തെങ്ങ്, നിലക്കടല, സൂര്യകാന്തി b തേക്ക്, വീട്ടി, ആഞ്ഞിലി
 c കരുമുളക്, ഇഞ്ചി, മുഞ്ഞാട d കാപ്പി, ചായ, കൊക്കോ []

45. ഫംഗസ് മുഖം തെങ്ങിനണ്ടാകുന്ന ഒരു രോഗമാണ്—
 a മുണ്ടയപ്പ് b മൊസൈക്ക് രോഗം c വേരുചീയൽ d ഇരുമ്പ് രോഗം. []

46. ഓക്സിജൻ ജലത്തിൽ ലയിക്കുന്നതുകൊണ്ടുള്ള ഏറ്റവും വലിയ പ്രയോജനം—
 a ജലം ഏറ്റവും നല്ല ലായകമായി അറിയപ്പെടുന്നു എന്നതാണ്
 b കരയിലെ ജീവികൾക്ക് ജലത്തിലും വസിക്കാം എന്ന സൗകര്യമുണ്ട്
 c ജലത്തിന് നല്ല സ്വാദ് ലഭിക്കുന്നു d ജലജീവികൾക്ക് അപയുടെ ജീവൻ നിലനിറുത്താൻ കഴിയുന്നു. []

47. കെട്ടിടം നിർമ്മിക്കുമ്പോൾ അടിത്തറ ചുമരിനേക്കാൾ വിസ്തൃതിയിൽ നിർമ്മിക്കുന്നത്—
 a അത് സൗകര്യപ്രദമായ നിർമ്മാണരീതിയായതിനാലാണ് b കെട്ടിടം തറയിൽ ചെലുത്തുന്ന മർദ്ദം കുറയാൻ വേണ്ടിയാണ് c കെട്ടിടം കാരറത്ത് ഉലയാതിരിക്കാൻ വേണ്ടിയാണ് d ചുമരിന് ബലം കൂട്ടാൻ വേണ്ടിയാണ് []

48. സസ്യ പരിപാലന മാർഗ്ഗങ്ങളിൽപെടാത്തത് താഴെപ്പറയുന്നവയിൽ ഏതു?
 a മണ്ണ് ഇളക്കിമാറ്റുന്നു b ഇല, പൂവ്, കിഴങ്ങ് ഇവ ശേഖരിക്കുന്നു
 c സസ്യനിരനിരയായി നടുന്നു d നിലം നിരപ്പാക്കുന്നു []

49. ഒരു ബോയിലിംഗ് ട്യൂബിൽ ഒരു വരപദാർശനമെടുത്തു ചൂടാക്കിയപ്പോൾ ആദ്യം അതിന് തവിട്ടുനിറവും പിന്നീട് കറുപ്പുനിറവുമുണ്ടായി. ട്യൂബിന്റെ അകവശത്ത് മുകളിൽ ജലത്തുള്ളികളും കണ്ടു. ആ വരവസ്തു ഏതു?
 a ഉപ്പ് b പഞ്ചസാര c സൾഫർ d ഇരുമ്പുപൊടി []

50. അക്വേറിയത്തിലെ മത്സ്യം കൂടെ കൂടെ ജലോപരിതലത്തിലെത്തുന്നതു—
 a സന്ദർശകർക്ക് ദർശനം നൽകാൻ b തൃപ്തനടക്കുന്നതിനിടയിൽ വെറുതെ വരുന്നതാണ് c ജലത്തിൽ അലിഞ്ഞുചേർന്നിരിക്കുന്ന ഓക്സിജന്റെ അളവ് കുറയുന്നതുകൊണ്ട് d അന്തരീക്ഷവായു ശ്വസിക്കാൻ []

APPENDIX XXVII (a)

DEPARTMENT OF ADULT EDUCATION AND EXTENSION SERVICES
UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN SCIENCE FOR STANDARD VII
(English version)

Time: 45 mts.

Mark: 50

INSTRUCTIONS

1. Four answers are given for each question. Only one is correct.
2. In the answer sheet, answers are given in A, B, C and D. Draw a circle around the correct alphabet. Each question carries one mark.

1. Water and minerals reach to the leaves of very tall plants due to -
 - a. atmospheric pressure
 - b. pulling force and pushing force in the cells
 - c. attractional force
 - d. unknown reasons.
2. Which is not a compound?
 - a. Water
 - b. Atmospheric air
 - c. Sugar
 - d. Iron sulphide
3. A simple device to transfer liquids from a higher level to a lower level -
 - a. Syringe
 - b. Lift pump
 - c. Force pump
 - d. Siphon
4. We know the presence of a housefly on our body -
 - a. by the moving sound of the fly
 - b. the nerve cells transmits the message to the brain

- c. the skin can identify the presence of things
 - d. we see the fly
5. There are definite levels of organisation in a complex multicellular organisms. They are—
- a. organs, organ system, cells, tissues
 - b. cells, organs, organ system, tissues
 - c. tissues, cells organ system
 - d. cells, tissues, organs, organ system
6. Acids which are not corrosive –
- a. Hydrochloric acid
 - b. Nitric acid
 - c. Acetic acid
 - d. Sulphuric acid
7. In E.M.S. S—Sun, M—Moon, E—Earth - if they are in a straight line –
- a. Lunar eclipse occur
 - b. The shadow of the sun falls on the earth
 - c. The shadow of the earth falls on the room
8. The organ in which cells grow and divide throughout life –
- a. Brain
 - b. Skin
 - c. Kidney
 - d. Liver
9. The tissue which controls the exchange of oxygen, carbon dioxide and water vapour –
- a. Dermal tissue
 - b. Meristematic tissue
 - c. Vascular tissue
 - d. Mechanical tissue

10. The functions of root hairs -

- a. helps to uplift
- b. Absorbs water and minerals from the soil
- c. To fix the plant in the soil
- d. Give strength to the plant body

11. What is Peristalsis?

- a. Clotting of blood
- b. The Wavular motion of the blood in blood vessels
- c. Contraction and expansion movement of oesophagus
- d. Muscular movement.

12. Energy is released by the decomposition of glucose in the cells

- a. Photosynthesis
- b. Inhalation
- c. Exhalation
- e. cellular respiration.

13. You are standing in front of a concave mirror. You are not getting the image. So you are standing -

- a. Not in front of a concave mirror
- b. In front of a parallel mirror
- c. In the focus of a concave mirror
- d. Between F and P of a concave mirror

14. Instrument which makes sound by the vibration of a stretched membrane

- a) Thabala
- b) Violin
- c) Flute
- d) Harmonium

15. Animal tissues which have protection as its main function

- a. Muscular tissue
- b. Epithelial tissue

- c. Nervous tissue
 - d. Connective tissue
16. Which is the quality of a nonacid in the following -
- a. Turn blue litmus red
 - b. They have a soapy effect
 - c. Hydrogen is the common element present in it
 - d. They react with carbonates producing carbon dioxide
17. What is humidity?
- a. Dust particles
 - b. All gases
 - c. Inactive compounds of air
 - d. The presence of water vapour in air
18. Blood transfusion means -
- a. Circulation blood in the whole body
 - b. Blood carries nutrients and oxygen to cells
 - c. From a healthy person, blood is transferred to another body
 - d. Loss of blood from the body.
19. Which is nonvegetative reproduction in the following -
- a) Bean seed develop into a bean plant
 - b) Sugar cane grows from the sugar cane stem
 - c) The new bryophilam plant develop from its leaf
 - d) New plants grow from the roots of neem
20. The compound that contains two hydrogen atom, one sulphur atom, four oxygen atom is -
- a. Hydrochloric acid
 - b. Nitric acid
 - c. Mercuric acid
 - d. Sulphuric acid

21. During day the surface temperature of the moon rise upto 115°C and at night falls to -13°C . This is due to -

- a. The moon is very close to the sun
- b. The sunrays that fall on the surface of the moon has more heat
- c. There is atmosphere to prevent the heat or cold
- d. There is no plants to prevent.

22. The scientist 'Tsiolkovski' is famous in -

- a. Father of modern rockets
- b. Father of medical science
- c. Father of Genetics
- d. The first space traveller

23. A substance that contain iron as main factor and promote the uplift of oxygen and carbon dioxide -

- a. Haemoglobin
- b. Platelets
- c. Plasma
- d. Cell sap

24. Which substance show the presence of acids or alkali by its colour charge?

- a. Caustic soda
- b. Turmeric
- c. Sodium chloride
- d. Calcium carbonate

25. The method of separating pure water from salt water -

- a. Distillation
- b. Decantation
- c. Crystallisation
- d. Evaporation

26. Food that includes tapioca, fish, vegetable, fruits, etc is called -

- a. Balanced diet
- b. The poor man's balanced diet
- c. Complete food
- d. Complete balanced diet

27. A disease that contaminate through water and food -

- a. Typhoid
- b. Influenza
- c. Leprosy
- d. AIDS

28. Which among the following is not a computer part -

- a. Input unit
- b. Memory unit
- c. Command unit
- d. output unit

29. A chemical formed from sodium, boron and oxygen -

- a. Aluminium bromide
- b. Mercuric chloride
- c. Phosphorous pentoxide
- d. Borax

30. The method of diverging heat without any media -

- a. Radiation
- b. Convection
- c. Conduction
- d. Transference

31. When light rays parallel to the principal axis falls on a convex mirror, the reflected ray -

- a. Converge
- b. Diverge
- c. Spread
- d. Come parallel

32. The least distance of the reflecting surface for an echo heard in air is -

- a. 17 metres
- b. 340 metres
- c. 34 metres
- d. 71 metres

33. The Indian Satellite that helps weather forecast -

- a. Insat
- b. Sros
- c. I.R.S
- d. Apple

34. The transfer of the pollen grains from the anther to the stigma is -

- a. Germination
- b. Fertilization
- c. Pollination
- d. Reproduction

35. The image of a plane mirror is -

- a. Unreal
- b. Real
- c. Smaller than object
- d. Inverted

36. During severe winter, the water distributing pipes break. The reason is -

- a. The pipe contracts when cools
- b. The freezing of water will cause an expansion in volume
- c. Use of low quality of pipes
- d. In winter the water flows through the pipe has high pressure

37. 100 gms of water heated to raise its temperature from 40°C to 50°C . Find out the heat gained by water.

- a. $4.2 \times 100 \times 10 \text{ J}$
 - b. $4.2 \times 100 \times 40 \text{ J}$
 - c. $4.2 \times 100 \times 50 \text{ J}$
 - d. $4.2 \times 100 \times 10 \text{ J}$
37. In your well mosquito larvae are found. What measures will you adopt to destroy them?
- a. Pouring kerosene oil
 - b. Growing some live fresh water fish.
 - c. Spraying DDT
 - d. Putting some potassium permanganate
39. Which is wrong in the following -
- a. Drink pure water
 - b. Eat clean food
 - c. Breathe fresh oxygen
 - d. Keep our body clean
40. Why do mountaineers carry air with them?
- a) The air at higher level is polluted
 - b) The air at higher level has more density
 - c) As the air becomes thinner at higher level it is difficult to breathe
 - d) At higher level the pressure of the air increases and hence difficult to breath.
41. Cholesterol is seen in some people. Which food component do they consume?
- a. Plant producing food
 - b. Consume plants and animal origin food equally
 - c. Consume food of animal origin in excess quantity
 - d. Consume more plant food and less animal origin food
42. Which pump is used to lift water from a pond to a tank 12 metres in heights?
- a. Vacuum pump
 - b. Force pump
 - c. Lift pump
 - d. Compression pump

43. A substance through which transference of heat conducted?

- a. Water
- b. Air
- c. Wood
- d. Aluminium

44. Which of the plants are for beverages?

- a. Coconut, ground nut, sun flower
- b. Teak, rosewood, Anjili
- c. Pepper, Ginger, Turmeric
- d. Coffee, Tea, Cocoa

45. A disease caused by fungus in coconut tree.

- a. Bunchy top
- b. Mosaic disease
- c. Bud root
- d. Iron disease.

46. The advantage of dissolving oxygen in water -

- a. Water as a good solvent
- b. It helps to live terrestrial animals in water
- c. It gives good taste to water
- d. It helps aquatic animals to retain their life.

47. When constructing buildings the basement is made wider than walls because—

- a. It is suitable for construction
- b. It helps to reduce the pressure that the building exerts on the ground
- c. To prevent the shaking of the house by wind
- d. To give strength to the wall.

48. Which of the following is not among the management of plants -

- a. Ploughing
 - b. Collecting leaves, flowers, roots etc
 - c. Planting in rows
 - d. Leveling the field
49. Take a solid substance in a boiling tube. Heat gently on the flame. It turns brown first, later it begins to char, that is it looks blackish and found small droplets of water inside the tube which is the solid?
- a. Salt
 - b. Sugar
 - c. Sulphur
 - d. Iron dust
50. A fish in an aquarium often comes on the surface of water –
- a. To see visitors
 - b. It comes up simply while swimming
 - c. The amount of oxygen dissolved in water reduced
 - d. To breathe atmospheric air.

University of Calicut

Achievement Test in Mathematics for Std VII

മാ: മാർക്ക് 50

സമയം 45 മിനിറ്റ്

നിർദ്ദേശങ്ങൾ:

- 1) ഓരോ ചോദ്യത്തിനും A B C D എന്നീ അക്ഷരങ്ങൾ ഇട്ട് 4 ഉത്തരം കൊടുത്തിരിക്കുന്നു. അവയിൽ ഒന്നുമാത്രമാണ് ശരി
 - 2) തന്നിരിക്കുന്ന ഉത്തരരേഖകളിലൊന്നിൽ ഓരോ ചോദ്യനമ്പരിനും എതിരെ A B C D എന്ന് മുകളിൽ രേഖപ്പെടുത്തിയ നാലു കള്ളികൾ കൊടുത്തിട്ടുണ്ട്.
 - 3) ശരിയായ ഉത്തരം കണ്ടുപിടിച്ചു അക്ഷരത്തിനു താഴെയുള്ള കള്ളിയിൽ 'x' അടയാളം ഇടുക. ഒരു ചോദ്യത്തിന് ഒരുമാർക്ക് വീതം.
- 1) ഒരു ഹോസ്റ്റലിലെ കുട്ടികളിൽ $33\frac{1}{3}\%$ സസ്യഭുക്കുകളായാൽ മാംസഭുക്കുകളുടെ ശതമാനം —
 a) $66\frac{1}{3}$, b) $66\frac{2}{3}$, c) $67\frac{1}{3}$, d) $67\frac{2}{3}$
 - 2) ഒരു സംഖ്യ 10% വർദ്ധിച്ചപ്പോൾ 11 ആയി. എന്നാൽ സംഖ്യ ഏതു?
 a) 110ന്റെ 10%, b) 11ന്റെ 10%, c) 100ന്റെ 10%,
 d) 10ന്റെ 11%
 - 3) റിബേറ്റ് കണക്കാക്കുന്നത്?
 a) യഥാർത്ഥവിലയിൽ, b) പരസ്യവിലയിൽ,
 c) വീറ്റവിലയിൽ d) വാങ്ങിയവിലയിൽ
 - 4) ഒരു ഡസൻ നോട്ട്ബുക്കിന്റെ വില 98 രൂപയാണ്. ഡസൻ കണക്കിന് വാങ്ങുമ്പോൾ 7 രൂപാ ഡിസ്കൗണ്ടും ഒരു ബുക്ക് സൗജന്യമായും ലഭിക്കുന്നതാണ്. എന്നാൽ ഒരു ബുബിന്റെ യഥാർത്ഥ വില?
 a) $7\frac{1}{2}$ രൂ, b) 7 രൂ, c) 8 രൂ, d) $8\frac{1}{2}$ രൂ

- 5) ഏറ്റവും വലിയ നെഗറ്റീവ് പൂർണ്ണസംഖ്യ
 a) -9, b) -1, c) 0, d) പറയാൻ സാധ്യമല്ല
- 6) അനുകൂലമായ രണ്ടു റേസംഖ്യകളുടെ വ്യത്യാസം
 a) 3, b) 0, c) 2, d) 1
- 7) സംഖ്യരേഖയിൽ -3ന്റെ 6 യൂണിറ്റ് വലതുവശത്തുവരുന്ന സംഖ്യ
 a) $+3$, b) 0, c) -6, d) 9
- 8) രണ്ടു സംഖ്യകളുടെ തുക - ആയാൽ അവ പരസ്പരം സങ്കലന വിപരീതങ്ങളായിരിക്കും.
 a) 1, b) -1, c) 0, d) പോസിറ്റീവ്
- 9) ഒരു രേഖാഖണ്ഡത്തിന് ഒരു - മാത്രമെ വരക്കാൻ സാധിക്കുകയുള്ളൂ
 a) സമഭജി, b) മധ്യലംബം, c) ലംബം, d) രേഖ
- 10) C കേന്ദ്രമായ ഒരു വൃത്തത്തിലെ ഒരു ബിന്ദുവാണ് P എങ്കിൽ CP വൃത്തത്തിന്റെ - ആണ്.
 a) വ്യാസം, b) ഞാൺ, c) ചരപം, d) ആരം
- 11) $\overline{PQ} = 10$ സെ.മീ. A അതിന്റെ മധ്യബിന്ദു ആയാൽ $\overline{QA} =$
 a) 5 cm, d) -5 cm, b) 10 cm, d) 15 cm
- 12) രണ്ടു സംഖ്യകളുടെ ഗുണനഫലം 1 ആയാൽ അവ പരസ്പരം - ആണ്.
 a) സങ്കലനവിപരീതം, b) ഗുണനവിപരീതം
 c) പോസിറ്റീവ് d) നെഗറ്റീവ്
- 13) xന്റെ ഗുണനഫലം
 a) x^2 , b) x^3 , c) x, d) -1

14) $a \times a^2 = a^3$ ആകട്ടെ 89 ലിനം
 a) a^3 , b) a^2 , c) a^4 , d) a

15) $(a^m b^2)^3 =$ -
 a) $a^3 m b^6$, b) $a^3 m b^2$, c) $a^3 m b^3$, d) $a^3 m b^6$

- 16) ഒന്നാംവർഷത്തെ കൂട്ടുപലിശയും സാധാരണപലിശയും —
ആയിരിക്കും.
- a) വ്യത്യസ്തം, b) തുല്യം, c) കൂട്ടുപലിശ സാധാരണ പലിശയേക്കാൾ കൂടുതൽ, d) സാധാരണ പലിശ കൂട്ടുപലിശയേക്കാൾ കൂടുതൽ
- 17) 100 രൂപയ്ക്ക് ഒരു വർഷത്തേക്ക് കിട്ടുന്ന പലിശയാണ് —
a) കൂട്ടുപലിശ, b) ശതമാനം, c) പലിശനിരക്ക്
d) ശതമാനനിരക്ക്
- 18) ഒരു മട്ടകോണിന്റെ അനുപുരകകോൺ
a) 90° , b) 45° , c) 18° , d) 360°
- 19) രണ്ടുജോടി എതിർകോണുകളുടെ തുക — ആയിരിക്കും.
a) 360° , b) 90° , c) 145° , d) തുല്യം
- 20) $\angle AOB$, $\angle POC$ ഇവ എതിർകോണുകളാണ്. $\angle AOB = 50^\circ$
ആയാൽ $\angle POC =$ —
a) 130° , b) 50° ഡിഗ്രി, c) 180° ഡിഗ്രി, d) 100° ഡിഗ്രി
- 21) $4a^2b^2c^2$ എന്നത് ഏതു വിഭാഗത്തിൽപ്പെടുന്നു
a) ഏകപദം, b) ദ്വിപദം, c) ത്രിപദം, d) മൂന്നിൽകൂടുതൽ പദങ്ങളുള്ള പോളിനോമിയൽ
- 22) ത്രികോണം ABCയിൽ $\angle A = 70^\circ$ ഡിഗ്രി, $\angle B = 61^\circ$ ഡിഗ്രി
ആയാൽ $\angle C$ എത്ര?
a) 50° ഡിഗ്രി, b) 90° ഡിഗ്രി, c) 100° ഡിഗ്രി, d) 130° ഡിഗ്രി
- 23) ഒരുജോഡി സമീപ വശങ്ങൾ തുല്യമായ ചതുർഭുജമാണ് —
a) റെക്റ്റം, b) സമഭുജസാമന്തിരികം, c) സമചതുരം
d) ചി.ബക.
- 24) $5 + 4 > 6$ എന്നത് — വാക്യമാണ്
a) സന്നിഗ്ദ്ധവാക്യം, b) ബീജഗണിതവാക്യം,
c) സത്യവാക്യം, d) അസത്യവാക്യം.

- 25) $(-3, 5)$ എന്ന ബിന്ദു ഏതു ചതുർത്ഥമാംശത്തിലാണ്
 a) 1-ാം ചതുർത്ഥമാംശം, b) 2-ാം ചതുർത്ഥമാംശം
 c) 3-ാം ചതുർത്ഥമാംശം, d) 4-ാം ചതുർത്ഥമാംശം
- 26) 12.5 എന്ന സംഖ്യ 10.7 ആയി കുറഞ്ഞാൽ കാവ് എത്ര ശതമാനം?
 a) 14.4%, b) 1.8%, c) 2.2%, d) 14%
- 27) ഒരുസരറി 5% ഡിസ്കൗണ്ട് അനുവദിച്ചു 760 രൂപയ്ക്ക് ചീൽക്കുന്ന എങ്കിൽ സരരിയുടെ പരസ്യവിഖ്യാതം?
 a) 1140 രൂപ, b) 800 രൂപ, c) 7600 രൂപ, d) 900 രൂപ.
- 28) വിദ്യാർത്ഥികൾക്കുള്ള യാത്രാനിരക്ക് 150% വർദ്ധിപ്പിച്ച ഇപ്പോൾ ഒരുടിക്കരറിന്റെ ചാർജ്ജ് 25 പൈസ ആയാൽ ആദ്യത്തെ ചാർജ്ജ്?
 a) 5, b) 10, c) 15, d) 20)
- 29) $+23 + 75 - 63 + 84 - 98$ നെ ലഘൂകരിക്കുമ്പോൾ കിട്ടുന്ന സംഖ്യ
 a) +21, b) -21, c) +343, d) -343
- 30) $-5n \times 4n$ എന്നിവയുടെ തുകയിൽനിന്നും $-12n + 7n$ എന്നിവയുടെ തുക കുറച്ചാൽ കിട്ടുന്നതും
 a) +28n, b) 28n, c) +4n, d) -4n
- 31) $\left(\frac{-25}{8}\right)$ കൊണ്ട് $\left(\frac{-2}{5}\right)$ നെ ഹരിച്ചാൽ കിട്ടുന്നതും
 a) $\frac{+16}{125}$, b) $\frac{-16}{125}$, c) $\frac{+125}{16}$, d) $\frac{-125}{16}$
- 32) ഒരു ചതുരത്തിന്റെ നീളം, വിതിയുടെ 3 മടങ്ങാണ്. വിതി

'a' ആയാൽ വിസ്തീർണ്ണം.

- a) $3a^3 \text{ cm}^2$, b) $3a^2 \text{ cm}^2$, c) $a^2 \text{ cm}^2$
- d) $\frac{a}{3} \text{ cm}^2$

- 33) $2a = 32$ ആയാൽ $a =$ —
- a) 2, b) 3, c) 6, d) 4

34) ഒരു കോണിന്റെ അളവ് അതിന്റെ അനുപുരകകോണിന്റെ അളവിന്റെ അഞ്ച് മടങ്ങ് ആകുന്നു. ഈ രണ്ടു കോണുകളുടെ അളവ്

- a) 40 ഡിഗ്രി, 140 ഡിഗ്രി, b) 140 ഡിഗ്രി 45 ഡിഗ്രി,
- c) 30 ഡിഗ്രി, 150 ഡിഗ്രി, d) 90 ഡിഗ്രി, 90 ഡിഗ്രി

35) $7p - 3q + r$ നെ $5q - 4p + 6r$ ൽ നിന്ന് കുറച്ചാൽ കിട്ടുന്നത്?

- a) $11p + 8q - 5r$, b) $-8q - 11p - 5r$
- c) $8q + 11q + 5r$, d) $8q - 11p + 5r$

36) താഴെപ്പറയുന്നവയിൽ പൂർണ്ണവർഗ്ഗം അല്ലാത്തത് ഏത്?

- a) 90000, b) 160000, c) 25000, d) 3600

37) 48 സെ. മീ. ചുറ്റളവുള്ള ഒരു ത്രികോണത്തിന്റെ വശങ്ങളുടെ അംശബന്ധം 7:8:9 ആയാൽ ത്രികോണത്തിന്റെ ഏറ്റവും വലിയ വശത്തിന്റെ നീളമെന്ത്?

- a) 16, b) 18, c) 24, d) 14

38) ബാർ ഡയഗ്രാമിനെ സ.ബന്ധിപ്പിച്ചിട്ടുള്ള ശരിയാക്കാത്ത പ്രസ്താവനയേത്?

a) രണ്ടുബാറുകൾക്ക് ഇടയിലുള്ള അകലം തുല്യമായിരിക്കണം.

b) തന്നിരിക്കുന്ന പട്ടികയിലെ ഓരോയിനത്തിനും സമാനമായി ഒരു ബാർ ഉണ്ടായിരിക്കണം.

c) ഓരോ ബാറിന്റേയും ഉയരം അതു സൂചിപ്പിക്കുന്ന വസ്തുവിന്റെ വലിപ്പത്തിനോ എണ്ണത്തിനോ അനുപാതമായിരിക്കും.

d) എല്ലാ ബാറിനും വ്യത്യസ്ത വീതി ഉണ്ടായിരിക്കണം.

39) $\sqrt{361} = 19$ ആയാൽ $\sqrt{0.00000361} =$ -

a) 0.0019, b) 0.00019, c) 0.19, d) 0.019

40) 120 രൂപയ്ക്ക് പ്രതിവർഷം 5% പലിശനിരക്കിൽ 10 മാസത്തെ പലിശ എന്ത്?

a) 10 രൂ. b) 12 രൂ. c) 15 രൂ. d) 5 രൂ.

41) 9900 രൂപവീതം 2 പശുക്കളെ വിറ്റപ്പോൾ ഒന്നിൽ 10% ലാഭം ലും, മറ്റേതിൽ 10% നഷ്ടവും സംഭവിച്ചു. രണ്ടു കച്ചവടവും നടന്നപ്പോഴുള്ള ലാഭമോ നഷ്ടമോ എത്ര ശതമാനം?

a) 10%ലാഭം, b) 10%നഷ്ടം, c) 1%ലാഭം, d) 1%നഷ്ടം

DEPARTMENT OF ADULT EDUCATION AND EXTENSION SERVICES
UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN MATHEMATICS FOR STANDARD VII
(English version)

Time: 1¼ mts.

Mark: 50

INSTRUCTIONS

1. In each question, answers are given in A, B, C, D. Choose the correct one.
 2. In the answer sheet, answers are given in A, B, C and D. Draw a circle around the correct alphabet.
 3. Each questions carries one mark.
-
1. In a hostel $33\frac{1}{3}\%$ of students are vegetarians. Then percentage of non-vegetarian is ——
A. $66\frac{1}{3}\%$ B. $66\frac{2}{3}\%$ C. $67\frac{1}{3}\%$ D. $67\frac{2}{3}\%$
 2. If a number increased 10% gives 11, then the number is ----
A. 10% of 110 B. 10% of 11, C. 10% of 100 D. 11% of 10
 3. Rebate is calculated on ----
A. Original price B. Marked price C. Selling price D. Cost price
 4. Cost of a dozen book is Rs.98. There is a discount of Rs.7 and also a free book for a dozen book. Then original price of a book is ——
A. Rs. $7\frac{1}{2}$ B. Rs.7 C. Rs.8 D. Rs. $8\frac{1}{2}$
 5. Which is the largest negative integer
A. -9 B. -1 C. 0 D. undefined

6. The difference of two consecutive number is ---
 A. 3 B. 0 C. 2 D. 1
7. On a number line the number 6 units to the right of -3.
 A. +3 B. 0 C. -6 D. 9
8. If the sum of two numbers is ---, each number is additive inverse of the other
 A. 1 B. -1 C. 0 D. +
9. Only one --- can be drawn to a line signal
 A. Bysector B. Perpendicular by sector C. Perpendicular D. line
10. P is a point on a circle with centre C, then CP is ---of the circle
 A. Diametre B. Chord C. Arc D. Radius
11. If PQ equal to 10 cm and A is the mid point of it, then SQ = ---
 A. 5 cm B. -5 cm C. 10 cm D. 15 cm
12. If the product of 2 numbers is 1, then each will be ---
 A. additive inverse. B. multiplicative inverse C. positive D. negative
13. Coefficient of X is ---
 A. 1 B. 0 C. X D. -1
14. $a \times x^0 =$ ---
 A. a^0 B. 1 C. a^2 D. a
15. $(a^m b^2)^3 =$ ---
 A. $a^3 mb^5$ B. $a^3 mb^2$ C. $a^3 mb^3$ D. $a^3 mb^6$

16. The compound interest and simple interest of first year are -

- A. Different B. Equal C. C.I greater than S.I.
E. S.I greater than C.I

17. Interest for Rs.100 for 1 year is ---

- A. Compound interest B. Percentage
C. Rate of interest D. Percentage rate

18. Supplementary angle of a Right angle is ----

- A. 90° B. 45° C. 18° D. 360°

19. Sum of the two pair of vertical angle will be ---

- A. 360 B. 90 C. 145 D. Equal

20. $\angle AOB = 50^\circ$ $\angle POC =$ ----

- A. 130° B. 50° C. 180° D. 100°

21. $4a^2 b^2 c^2$ is a ----

- A. Monomeal B. Binomeal C. Trynomeal D. Polynomeal

22. In $\triangle ABC$ $\angle A = 70^\circ$, $\angle B = 61^\circ$, then $\angle C =$ ---

- A. 50° B. 49° C. 100° D. 130°

23. A quadrilateral with one pair of adjacent side not equal ---

- A. Kite B. Rhombus C. Square D. Trapezium

24. $5+4 > 6$ is a --- sentence

- A. Open sentence B. Algebraic sentence C. True sentence
E. False sentence

25. $(-3, 5)$ is a point in — quadrant

- A. first quadrant B. 2 quadrant C. 3 quadrant D. 4 quadrant

26. The number 12.5 decreased into 10.7 then percentage of decrease is —

- A. 14.4% B. 1.8% C. 2.2% D. 14%

27. A sari sells at Rs.760 on a discount of 5% then marked price is —

- A. Rs. 1140 B. Rs.800 C. Rs.7600 D. Rs.900

28. The travelling fare of students increased to 150%. If the present change of one ticket is 25 paise then the former travelling fare is —

- A. 5 paise B. 10 paise C. 15 paise D. 20 paise

29. Simplified form of $+23 + +75 - +63 + +94 - + 98$ is —

- A. +21 B. -21 C. + 344 D. -343

30. If the sum of $-12n$ and $+7n$ is subtracted from the sum of $-5n$ and $+4n$ is

- A. $+28n$ B. $28n$ C. $+4n$ D. -4

31. $(-2/5) \div (-25/28) = \text{————}$

- A. $16/125$ B. $-16/125$ C. $+125/16$ d. $-125/16$

32. The length of a square is 3 times that of its breadth. If the breadth is 'a' then length is——

- A. $3a$ B. $3a^2 \text{ cm}^2$ C. $a^2 \text{ cm}^2$ D. $a/3 \text{ cm}^2$

33. If $2a^2 = 32$ then $a = \text{————}$

- A. 2 B. 3 C. 6 D. 4

34. The measure of an angle is 5 times the measure of its supplementary angle. Then the measure of each angle is ----
- A. $40^\circ, 140^\circ$ B. $140^\circ, 45^\circ$ C. $30^\circ, 150^\circ$ D. $90^\circ, 90^\circ$
35. If $7p - 3q + r$ is subtracting from $5q - 4p + 6$ is ----
- A. $11p + 8q - 5r$ B. $-8q - 11p - 5r$ C. $9q + 11q + 5r$
E. $8q - 11p + 5r$
36. Which of the following is not a perfect square?
- A. 9000 B. 160000 C. 25000 D. 3600
37. If the ratio of sides of a triangle having a perimeter 48 cm is 7:8:9 then the measure of longest side is -
- A. 16 B. 18 C. 24 D. 14
38. Which is true statement about bar diagram
- A. Distance between 2 bar will be equal
B. There should be one bar equal to each item given in the table
C. The height of each bar will be proportional to the size and number of specified item
D. Each bar should have different breadth.
39. If $\sqrt{361} = 19$ then $\sqrt{0.00000361} = \text{-----}$
- A. 0.0019 B. 0.00019 C. 0.19 D. 0.019
40. What is the interest for Rs.120 for 10 months at 5% interest?
- A. Rs.10 B. 12 C. Rs.15 D. 5
41. When 2 cows were sold at an amount of Rs.9900 each, one gives 10% profit and other gives 10% loss. Then what is the profit percentage or loss percentage in this business
- A. 10% profit B. 10% loss C. 1% profit D. 1% loss

42. If -4 is divided by the product of $+16$ and -5 is ---
A. $+20$ B. -20 C. $-1/20$ D. $+1/20$
43. The volume of a square box is the product of length, breadth and height. The height of square box is twice its breadth and if the breadth is x cm, then the volume is---
A. $2x^3$ B. $6x^3$ C. $12x^2$ D. $6x^2$
44. The measure of 1 angle in a linear pair is $3\frac{1}{2}$ times that of the other. Then measure of each angle are---
A. $30^\circ 150^\circ$ B. $60^\circ 120^\circ$ C. $40^\circ 140^\circ$ D. $60^\circ 90^\circ$
45. What is to be subtracted from $3a - 2b + c$ to get $5a + b - 3c$
A. $2a + 3b - 4c$ B. $-2a + 3b + 4c$ C. $-2a - 3b + 4c$ D. $-2a - 3b - 4c$
46. 60 students of a class has to be arranged for a drill the number of students in a row is equal to total number of rows. If you make a maximum students to participate in the drill what will be the number of remaining students
A. 11 B. 4 C. 10 D. 12
47. The length and breadth of a rectangle are 48 cm and 27 cm respectively. What is the length of one side of square having equal area that of the rectangle
A. 36 B. 48 C. 27 D. 75
48. The sound travels a speed of 90 km per hour. The sound of the thunder was heard 7 second after the lightening was seen. So how far do the clouds that created the sound stand.
A. 630m B. 25m C. 175 D. 83 m

49. 10^7 gm = ---kg

- A. 10^7 kg B. 10^3 kg C. 10^4 kg D. 10 kg

50. A bus travels at a distance of 198 km for 4 hours then it travels 82 km for the next 3 hours. Calculate the average speed of Bus.

- A. 30 kph B. 40 kph C. 35 kph D. 45 kph.

UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN ENGLISH FOR STD VIII

SECTION- A

All questions are objective type. Each of the questions has four answers marked A, B, C, and D. Choose the correct answer and mark ('X') the letter that denotes it in the answer sheet, against the question number.

Mark-50

Time: 1 hr.

Pick out the correct word to fill up the blanks.

1. Every body liked him — Ravi. A accept B except C expect D none of these
2. Which word is wrongly spelt
A condem B condemn C contemn D content

Fill in correctly using one of the endings.

3. Atmosph..... A our B er C ear D ere

Replace the under lined phrase with a single word having the same meaning.

4. Mahatma Gandhj gave an account of his life in Africa, in his book, "The story of my experiments with truth"
A described B narrated C reported D none of these
5. In some countries, government has the sole right to supply tobacco
A Monopoly B power C patent D policy
6. one who makes statuis, idols, carving etc: is a-
A architect B sculpture C philosopher D carpenter
7. The phrase 'fishup' means A pull something out B catch fish
C put the fish in water D carry the fish
8. 'they compelled him to work'-the meaning is: A they made to him work
B they make for him work C they made him work D none of these

Fill in the blanks with a word opposite in meaning to the word underlined

9. Arun is a tall boy, but his brother is—
A brief B small C short D big
10. The first question is easy; but the others are—
A uneasy B difficult C strange D nice

11 which of the following is nouns

- A occupation B occupy C occupational D occure

choose the adjective forms

12 A india B Indian C Indians D None of these

13 Which of the following is not belonged in the group

- A Profession B job C sculpture D occupation

14 choose the word which is not suitable in the group

- A cupboard B shelf C buffet D safe

choose the correct answer

15 beauty + ful = —

- A beautiful B beautifull C beautifull D beautyfull

16 a shoal of — A sheep B wolves C policeman D fish

17 fatty food made from cream by churning

- A butter B ghee C whey D curd

18 symphony in yellow the figure of speech is:-

- A simile B metaphor C Irony D Epigram R

19 In one of the words the letter 't' is pronounced which is that word?

- A match B catch C detach D thatch

20 'bridal' is conneted with wedding but bridle is connected with:-

- A dog B elephant C horse D cat

select the best answers:

21 "I came, I saw, I conquered" these are the words of:

- A Sullivan B Grahambell C Julius caesar

22 william blacke's poem is:

- A rainbow B five eyes C night D palanquin beares.

23 The theme of the story 'Mary moons' is—

- A seiiious B mocking C humerous and witty D None of these

24 Cheeses from liver pool js taken from 'three men in a boat' by

- A Jerome K Jeromy C Nehru C Oscar wilde

25 Soapy danced, howled and raved, because

- A He wanted to get arrested B He was very happy C He was drunk
D None of these

- 26 Nightingale of India is:- A Florance nightingale C Hellen keller
C Sarojininaidu D None of these
- 27 Guilders means:
A a gang of hooligans B old Dutch and German gold coins
C excited activities D None of these.
- 28 "I know not what death is — it may be a good thing and I am not afraid of it" who said these words: A Words worth B Nehru C Socrates D Gandhiji
- 29 The combination step-ladders operates on:
A Cogs and wheels B a set of springs C levers D Fly-wheels
- 30 Compound adiective of "pills coated with sugars" *Sugar*
A coated pills of sugar B sugar pills C sugar-coated pills
D None of these.
- 31 "we must busy him to day at 12^o clock" who is burried here?
A Mr. Trigg B old dog C old pechicho D sheep dog

Complete each of the following with correct answers;

- 32 The train — before we reached the station.
A leave B left C had left D had been left
- 33 A busy doctor. has—time to spare.
A little B a little C the little D None of these
- 34 Do you mind—a little longer. A waiting B wait C waited D will wait
- 35 The past tense of must is—
A have to B had to C have been to D had been to
- 36 He said that the sun—in the east.
A rose B rises C has risen D None of these
- 37 —I use your telephone? A may B might C must D None of these
- 38 That book proved—very useful.
A myself B itself C themselves D None of these

Choose the correct alternative.

- 39 Open the door. The passive form is: A The door is opened.
B the door was opened C Let the door be opened D None of these
- 40 I have been living here—1985. A since B for C till D to
- 41 In which of the sentence the Infinitive is used as subject. A He likes to play cards
B she loves to dance C To err is human D None of these
- Choose the correct preposition.
- 42 Socrates did not believe that he was superior—all.
A than B to C on D in
- 43 I lost—pencil, I bought yesterday A the B an C a D None of these

Read the passage given below and answer the questions given at the end.

Fire is a magician. without fire we would still be living like the caveman. Early man knew nothing about fire until one day lightning from the sky set fire to a tree. Soon the whole forest was ablaze. As the fire died down, one man seized a burning branch and so started his own small fire. the primitive man used fire to get him warmth and to keep away the dangerous animals. there is an old saying that fire is "a good servant but a bad master". It is a good servant because it gives us light and heat and does many helpful things for us. But if we do not control it: fire becomes a dangerous enemy which destroys everything that it can touch. Many fires are caused by people being careless. Lightning too can cause fires. Children should never play with fire. They should not light crackers on special occasions.

Pick out the correct answer from those given below.

- 44 'the magician' refers to: a) Wind b) Fire c) God D) Clouds
- 45 Without fire we would still be living like.
a) monkeys b) animals c) cavemen d) children
- 46 What set fire to a tree one day?
a) forest b) lightning c) servant d) cold night
- 47 When the fire was set to a tree the whole forest was
a) wet b) dried c) cut down d) ablaze
- 48 Fire is a good servant because it a) gives us light and heat
b) - destroys the forest. c) burns everything d) lights crackers
- 49 More fires are caused by people being
a) care free b) careless c) helpful d) foolish
- 50 As the fire died down, one man seized a
a) dangerous animal b) burning branch c) cracker d) dangerous enemy

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ACHIEVEMENT TEST HINDI FOR STD VIII

- सूचिका:- 1 सब प्रश्नों का उत्तर लिखिए ।
2 हर एक प्रश्न का अंक एक एक ।

Time 50 Mt
Mark: 50

कोष्ठक से सही उत्तर चुनकर लिखिये:-

- तीन — तो रहे हैं । A बच्चा B बच्चे C बच्ची D बच्चियां
- पेड शब्द का बहुवचन रूप क्या है? A पेड B पेड़ों C पेड़ों D पेड़
- दशहरे के दिन गोपाल कहां जाना चाहता है? A ऊटी B मंसूर C चंकोट्टा D मंदूर
- सही रूप कौन-सा है? कमरा + में = _____
A कमरा में B कमरे में C कमरों में D कमरो में
- समुद्र पृथ्वी से कितना बड़ा मानता है?
A दुगुना B तिगुना C चौगुना D पंचगुना
- कौन-सा शब्द ठीक है?
A लाभदायक B लाभदायक C लाभदायक D लाफदायक
- 'नदी' शब्द का बहुवचन रूप कौन-सा है? A नदी B नदियों C नदिषा D नदियां
- अक्षयकुमार कौन था? A स्कूल में पढनेवाला B कॉलिज में पढनेवाला
C खेत में काम करनेवाला D आफीस में काम करनेवाला
- अक्षयकुमार कहां जा रहा था?
A रेलवेस्टेशन B स्कूल C कॉलिज D आफीस
- रेल की पटरी किस स्थिति में थी?
A उखड़ी हुई B टूटी हुई C पिघली हुई D दुबली हुई
- राष्ट्रपति ने अक्षयकुमार को कैसे सम्मानित किया?
A अशोक चक्र से B परमवीरचक्र से C पद्मभूषण से D पद्मविभूषण से
- रेखाकित शब्द के विलोम शब्द चुनकर लिखिए:- कहना आसान है । लेकिन करना — है ।
A आसानी B कठोर C मुश्किल D सरल
- राम का घर नया है । लेकिन मोहन का घर — है ।
A पुराना B पुरानी C नये D पुराने

- 14 कांटा किसका प्रतीक है ? A सुब का B दुख का ऐब का D अलसता का
- 15 'गुलाब' नामक कविता किसने लिखी ?
A मन्ननद्विवेदी गजपुरी B केदारनाथ C भैरवी प्रसादगुप्त D हनिंशराय बच्चन
- 16 गांधीजी का जन्म कहाँ हुआ ?
A दिल्ली में B पोरबन्दर में C गान्धीनगर में D आग्रा में
- 17 उनकी आदी — । A हुआ B हुए C हुई D हुईं
- 18 दीपावली किस महीने में मनाता है ?
A श्रावण B कार्तिक C आषाढ D फाल्गुन
- 19 दीपावली के दिन किसकी पूजा होती है ?
A लक्ष्मी की B सरस्वती की C दुर्गा की D पारवती की
- 20 दीपावली किस उच्च आदर्श का वाहक है ?
A तमसो मा ज्योतिर गमया
B उच्च नीच आदर्श का C वसुदेव कुडुम्बकम् आदर्श का D सादा जीवन और उच्च विचार का
- 21 काम प्यारा लगता है। कब ? A सुबह B दुपहर C शाम D रात
- 22 'सुबह' नामक कविता किसने लिखी ?
A भैरव प्रसाद गुप्त ने B श्रीपाद ने C प्रसादजी ने D मोहनलाल द्विवेदी ने
- 23 पुस्तक में किसकी आत्मा निवास करती है ?
A दर्शक की B लेखक की C मोता की D कवि की
- 24 'पुस्तक की सदैव इज्जत करनी चाहिए'—यह किसने कहा ?
A गांधीजी ने B विनोबाजी ने C नेहरुजी ने D इन्दिरागान्धी ने
- 25 कौन + को = — A. किसको B कौनको C किसीको D किनकी
- 26 शुद्ध रूप कौन-सा है A अद्यापक B अत्यापक C अथ्यापक D अध्यापक
- 27 कौन-सा वाक्य ठीक है ? A लीला पाठ लिखने लगी B लीला पाठ लिखनी लग ।
C लीला पाठ लिखना लगी D. लीला पाठ लिख लगी
- 28 वाक्य की पूती के लिए कौन-सा प्रत्यय उचित है ? मैं अपने मित्र — मित्रा
A मैं B को C से D ने
- 29 ब्रिटन ने फुटबॉल का खेल कहाँ से सीखा ?
A अमरीका से B भारत से C रोम से D रूस से
- 30 फुटबाल के खेल में किसको हाथ से गेंद पकड़ने का अधिकार है ?
A खिलाड़ियों को B गोलकीपर को C रेफरी को D प्रेपक को

31. 'दायी' शब्द का विलोम शब्द क्या है ? A दायें B बायें C बायीं D बादे
32. तुम गेंद खेलो। आप गेंद —। A खेलिए B खेल C खेलता D खेनेगा
33. पिताजी मिठाई —। A लाया B लाये C लायी D लायीं
34. तालाब — किनारे पेड़ है। A का B के C की D को
35. पिताजी कहीं से मिठाई लाये ? A दूकान से B स्कूल से C मन्दिर से D आफीस से
36. बच्चा दूध पीता है। ('बच्चा' के बदले 'बच्चे' का प्रयोग) A बच्चे दूध पीते हैं।
B बच्चे दूध पीती हैं। C बच्चे दूध पीता है D बच्चे दूध पीता हूँ।
37. "जो डाका डालता है"—इसका समानार्थक शब्द क्या है ?
A डाकू B डाकियां C कुम्हार D चमार
38. ताजमहल किस का प्रतीक है ? A प्रेम का B दुःख का C सुख का D शोक का
39. चाँदनी रात में ताजमहल के रंग-बिरंगे पत्थ किसके समान चमकते हैं ?
A बर्फ के समान B तारों के समान C सूरज के समान D रत्न के समान
40. "पच्ची करने का काम" — इसका समानार्थक शब्द क्या है ?
A कारीगरी B जादूगार C पच्चीकारी D यात्री
41. 'हिमालय' नामक कविता किसने लिखी है ?
A बच्चन जी ने B महादेवी वर्मा ने C सोहनलाल दिव्देदी ने D जयशंकर प्रसाद ने
42. सबसे सुन्दर = — A സൗന്ദര്യമില്ലാത്ത
B സുന്ദരമായ C ഏറ്റവും സുന്ദരമായ D അല്പം പോലും സൗന്ദര്യമില്ലാത്ത
43. ठाक ही कहा है = — A ശരി തന്നെ B തെറ്റാണ്
C ശരി തന്നെയാണ് പറഞ്ഞത് D തെറ്റാണ് പറഞ്ഞത്
44. अशोक ने किस राज्य पर हमला किया ?
A कलिंग B कपिलवस्तु C अयोध्या D भोपाल
45. तुम दूध पीओ। (तुम के बदले आप का प्रयोग)
A आप दूध पीओ। B आप दूध पीइए। C आप दूध पीजिए। D आप दूध पी।
46. "जो बीत गयी" — नामक कविता किसने लिखी ?
A पंतजी ने B प्रसाद जी ने C बच्चन जी ने D महादेवी वर्मा ने
47. पूर्ण भूतकाल कौन-सा है ?
A लडका आया था। B लडका आया है। C लडका आता है। D लडका आ रहा है।
48. 'फल' शब्द का बहुवचनरूप क्या है ? A फले B फला C फलें D फल
49. 'थोडा' शब्द क्या विलोम शब्द क्या है ? A कुछ B ज्यादा C बहुत D कम
50. मैं पढता —। A है। B हूँ। C हो। D थे।

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ACHIEVEMENT TEST IN BASIC SCIENCE FOR STD VIII

എല്ലാ ചോദ്യത്തിനും ഉത്തരം എഴുതണം. ഓരോന്നിനും 1 മാർക്ക് വീതം.

ഓരോ ചോദ്യത്തിനും A, B, C, D എന്നീ നാല് ഉത്തരം കൊടുത്തിട്ടുണ്ട്. ഇതോ ടൊപ്പം തരുന്ന ഉത്തരക്കടലാസിൽ ഉത്തരം രേഖപ്പെടുത്തണം. ശരിയായ ഉത്തരം സൂചിപ്പിക്കുന്ന ഷെക്കർത്തിൽ 'X' ചിഹ്നം ഇടേണ്ടതാണ്.

Time 50 Mt

Mark: 50

Part- A ഉൾജ്ജതരൂപം

- 1 ദ്രവ്യത്തിന്റെ 99 ശതമാനവും — അവസ്ഥയിലാണ്;

A ഓരം B പ്ലാസ്മ C വാതകം D ദ്രാവകം
- 2 വാച്ചിലെ സൂചിയുടെ ചലനം താഴെ പറയുന്നവയിൽ ഏതിന് ഉദാഹരണമാണ്

A സ്ഥാനാന്തരത്തിന് B ചക്രഗതിക്ക് C ദോലനത്തിന് D ഭ്രമണത്തിന്
- 3 ഭൂമിയിൽ അടിസ്ഥാന S. I യൂണിറ്റ്;

A Km B m³ C cm D mm
- 4 പർവ്വതാരോഹണം നടത്തുന്നവർക്ക് മുക്കിൽക്കൂടി രക്തസ്രാവമുണ്ടാകാൻ കാരണം;

A ചുറ്റുപാടിനു ഇലയുമായ ശരീരത്തിലെ മർദ്ദം

B ചുറ്റുപാടിനേക്കാൾ കൂടിയ ശരീരത്തിലെ മർദ്ദം

C ചുറ്റുപാടിനേക്കാൾ കുറഞ്ഞ ശരീരത്തിലെ മർദ്ദം

D ഇതൊന്നുമല്ല
- 5 തെർമോമീറ്ററിൽ രസം ദ്രാവകമായി ഉപയോഗിക്കുന്നതിനുള്ള കാരണങ്ങൾ താഴെ കൊടുക്കുന്നു. അതിൽ ഒന്ന് തെറ്റാണ്. തെറ്റായത് ഏത്?

A ജലത്തിന്റെ സാന്ദ്രതയുടെ 13.6 മടങ്ങാണ് രസത്തിന്റെ സാന്ദ്രത

B രസത്തിന്റെ വികാസ നിരക്ക് വളരെ ഉയർന്നതാണ്.

C രസം കണ്ണാടിക്കഴലിലൂടെ വ്യക്തമായി കാണാം.

D അത് കണ്ണാടിയിൽ പററിപ്പിടിക്കുകയോ, വേഗം ബാറ്റിപ്പിക്കുകയോ ചെയ്യുന്നില്ല.
- 6 ഒരു പദാർത്ഥത്തിന് സ്വീകരിക്കാവുന്ന ഏറ്റവും താഴ്ന്ന ഊഷ്മാവ്;

A 0°C B 0k C 273k D -273k
- 7 വസ്തുവിന്റെ അതേ വലുപ്പമുള്ള യഥാർത്ഥ പ്രതിബിംബം കിട്ടുന്നത് വസ്തു കോൺകേവ് ലെൻസിന്റെ —ൽ ആയിരിക്കുമ്പോഴാണ്.

A 2F B F C Fനും ലെൻസിനും ഇടയ്ക്ക് D Fനും Fനും ഇടയ്ക്ക്
- 8 കണ്ണിലെ ലെൻസിന്റെ — ക്രമീകരിക്കാനുള്ള കഴിവാണു് സമജ്ഞനക്ഷമത;

A വക്രത B ഫോക്കസ് ദൂരം C വലുപ്പം D ഇതൊന്നുമല്ല.
- 9 നിങ്ങൾ ഒരു കോൺകേവ് ദർപ്പണത്തിന്റെ മുന്നിൽ നിൽക്കുന്നു. പക്ഷെ നിങ്ങളുടെ പ്രതിബിംബം കിട്ടുന്നില്ല. അതിനാൽ നിങ്ങൾ നിൽക്കുന്നത്?

A ഒരു കോൺകേവ് ദർപ്പണത്തിന്റെ ഫോക്കസിലാണ്

B ഒരു കോൺകേവ് ദർപ്പണത്തിന്റെ Fനും Pനും ഇടയിലാണ്

C കോൺകേവ് ദർപ്പണത്തിന്റെ 2Fൽ ആണ്

D കോൺകേവ് ദർപ്പണത്തിന്റെ Fനും 2Fനും ഇടയ്ക്കാണ്

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- 10 താഴെ പറയുന്നവയിൽ കണ്ണിന്റെ ന്യൂനതയായി കരുതേണ്ടതില്ലാത്തത്?
 - A. മയോപ്പിയ B. പ്രെസ്ബയോപ്പിയ
 - C. ചെങ്കണ്ണ് D. ഹൈപ്പർ മെട്രോപ്പിയ
- 11 ഒരു കാന്തിക മണ്ഡലത്തിൽ സ്വതന്ത്രമായ ഒരു ഉത്തരധ്രുവം ചലിക്കുന്ന പാതയാണ്
 - A ഫ്ലൂക്സോട്രാ B ഫ്ലൂക്സോവേ C ഉത്തരധ്രുവം D ക്ഷീണധ്രുവം
- 12 താഴെ പറയുന്നവയിൽ കാന്തികവസ്തു അല്ലാത്തതേതു്?
 - A ഇരുമ്പ് B കോബാൾട്ട് C വജ്രം D നിക്കൽ
- 13 താഴെ പറയുന്നവയിൽ ഒരു കാന്തികത്തിന്റെ ഉറപ്പായ പരിശോധനയേതു്?
 - A ആകർഷണം B വികർഷണം C ദിശാസൂചി D ഇതൊന്നുമല്ല
- 14 സ്ഥിര വൈദ്യുത ചാർജ്ജ്—മൂലം ഉണ്ടാകുന്നു.
 - A ആകർഷണം B ഘർഷണം C വൈദ്യുതീകരണം D വികർഷണം
- 15 വൈദ്യുത ചാർജ്ജ് കടത്തിവിടാത്ത പദാർത്ഥങ്ങളാണ്—
 - A ചാലകങ്ങൾ B ഇൻസുലേറ്റർ C അർദ്ധചാലകങ്ങൾ D ഇതൊന്നുമല്ല
- 16 മിന്നലിൽ നിന്നുണ്ടാകുന്ന നാശങ്ങളിൽ നിന്ന് വൈദ്യുതോപകരണങ്ങളെ രക്ഷിക്കുന്നതിനുള്ള മാർഗ്ഗം — ആണ്.
 - A ശരിയായ എർത്തിംഗ് B മിന്നൽ രക്ഷാചാലകം
 - C വൈദ്യുതീകരണം D ഇതൊന്നുമല്ല.

Part B
കെമിസ്ട്രി

- 17 അസംസ്കൃത വസ്തുക്കളെ പുതിയതും ഉപയോഗപ്രദങ്ങളുമായ വസ്തുക്കളാക്കി മാറ്റുന്നതിനു സഹായിക്കുന്ന ശാസ്ത്രശാഖ;
 - A രസതന്ത്രം B ആരോഗ്യശാസ്ത്രം C ഊർജ്ജതന്ത്രം D ജീവശാസ്ത്രം
- 18 താഴെ പറയുന്നവയിൽ ഒരു രാസമാറ്റത്തിനുദാഹരണം;
 - A മെഴുകു ഉരുകുന്നത് B ജലം ചൂടാകുമ്പോൾ നീരാവിയായിക്കുറുകുന്നത്
 - C ഐസ് ചൂടാകുമ്പോൾ വെള്ളം ആകുന്നത് D വിറക് കത്തുന്നത്
- 19 ഒരു ശുദ്ധവസ്തുവിന് ഉദാഹരണം.
 - A വായു B ചെളി C തേൻ D പുക
- 20 അലൂമിനിയം + ——— → അലൂമിനിയം ഓക്സൈഡ്
 - A ഹൈഡ്രജൻ B ഓക്സിജൻ C നൈട്രജൻ D ഹീലിയം
- 21 ഒരു പദാർത്ഥത്തിന്റെ റിർമ്മിതികളെ അനുസ്മരണ യൂണിറ്റ്
 - A പ്രോസിട്ടോൺ B ഇലക്ട്രോൺ C ന്യൂട്രോൺ D തന്മാത്ര
- 22 ഒരു മൂലകത്തിന്റെ ആറ്റോമികസംഖ്യ 12 ആ മൂലകത്തിലുള്ള ഇലക്ട്രോണുകളുടെ എണ്ണം
 - A 46 B 24 C 12 D 11
- 23 സോഡിയം അയോണിന്റെ പ്രതീകം
 - + + -
 - A So B Na C Na D Na
- 24 അലൂമിനിയം അന്തരീക്ഷത്തിലെ ഓക്സിജനുമായി പ്രവർത്തിച്ച്— ഉണ്ടാകുന്നു
 - A അലൂമിനിയം സൾഫേറ്റ് B അലൂമിനിയം ഓക്സൈഡ്
 - C അലൂമിനിയം ഡൈ ഓക്സൈഡ് D ഇതൊന്നുമല്ല

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- 25 ഏറ്റവും ചെറിയ ആറ്റം.
 A ഹൈന്ദവൻ B ഓക്സിജൻ C കാർബൺ D യുറേനിയം.
- 26 ഓക്സിജന്റെ ആറ്റോമിക ഭാരം 16 ആണ്. ഒരു ഗ്രാം ആറ്റോമിക ഭാരം ഓക്സിജൻ എന്നാൽ?
 A 16 ഗ്രാം ഓക്സിജൻ B 8 ഗ്രാം ഓക്സിജൻ
 C ആറ്റങ്ങളുടെ എണ്ണം 16 D തന്മാത്രകൾ 8
- 27 കാന്തവൽക്കരിച്ച ഇരുമ്പുകമ്പി ചൂടാക്കുമ്പോൾ കാന്തമുണ്ട്.
 A കൂടുന്നു B കുറയുന്നു C ഇല്ലാതാകുന്നു D സ്ഥിരമായിരിക്കുന്നു.
- 28 ഒരു രാസപ്രവർത്തനം നടക്കണമെങ്കിൽ
 A ഊർജ്ജം അഗ്രിണം ചെയ്യപ്പെടുകയോ പുറംതള്ളപ്പെടുകയോ ചെയ്യണം.
 B അഭികാരകങ്ങളുടെ ഊർജ്ജം ഉൽപന്നങ്ങളുടെ ഊർജ്ജത്തേക്കാൾ കുറവായിരിക്കണം.
 C അഭികാരകങ്ങൾക്കും ഉൽപന്നങ്ങൾക്കും ഊർജ്ജം തുല്യമായിരിക്കണം.
 D ഊർജ്ജം സംഭവിക്കണമെന്നില്ല.
- 29 ഒരു സാധാരണ രാസപ്രവർത്തനത്തിൽ ഉപന്നങ്ങൾക്ക് അഭികാരകങ്ങളെ അപേക്ഷിച്ച് ഊർജ്ജം ലഭിക്കുകയോ ആയിരിക്കണം.
 A കൂടാതെ B കൂടുതൽ C തുല്യമായിരിക്കും D ഇതൊന്നുമല്ല
- 30 വെടിമരുന്നു കത്തുമ്പോൾ സഫോടനത്തോടുകൂടി നല്ല പ്രകാശവും കിട്ടുന്നത് അതിൽ — ഉപയോഗിക്കുന്നതുകൊണ്ടാണ്.
 A കോപ്പർ B അലൂമിനിയംപൊടി C കാർബൺ D മഗ്നീഷ്യം.
- 31 കാർബൺ ഡൈ ഓക്സൈഡ് ജലത്തിൽ ലയിപ്പിച്ചതാണ് സോഡാവാട്ടർ. അന്തരീക്ഷവായുവിൽ കാർബൺ ഡൈ ഓക്സൈഡുണ്ട്. എന്നാൽ മഴവെള്ളം സോഡാ ജലമാകുന്നില്ല. കാരണം?
 A വായു ഒരു സംയുക്തമാകയാൽ അതിന്റെ ഘടകമായ കാർബൺ ഡൈ ഓക്സൈഡിന് സ്വയം ചേർത്തിരിക്കാൻ ജലത്തിൽ ലയിക്കാനാവില്ല.
 B ഉന്നത മർദ്ദത്തിലെ കാർബൺ ഡൈ ഓക്സൈഡ് ജലത്തിൽ ലയിക്കുകയുള്ളൂ.
 C ശുദ്ധമായ മഴ വെള്ളത്തിന് കാർബൺ ഡൈ ഓക്സൈഡിനെ ലയിപ്പിക്കാൻ കഴിയില്ല.
 D വായുവിന്റെ ഇതര ഘടകങ്ങൾ കാർബൺ ഡൈ ഓക്സൈഡിനെ ജലത്തിൽ ലയിക്കുന്നതിൽ നിന്ന് തടയുന്നു.
- 32 ചുണ്ണാമ്പുകല്ലിനു കായാന്തരണം സംഭവിച്ച് — ആയി മാറുന്നു.
 A ക്വാട്ട്സ് B മാർബിൾ C സ്റ്റേറം D നയിസ്
- 33 ഫോസിലുകൾ കാണപ്പെടുന്നത് ഏതുതരം ശിലയിലാണ്?
 A അവസാദശിലയിൽ B ആഗേയശിലയിൽ C കായാന്തരീകശില
 D ഇതൊന്നുമല്ല

Part—C ബയോളജി

- 34 വനപ്രദേശങ്ങളിൽ കൂടുതൽ മഴപെയ്യാൻ കാരണം — ആണ്
 A ഊഷ്മാവിന്റെ കുറവ് B നീരാവിയുടെ കുറവ്
 C വന്യജീവികളുടെ വർദ്ധനവ് D ക്ലിന്നതയുടെ വർദ്ധനവ്
- 35 മൽസ്യങ്ങളിൽ പ്രവക്ഷമത ലഭിക്കുന്നതിന് — ഉണ്ട്.
 A ശകലങ്ങൾ B ചിറകുകൾ C വായുസഞ്ചി D ശൽക്കങ്ങൾ
- 36 കള്ളിച്ചെടിയുടെ മുളകൾ — രൂപാന്തരപ്പെടുത്താൻ
 A കാഞ്ചം B ഇലകൾ C കൃട്ടിക്കീട് D മുളകൾ

- 37 താഴെ പറയുന്നവയിൽ DNA യുമായി ബന്ധപ്പെട്ടതേത്?
 - A മർമ്മകരണിൽ
 - B മർമ്മദ്രവ്യത്തിൽ
 - C റൈബോസോമിൽ
 - D ക്രോമോസോമിൽ
- 38 RNA യിൽ — കാണപ്പെടുന്നില്ല.
 - A ഗ്യാനിൻ
 - B അഡനിൻ
 - C തൈമിൻ
 - D യൂറാസിൽ
- 39 പ്രത്യേകപാദന കോശത്തിൽ നടക്കുന്ന കോശവിഭജനമാണ് —
 - A ഊനഭംഗം
 - B ലഘുഭംഗം
 - C ക്രമഭംഗം
 - D വിഷമഭംഗം
- 40 ഉപചയത്തിനുദാഹരണമാണ് —
 - A ശ്വാസനം
 - B പ്രകാശസംശ്ലേഷണം
 - C ഊർജ്ജാൽപാദനം
 - D ഗ്ലൂക്കോസിന്റെ ഓക്സീകരണം
- 41 താഴെ പറയുന്നവയിൽ രോഗാണുക്കളെ നശിപ്പിക്കാൻ ആമാശയത്തെ സഹായിക്കുന്നത്:-
 - A റൈട്രിക് ആസിഡ്
 - B സരഫ്യൂറിക് ആസിഡ്
 - C ഹൈഡ്രോക്ലോറിക് ആസിഡ്
 - D ലാക്ടീക് ആസിഡ്
- 42 പിത്തരസത്തിന്റെ നിറത്തിനു കാരണം — ആണ്
 - A ഹീമോഗ്ലോബിൻ
 - B ബിലിറൂബിൻ
 - C മെലാനിൻ
 - D ഇന്ത്
- 43 — നെ ബാധിക്കുന്ന ഒരു രോഗമാണ് മഞ്ഞപ്പിത്തം.
 - A വൃക്ക
 - B കരൾ
 - C കണ്ണ്
 - D ത്വക്ക്
- 44 ബുക്ക് ലംഗ് സിലിളുടെ ശ്വാസിക്കുന്ന ജന്തുവാണ് —
 - A മൽസ്യം
 - B തവള
 - C എട്ടുകാലി
 - D പാറ
- 45 കോശത്തിൽ ഊർജ്ജം സംഭരിക്കുന്നത് — ൽ ആണ്
 - A DNA
 - B RNA
 - C ATP
 - D ഗ്ലൂക്കോസ്
- 46 സാർവ്വീകഭാതാവ് എന്നറിയപ്പെടുന്ന രക്തഗ്രൂപ്പ് — ആണ്
 - A O ഗ്രൂപ്പ്
 - B A ഗ്രൂപ്പ്
 - C AB ഗ്രൂപ്പ്
 - D +B ഗ്രൂപ്പ്
- 47 D ആൻറിജൻ ആദ്യമായി കണ്ടെത്തിയത് — ആണ്
 - A മറമ്പട്ടിയിൽ
 - B മുയലിൽ
 - C റീസസ് കരണ്ടിൽ
 - D എലിയിൽ
- 48 ഒരോ വലകീഴായി നിന്നുകൊണ്ട് ആഹാരം കഴിച്ചാലും അത് ആമാശയത്തിലെത്തുന്നു ഇതിനു കാരണം:
 - A ഗ്ലൈക്കോളിസിസ്
 - B ഫാഗോസൈറ്റോസിസ്
 - C പെരിസ്റ്റാൾസിസ്
 - D ഇന്തൊന്നുമല്ല.
- 49 താഴെ പറയുന്നവയിൽ ശ്വാസനരത്തിന്റെ മുഖ്യലക്ഷ്യം:-
 - A കാർബൺ ഡൈ ഓക്സൈഡിനെ പുറം തള്ളൽ
 - B ഓക്സിജനെ സ്വീകരിക്കുകയും CO_2 -നെ പുറം തള്ളുകയും ചെയ്യൽ
 - C അഹാരത്തിൽ നിന്നുള്ള ഊർജ്ജാല്പാദനം
 - D ഇവയൊന്നുമല്ല.
- 50 പാറക്കല്ലുകൾ ഉണ്ടാകുന്നത് മൂന്ന് ഘട്ടങ്ങളിലായിട്ടാണ് എന്ന് കരുതുന്നു?
 - A നിലിഫിക്കേഷൻ രോഗം വരാൻ സാധ്യത ഉള്ളതുകൊണ്ട്.
 - B പാറക്കല്ലിനെ അലർജിയായതുകൊണ്ട്.
 - C പാറക്കല്ലുകളിൽനിന്നും മുഖ്യകൃത്യം ഉണ്ടാക്കാതിരിക്കാൻ.
 - D ഇതൊന്നുമല്ല.

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DEPARTMENT OF ADULT EDUCATION AND EXTENSION SERVICES
UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN BASIC SCIENCE FOR STANDARD VIII
(English version)

Time: 50 mts.

Mark: 50

INSTRUCTIONS

1. In each questions, answers are given in A, B, C, D. Choose the correct one.
2. In the answer sheet, answers are given in A, B, C and D. Draw a circle around the correct alphabet.
3. Each questions carries one mark.

PART - A. PHYSICS

1. Over 99% of the matter in the universe exists in the ---- State
A. Solid B. Plasma C. Gas D. Liquid
2. Rotation of the hands of the watch is an example for :
A. translatory motion B. rotational motion
C. simple harmonic motion D. spin motion
3. S.I Unit of distance is
A. Km B. m^3 C. Cm D. mm
4. The reason for the nose bleeding of the of the mountaineers is -
A. Pressure of body is same as that of surroundings
B. Pressure of the body is greater than that of surroundings
C. Pressure of the body is lower than that of surroundings
D. None of these

5. The reasons for using mercury as thermometric liquid are given below. Among these one is wrong. What is that?
- A. Density of mercury is 13.6 times greater than that of water
 - B. Rate of expansion is greater for Hg.
4. C. We can see Hg through glass clearly
5. D. Hg. does not wet glass and rate of evaporation is less
6. The lowest temperature that can be achieved by substance
- A. 0°C
 - B. $^{\circ}\text{K}$
 - C. 273 K
 - D. -273 K
7. The size of the image is same as that of the object when the object is placed:
- A. $2F$
 - B. F
 - C. Between F and C
 - D. Between F and $2F$
8. The capacity to vary---of the eye lens is called accommodation
- A. Curvature
 - B. Focal length
 - C. Size
 - D. None of these
9. Suppose you are standing in front of a concave mirror. But you cannot see your image. So you are standing
- A. at the focus of the concave mirror
 - B. Between F and P of the concave mirror
 - C. At $2F$
 - D. Between F and $2F$
- 10.---can not be considered as a defect of the eye
- A. Myopia
 - B. Presbyopia
 - C. Sore eye
 - D. Hypermetropia
11. The path of an independent north pole in the magnetic field is --
- A. Flux density
 - B. Flux line
 - C. North pole
 - D. South pole
- 12.--- is a non magnetic substance
- A. Iron
 - B. Cobolt
 - C. Diamond
 - D. Nickel

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13. A standard test for Magnet is —

- A. attraction B. Repulsion C. Showing direction
E. Non of these

14. Static electricity is produced by -

- A. Attraction B. Friction C. electrification
E. Repulsion

15. Substances which do not allow electricity to pass through it is called -

- A. electric conduction B. Insulator
C. Semiconductor D. Non of these

16. Proper way for protecting electrical equipments from lightning is -

- A. Proper earthing B. Lightning conductor
b. Electrification D. Non of these

PART - B CHEMISTRY

17. The branch of science which helps us to convert unrefined substances or minerals into useful substances is---

- A. Chemistry B. Health Science C. Physics D. Biology

18. Which of the following is an example of chemical change?

- A. melting of wax. B. Formation of steam when water is heated.
C. Melting of ice. D. Burning of wood.

19. An example for pure substance is -

- A. Air B. mud C. Honey D. Smoke

20. Aluminium + $\text{O}_2 \longrightarrow$ Aluminium oxide.

- A. Hydrogen B. Oxygen C. Nitrogen D. Helium

21. Basic building unit of all substances are---

- A. Prositrons B. Electrons C. Neutrons D. Molecules

22. The atomic number of an element is 12. The number of electrons in that element is -----

- A. 46 B. 24 C. 12 D. 11

23. The symbol of sodium ion-

- A. 30^+ B. Na^+ C. Na^- D. Na

24. Aluminium reacts with oxygen in the air producing -----

- A. Aluminium sulphate B. Aluminium oxide
C. Aluminium dioxide D. None of these

25. The smallest atom

- A. Hydrogen B. Oxygen C. Carbon D. Uranium

26. The atomic weight of oxygen is 16. How much is one gram atom of oxygen.

- A. 16 gms of oxygen B. 8 gm of oxygen.
C. No. of atoms 16 D. molecules

27. When magnetized iron rod is heated its magnetic property -----

- A. Decrease B. Increase
C. Equal D. None of these

28. For a chemical reaction to take place

- A. Energy should be absorbed or released
B. Energy of the reactants should be less than the energy of the products
C. Energy of the reactants should be equal to the energy of the products
D. There need not be any energy change.

29. Ordinarily in a chemical reaction the total energy of the products should be— that of the reactants
- A. Less than B. Greater than C. Equal to D. None of these
30. For brightness and light during explosion— is added to gun powder.
- A. Copper B. Aluminium powder C. Carbon D. Magnesium
31. Soda water is CO_2 dissolved in H_2O . There is CO_2 in atmosphere. But rain water is not converted soda water. Why?
- A. CO_2 which is a constituent of air which is a compound can not separate from air and dissolves in H_2O
- B. CO_2 dissolves in H_2O only under high pressure.
- C. Pure rain water can not dissolve CO_2
- D. Other constituents of air prevents CO_2 from dissolving in H_2O
32. — is formed by the metamorphosis of lime stone
- A. Quartz B. Marble C. Slate D. No of these
33. Fossils are found in:
- A. Sedimentary rocks B. Indigenous rocks
- C. Metamorphic rocks D. None of these

PART - C BIOLOGY

34. High rainfall in forests is due to —
- A. Low temperature B. Low water vapour
- C. Increase in number of wild animals
- D. Non of these
35. In fishes buoyancy occurs by:
- A. Gills B. Fins C. Air sacs D. Scales
36. — is reduced as thorns in cactus.
- A. Stem B. Leaves C. Cuticle D. Buds

37. Which one of the following is related to DNA?

- A. Nucleous B. Nucleoplasm C. Ribosomes D. Chromosomes

38. In RNA - is not present

- A. Guanine B. Adenine C. Thiamine D. Uracil

39. The cell division that occurs in reproductive cells are

- A. Mitosis B. Meiosis C. Binary fission D. Compound fission

40. An example for metabolism is

- A. Respiration B. Photosynthesis C. Energy production
E. Oxidation of glucose

41. Which one of the following helps to destroy germs in stomach?

- A. Nitric acid B. Sulphuric acid C. Hydrochloric acid D. Lactic acid

42. Which one of the following gives colour to Bile?

- A. Haemoglobin B. Bilirubin C. Melanine D. Iron

43. Jaundice causes on:

- A. Kidney B. Liver C. Eye D. Skin]

44. The animal which respire through book lungs

- A. Fish B. Frog C. Spider D. Cockroach

45. In cells energy stores in

- A. DNA B. RNA C. ATP D. Glucose

46. Which blood group is referred as "Universal Donor"?

- A. 'O' Group B. 'A' Group C. 'AB' Group D. '+B' Group

47. 'D' Antigen first discovered in:

- A. Human beings B. Rabbits C. Rhesus monkey D. Rats

48. If a person eats food in the inverted position it will reach in the stomach itself. What is the reason for it?

- A. Glycolysis B. Phagocytosis C. Peristalsis D. None of these

49. The main aim of respiration is:

- A. Exhalation of carbon dioxide
B. Taking in of O_2 and giving out of CO_2
C. Energy release from food
D. None of these.

50. Persons handling rocks cover their nose with clothes why?

- A. There is chance to cause silicosis
B. Sand particles will cause allergy
C. That will cause damage to face
D. None of the above.

UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN MATHEMATICS FOR STD VIII

നിർദ്ദേശങ്ങൾ:—

1. ഓരോ ചോദ്യത്തിനും A, B, C, D എന്നീ അക്ഷരങ്ങൾ ഇട്ട് നാല് ഉത്തരം കൊടുക്കിരിക്കുന്നു. അവയിൽ ഒന്നുമാത്രമാണ് ശരി.
2. തന്നിരിക്കുന്ന ഉത്തരക്കടലാസിൽ ഓരോ ചോദ്യ നമ്പറിനും എതിരെ A, B, C, D എന്നു കൊടുത്തിട്ടുണ്ട്. ശരിയായ ഉത്തരത്തിന്റെ അക്ഷരത്തിനുചുറ്റും ഒരു വട്ടം ഇടുക.
3. ഓരോന്നിനും ഒരു മാർക്കുവീതം.

Time: 1½ hrs
Mark: 50

1. ഒരു ഗണത്തിലെ അംഗങ്ങളുടെ എണ്ണം 3 ആയാൽ ഉപഗണങ്ങളുടെ എണ്ണം:

A 3 B 4 C 6 D 8
2. A, B ഇവ വിചിത്ര ഗണങ്ങളാണെന്ന് $n(A) = 3$, $n(B) = 2$ ആയാൽ $n(A \cup B) =$ —

A 2 B 3 C 6 D 5
3. ഏതൊരു ഗണത്തിന്റെയും ഉപഗണമാണ്.

A 0 B \emptyset C $\{\phi\}$ D 1
4. $U = \{1, 2, 3, 4, 5\}$, $A = \{2, 3, 5\}$ ആയാൽ A യുടെ പൂരകഗണം.

A $\{1, 2, 3, 4, 5\}$ B $\{2, 3, 5\}$ C $\{1, 4\}$ D $\{\}$
5. $A \subset B$, $B \subset A$ എങ്കിൽ A, B എന്നീ ഗണങ്ങളെ—എന്നു പറയുന്നു.

A സമന്വൃഗണം B അനന്വൃഗണം C ശൂന്യഗണം D ഏകാംഗഗണം.
6. ചിത്രങ്ങളുടെ സഹായത്താൽ ഗണത്തെ അവതരിപ്പിച്ച ശാസ്ത്രജ്ഞനാണ്—.

A ജോൺവെൽ B പൈതാഗോറസ് C ട്യൂക്ലിഡ് D ആക്സൈമിസ്
7. നിക്ഷേപകൻ കൈവശം വെണ്ണുകയും ബാങ്കിലെ അക്കൗണ്ടു സൂക്ഷിക്കുകയും ചെയ്യുന്ന ബുക്കിന്റെ പേര്:—

A ചെക്ക് B പാസ്ബുക്ക്
C ഡിമാൻഡ് ഡ്രാഫ്റ്റ് D മെയിൽ ട്രാൻസ്ഫർ.
8. ഓഹരികളുടെ ക്രയവിക്രയത്തിനു സഹായിക്കുന്നു സ്ഥാപനമാണ്.

A സഹകരണബാങ്ക് B സ്റ്റോക്ക് എക്ചേഞ്ച്
C എംപ്ലോയ്മെന്റ് എക്ചേഞ്ച് D ജോയിന്റ് സ്റ്റോക്ക് കമ്പനി
9. ഒരു ഓഹരിക്കു വീതിച്ചു കൊടുക്കുന്ന കമ്പനിയുടെ ലാഭത്തിനെ—എന്നു പറയുന്നു.

A ഡിവിഡൻഡ് B പ്രിഫറൻസ് ഓഹരി C കടപ്പത്രം D മൂലധനം
10. $30:40 = a:20$ ആയാൽ $a =$ —

A 30 B 25 C 40 D 15

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- 11 മണിക്കൂറിൽ 40 കി. മീ. വേഗതയിൽ ഓടുന്ന ബസ്സ് 600 കി. മീ. ഓടുന്നതിനു എടുക്കുന്ന സമയം. A 10 B 15 C 20 D 25
- 12 40 ആളുകൾ 15 ദിവസംകൊണ്ട് തീർക്കുന്ന ജോലി 30 ആളുകൾ — ദിവസംകൊണ്ട് തീർക്കും. A 15 B 20 C 30 D 40
- 13 ഒരു കോണിന്റെ വില a രൂപയിൽനിന്നും b രൂപയായി മാറിയാൽ മാറ്റത്തിന്റെ അംശ ബന്ധം. — A $a:b$ B $b:a$ C $a+b:b$ D $a+b:b$
- 14 ഒരു ചതുർഭുജം തീർച്ചപ്പെടുത്തുന്നതിന് — അളവുകൾ ആവശ്യമാണ്. A 2 B 3 C 4 D 5
- 15 ഒരു സമചതുരത്തിന്റെ ഒരു വികർണ്ണത്തിന്റെ നീളം 8 സെ. മീ. ആയാൽ രണ്ടാമത്തെ വികർണ്ണത്തിന്റെ നീളം. — A 4 B 8 C 16 D 32
- 16 ജ്യോതിഷിയുടെ പിതാവ് എന്നറിയപ്പെടുന്ന ഗണിത ശാസ്ത്രജ്ഞൻ: A ആര്യഭടൻ B ഭാസ്കരൻ C ജ്യോതിഷി D പൈതാഗോറസ്
- 17 ഒരു ത്രികോണത്തിലെ കോണുകളുടെ അംശബന്ധം 1:2:3 ആയാൽ ഏറ്റവും ചെറിയ കോണിന്റെ അളവ് A 30° B 60° C 90° D 20°
- 18 ΔABC യിൽ $AB=BC=AC$ ആയാൽ $\angle B =$ — A 30° B 60° C 45° D 90°
- 19 സാമാന്തരികം ABCDയിൽ $AB=6$ സെ. മീ. ആയാൽ $CD =$ — സെ. മീ. A 6 B 12 C 4 D 5
- 20 ഒരു അർദ്ധവൃത്തത്തിലെ കോണിന്റെ അളവ് — A 45° B 90° C 180° D 360°
- 21 ΔDEF ൽ $\angle D = 80^\circ$, $\angle E = 60^\circ$ ഏറ്റവും നീളം കൂടിയ വശം. — A DE B EF C FD
- 22 ത്രികോണം എ ബി സി യുടെ ഒരു ബാഹ്യ കോണാണ് $\angle ACD$ $\angle A=50^\circ$, $\angle B=55^\circ$, $\angle ACD =$ — A 50° B 55° C 105° D 90°
- 23 ഒരു സമളതൃകോണത്തിന്റെ ഒരു വശം 10 സെ. മീ. ആയാൽ അതിന്റെ ചുറ്റളവ് — A 10 B 20 C 30 D 40
- 24 ഒരു മട്ടത്രികോണത്തിന്റെ ഏറ്റവും നീളം കൂടിയ വശം — A 103 B 105 C 107
- 25 $5 + 7x^2 + 3x$ എന്ന പോളിനോമിയൽ — ആണ് A ഏകപദം B ദ്വിപദം C ത്രിപദം

- 26 $(a+3) \cdot (a-3) = \text{---}$
 A $a^2 - 9$ B $a^2 + 6a + 9$ C $a^2 - 6a + 9$ D $a^2 + 6a - 9$
- 27 $-3 [4a-5b] = \text{---}$
 A $12a-5b$ B $12a-15b$ C $-12a+15b$ D $-12a-15b$
- 28 ചരത്തിന്റെ മണ്ഡലവും സത്യഗണവും അനന്യഗണമായി വരുന്ന ബീജഗണിതവാക്യം.
 A സന്ദിഗ്ദ്ധവാക്യം B സദാസത്യവാക്യം C സമവാക്യം
- 29 $(x-3)^2 = x^2 \text{---} + 9$ A $-6x$ B $+6x$ C $-3x$ D $+3x$
- 30 ഒരു സമചതുരത്തിന്റെ ഒരു വശത്തിന്റെ നീളം $(3x + 4y)$ യൂണിറ്റായാൽ വിസ്തീർണ്ണം
 --- A $2(3x+4y)$ B $3x+4y$ C $(3x+4y)^2$
 D $\frac{(3x+4y)}{2}$
- 31 $12x + 18y$ യുടെ ഘടകരൂപം ---
 A $12(x+y)$ B $6(x+y)$ C $6(2x+3y)$ D $6(x+2y)$
- 32 ഒരു സംഖ്യയുടെ 2 മട്ടങ്ങിനേക്കാൾ 4 കറവായ സംഖ്യ എന്നതിന് സമാനമായ ബീജഗണിതവാചകം.
 A $2x+4$ B $2x-4$ C $4x+2$ D $4x-2$
- 33 $x-6 = 6$ ആയാൽ $x = \text{---}$ A 12 B 0 C 36 D 1
- 34 ഒരു സംഖ്യയുടെ $\frac{1}{4}$ ഭാഗം 17 ആയാൽ സംഖ്യ = ---
 A 68 B 60 C 78 D 70
- 35 $36m^2 - 60mn + k$ ഒരു പൂർണ്ണവർഗ്ഗമായാൽ k യുടെ വില.
 A $5n^2$ B $25n^2$ C $25n$ D $5n$
- 36 7 അക്കങ്ങളുള്ള ഒരു സംഖ്യയുടെ വസ്തുലകരത്തിലെ അക്കങ്ങളുടെ എണ്ണം ---
 A 2 B 3 C 4 D 5
- 37 ഒരു കരണിക്ക് ഉദാഹരണമാണ് ---
 A $\sqrt{30}$ B $\sqrt{400}$ C $\sqrt{200}$ D $\sqrt{100}$
- 38 2.25 ന്റെ വസ്തുലം --- A 15 B 1.5 C .15 D .015
- 39 49 കട്ടികളെ എത്ര ബഞ്ചുകളിലിരുത്തിയാൽ ആകെ ബഞ്ചുകളുടെ എണ്ണം ഓരോ ബഞ്ചിലെ കട്ടികളുടെ എണ്ണവും തുല്യമാകും. A 4 B 7 C 9 D 11
- 40 ഒരു ത്രികോണത്തിന്റെ ഒരു വശത്തിന്റെ നീളം 7.5 സെ. മീ. ആ വശത്തേക്കുള്ള ഉന്നതി 8 സെ. മീ. എന്നാൽ വിസ്തീർണ്ണം --- cm^2
 A 60 B 30 C 7.5 D 8
- 41 a സെ. മീ. നീളമുള്ള സമപ്പര്യങ്കത്തിന്റെ വിസ്തീർണ്ണം ---
 A $\frac{\sqrt{3}}{4} a^2$ B $6 \frac{\sqrt{3}}{4} a^2$ C $\sqrt{2} a^2$ D $\frac{6a^2}{4\sqrt{3}}$
- 42 ഒരു തോട്ടത്തിന്റെ ആകൃതി സാമാന്തരികമാണ്. അതിന്റെ ഒരു വശത്തിന് 14 മീറ്റർ നീളമുണ്ട്. ആ വശത്തേക്കുള്ള ഉന്നതി 9 മീറ്റർ. എന്നാൽ വിസ്തീർണ്ണം --- ച. സെ. മീ.
 A 23 B 126 C 63 D 149

- 43 ഒരു ലംബകത്തിന്റെ സമാന്തര വശങ്ങൾ 'a' യൂണിറ്റും 'b' യൂണിറ്റും. അവ തമ്മിലുള്ള അകലം 'h' യൂണിറ്റും ആയാൽ വിസ്തീർണ്ണം ———
A $\frac{1}{2}h(a+b)$ B $2h(a+b)$ C $\frac{1}{2}hab$ D $2hab$
- 44 ഒരു വൃത്തത്തിലെ ഏറ്റവും നീളം കൂടിയ ഞാൺ ———
A ആരരേഖാഖണ്ഡം B വ്യാസരേഖാഖണ്ഡം C ചരിയി
- 45 'r' ആരമുള്ള ഒരു വൃത്തത്തിന്റെ വിസ്തീർണ്ണം ———
A $2\pi r^2$ B πr^2 C $2\pi r$ D πr
- 46 $x+3 = 8$ എന്ന സമവാക്യത്തിന്റെ മൂല്യഗണം.
A 5 B 11 C 3 D 8
- 47 $x+2 = 5$ എന്നതിന്റെ സമാന സമവാക്യം.
A $x = 3$ B $x = 2$ C $x = 5$ D $x = 7$
- 48 തുടർച്ചയായ 3 ഒറ്റ സംഖ്യകളുടെ തുക 81. അതിൽ ഏറ്റവും ചെറിയ സംഖ്യ —
A 10 B 15 C 20 D 25
- 49 10-16
16-22 എന്നീ ക്ലാസ്സുകളുടെ വലുപ്പം ——— A 10 B 6 C 16 D 26
- 50 ഒരാൾക്ക് കുറച്ച് നാണുളും കുറച്ച് തത്തകളും ഉണ്ട്. എല്ലാവരിനും കൂടി ആകെ 30 തലകളും 72 കാലുകളും ഉണ്ട്. എങ്കിൽ തത്തകളുടെ എണ്ണം —
A 24 B 10 C 12 D 18

DEPARTMENT OF ADULT EDUCATION AND EXTENSION SERVICES
UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN MATHEMATICS FOR STANDARD VIII
(English version)

Time: 1¼ hours

Mark: 50

INSTRUCTIONS

1. In each question, answers are given in A,B,C,D. Choose the correct one.
2. In the answer sheet, answers are given in A, B, C and D. Draw a circle around the correct alphabet.
3. Each questions carries one mark.

1. If the number of elements in a set is 3 then the number of subsets is -

- A. 3 B. 4 C. 6 D. 8

2. If A and B are two disjoint sets $n(A) = 3$, $n(B) = 2$, then $n(A \cup B) = --$

- A. 2 B. 3 C. 6 D. 5

3. Subset of any set is -

- A. 0 B. \emptyset C. $\{\emptyset\}$ D. 1

4. If $U = \{1, 2, 3, 4, 5\}$ and $A = \{2, 3, 5\}$

The compliment of A is

- A. $\{1, 2, 3, 4, 5\}$ B. $\{2, 3, 4\}$ C. $\{1, 4\}$ D. $\{\}$

5. If ACB, BCA , then the sets A & B are called -

- A. Universal set B. Disjoint sets
C. Empty set D. Singleton set

6. The scientist who first represented sets by diagrams

- A. John Venn
C. Euclid
- B. Pythagorous
D. Archimedes

7. Book used to maintain one's account in a Bank and kept by the depositor.

- A. cheque
B. Demand Draft
- B. Pass Book
S. Mail Transfer

8. The shares are sold and bought through -

- A. Co-operative bank
C. Employment Exchange
- B. Stock Exchange
D. Join Stock Exchange

9. The amount obtained when the profit of a company is divided is called -

- A. Dividend
C. Debentures
- B. Preference shares
D. Capital

10. If $30 : 40 = a : 20$, then $a =$ --

- A. 30 B. 25 C. 40 D. 15

11. What is the time taken by a bus to travel 600 kms, if its speed is 40 km/hr

- A. 10 B. 15 C. 20 D. 25

12. If 40 men can complete a work in 15 days. 30 men complete that work in --- days

- A. 15 B. 20 C. 20 D. 25

13. Price of a car is changed from a to b , then the ratio of change is -

- A. $a:b$ B. $b:a$ C. $a+b : b$ D. $a+b : b$

14. --- measures are necessary to construct aquadrilateral.

- A. 2 B. 3 C. 4 D. 5

15. If the length of one diagonal of a square is 8 cm the length of the second diagonal is
- A. 4 B. 8 C. 16 D. 32
16. Famous mathematician who is known as the father of Geometry.
- A. Aryabatta B. Bhaskara C. Euclid D. Pythagorous
17. If the ratios of the angles of triangle is 1:2:3 then the measure of the smallest angle is
- A. 30° B. 60° C. 90° D. 20°
18. In a ΔABC if $AB = BC = AC$ then $\angle B = --$
- A. 30° B. 50° C. 45° D. 90°
19. In a parallelogram ABCD $AB = 6$ cm, then $CD = ----$ cm
- A. 6 B. 12 C. 4 D. 5
20. The measure of the angle in a semi circle is -
- A. 45° B. 90° C. 180° D. 360°
21. In ΔDEF , $\angle D = 80^\circ$, $\angle E = 60^\circ$ the longest side is ----
- A. DE B. EF C. FD
22. The exterior angle of ΔABC is $\angle ACD$ and $\angle A = 50^\circ$, $\angle B = 55^\circ$ then $\angle ACD =$
- A. 150° B. 55° C. 105° D. 90°
23. The perimeter of an equilateral triangle having side 10 cm is---
- A. 10 B. 20 C. 30 D. 40
24. The longest side of a right angled triangle is -
- A. Base B. Attitude C. Hypotenuse D. None of these

25. The polynomial $5 + 7x^2 + 3x$ is ----

- A. Monomial B. Binomial C. Trinomial

26. $(a+3)(a-3) = \text{---}$

- A. $a^2 - 9$ B. $a^2 + 6a + 9$ C. $a^2 - 6a + 9$ D. $a^2 = 6a - 9$

27. $-3(4A - 5b) = \text{--}$

- A. $12a - 5b$ B. $12a - 15b$ C. $-12x + 15b$ D. $-12a - 15b$

28. An algebraic sentence whose truth set and the domain of the variable are identical is said to be -

- A. Open sentence B. Truth set C. Equation D. None of these

29. $(x + 3)^2 = x^2 + \text{---} + 9$

- A. $-6x$ B. $+6x$ C. $-3x$ D. $3x$

30. The length of one side of a square is $(3x + 4y)$. What is its area?

- A. $2(3x + 4y)$ B. $3x + 4y$ C. $(3x + 4y)^2$ D. $\frac{3x + 4y}{2}$

31. Factors of $12x + 18y$ is ----

- A. $12(x + y)$ B. $6(x + y)$ C. $6(2x + 3y)$ D. $6(x + 2y)$

32. Write the algebraic equation to represent the idea "4 is subtracted from 2 times a certain number"

- A. $2x + 4$ B. $2x - 4$ C. $4x + 2$ D. $4x - 2$

33. If $x - 6 = 6$, then $x = \text{----}$

- A. 12 B. 0 C. 36 D. 1

34. If $\frac{1}{4}$ of a number be 17, the number is -

- A. 68 B. 60 C. 78 D. 70

35. Find the value of K, if $36m^2 - 60mn + K$ is a perfect square

- A. $5x^2$ B. $25n^2$ C. $25n$ D. $5n$

36. The number of digits in the square root of a 7 digit number is ---

- A. 2. B. 3 C. 4 D. 5

37. Example of a surd is---

- A. $\sqrt{36}$ B. $\sqrt{400}$ C. $\sqrt{200}$ D. $\sqrt{100}$

38. Square root of 2.25 is ---

- A. 15 B. 1.5 C. .15 D. .015

39. How can 49 students be arranged if the number of benches and the number of students on a bench are equal?

- A. 4. B. 7 C. 9 D. 11

40. In a triangle length of one side is 7.5cm and its height is 8 cm, then its area is ---cm².

- A. 60 B. 30 C. 7.5 D. 8

41. Area of a Hexagon of side 'a' unit is---

- A. $\frac{\sqrt{3} a^2}{4}$ B. $\frac{\sqrt{3}a^2}{4}$ C. $\sqrt{3}a^2$ D. $\frac{6a^2}{4\sqrt{3}}$

42. A garden is in the shape of a parallelogram. If its side is 14 cm and height is 9 cm. Then its area = --- cm²

- A. 23 B. 126 C. 63 D. 149

43. Parallel sides of a trapezium are 'a' unit and 'b' unit and distance between them is 'h' unit then its area is ----

- A. $\frac{1}{2}h(a+b)$ B. $2h(a+b)$ C. $\frac{1}{2}hab$ D. $2hab$

DEPARTMENT OF ADULT EDUCATION AND EXTENSION SERVICES
UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN ENGLISH FOR STANDARD VII

SCORING KEY

1	D	18	A	35	C
2	B	19	B	36	A
3	B	20	A	37	A
4	C	21	B	38	C
5	A	22	B	39	B
6	A	23	A	40	C
7	A	24	A	41	A
8	A	25	B	42	A
9	C	26	A	43	A
10	A	27	C	44	C
11	A	28	C	45	C
12	A	29	A	46	B
13	C	30	A	47	C
14	B	31	D	48	C
15	D	32	B	49	C
16	B	33	B	50	A
17	D	34	A		

DEPARTMENT OF ADULT EDUCATION AND EXTENSION SERVICES
UNIVERSITY OF CALICUTACHIEVEMENT TEST IN HINDI STANDARD VII
SCORING KEY

1	A	18	C	35	A
2	D	19	C	36	C
3	A	20	D	37	A
4	B	21	B	38	B
5	A	22	C	39	D
6	C	23	A	40	D
7	A	24	B	41	B
8	A	25	B	42	A
9	B	26	D	43	A
10	A	27	D	44	A
11	A	28	C	45	B
12	D	29	C	46	D
13	D	30	D	47	C
14	D	31	A	48	B
15	A	32	A	49	D
16	A	33	B	50	A
17	B	34	D		

APPENDIX XXXVI

DEPARTMENT OF ADULT EDUCATION AND EXTENSION SERVICES
UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN GENERAL SCIENCE FOR STANDARD VII

SCORING KEY

1	B	18	C	35	A
2	B	19	A	36	B
3	C	20	D	37	A
4	B	21	C	38	B
5	D	22	A	39	C
6	C	23	A	40	C
7	D	24	B	41	C
8	B	25	A	42	B
9	A	26	B	43	D
10	B	27	A	44	D
11	C	28	C	45	C
12	D	29	D	46	D
13	C	30	A	47	B
14	A	31	B	48	B
15	B	32	A	49	B
16	B	33	A	50	C
17	D	34	C		

APPENDIX XXXVII

DEPARTMENT OF ADULT EDUCATION AND EXTENSION SERVICES
UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN MATHEMATICS FOR STANDARD VII

SCORING KEY

1	B	18	A	35	D
2	C	19	A	36	C
3	C	20	B	37	B
4	B	21	A	38	D
5	B	22	B	39	A
6	C	23	D	40	D
7	A	24	C	41	D
8	C	25	D	42	D
9	B	26	A	43	A
10	D	27	B	44	C
11	A	28	B	45	C
12	B	29	A	46	A
13	A	30	C	47	A
14	D	31	D	48	C
15	D	32	B	49	C
16	B	33	D	50	B
17	C	34	C		

APPENDIX XXXVIII

DEPARTMENT OF ADULT EDUCATION AND EXTENSION SERVICES
UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN ENGLISH FOR STANDARD VIII

SCORING KEY

1	B	18	B	35	B
2	A	19	C	36	B
3	D	20	C	37	A
4	A	21	C	38	B
5	A	22	C	39	C
6	B	23	C	40	A
7	A	24	A	41	C
8	C	25	A	42	B
9	C	26	C	43	A
10	B	27	B	44	B
11	A	28	C	45	C
12	B	29	B	46	B
13	C	30	C	47	D
14	C	31	B	48	A
15	B	32	C	49	B
16	D	33	A	50	B
17	A	34	A		

DEPARTMENT OF ADULT EDUCATION AND EXTENSION SERVICES
UNIVERSITY OF CALICUTACHIEVEMENT TEST IN HINDI FOR STANDARD VIII
SCORING KEY

1	B	18	B	35	A
2	D	19	A	36	A
3	B	20	A	37	A
4	B	21	A	38	A
5	B	22	B	39	B
6	C	23	B	40	C
7	B	24	C	41	C
8	B	25	A	42	C
9	C	26	D	43	C
10	A	27	A	44	A
11	A	28	C	45	C
12	C	29	C	46	C
13	A	30	B	47	A
14	C	31	C	48	D
15	A	32	A	49	C
16	B	33	B	50	B
17	C	34	B		

DEPARTMENT OF ADULT EDUCATION AND EXTENSION SERVICES
UNIVERSITY OF CALICUT

ACHIEVEMENT TEST IN GENERAL SCIENCE FOR STANDARD VIII

SCORING KEY

1	B	18	D	35	C
2	B	19	C	36	B
3	A	20	B	37	D
4	B	21	D	38	C
5	B	22	C	39	A
6	D	23	B	40	B
7	A	24	B	41	C
8	A	25	B	42	B
9	A	26	A	43	B
10	C	27	C	44	C
11	B	28	A	45	C
12	D	29	A	46	A
13	C	30	B	47	C
14	C	31	B	48	C
15	B	32	B	49	C
16	A	33	A	50	C
17	A	34	D		

DEPARTMENT OF ADULT EDUCATION AND EXTENSION SERVICES
UNIVERSITY OF CALICUTACHIEVEMENT TEST IN MATHEMATICS FOR STANDARD VIII
SCORING KEY

1	D	18	B	35	B
2	D	19	A	36	C
3	B	20	B	37	C
4	C	21	B	38	A
5	C	22	C	39	B
6	A	23	C	40	B
7	B	24	C	41	B
8	B	25	C	42	B
9	A	26	A	43	A
10	B	27	C	44	B
11	A	28	B	45	B
12	A	29	A	46	A
13	A	30	C	47	A
14	D	31	C	48	D
15	B	32	C	49	B
16	C	33	A	50	A
17	A	34	A		

**PROFORMA FOR COLLECTING MARKS OF THE FIRST AND THIRD
TERMINAL EXAMINATIONS OF THE RECIPIENTS OF THE
MERIT SCHOLARSHIP**

1. Name of pupils : 3. Name of caste or tribe :
2. Name of school : 4. Home address :
-

5. Marks :

Sl. No.	Subject	First Term	Third Term
1	Malayalam		
2	English		
3	Hindi		
4	Social Studies		
5	General Science		
6	Mathematics		

Signature of Headmaster

PROFORMA- II
Socio - Economic Status Scale.

Sl. No	Name of Members of the Family	Relationship with the Head of the family	Educational Status	Occupation / Jobs	Monthly Income
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Please Tick

പിട്: ഓല/ഓട്/ R C C

വൈദ്യുതി: ഉണ്ട്/ഇല്ല

Signature of the H. M.

LIST OF PRE-MATRIC HOSTELS

Sl. No.	Name of Pre-Matric Hostels	Boys/ Girls	District
1	P.M.H. Irinjalakuda	Boys	Trichur
2	P.M.H. Engandiyoor	"	"
3	P.M.H. Nandikkara	"	"
4	P.M.H. Kodungallur	Girls	"
5	P.M.H. Cheruthuruthy	"	"
6	P.M.H. Pattambi	Boys	Palakkad
7	P.M.H. Ettiyappanam P.M.H. at Mannarkadu	"	"
8	P.M.H. Shornur	Girls	"
9	P.M.H. Mannarkadu P.M.H. (Perumpaderi)	"	"
10	P.M.H. Mundur	"	"
11	P.M.H. Vadakancherry	Boys	"
12	P.M.H. Kollankode	"	"
13	P.M.H. Puthunagaram	"	"
14	P.M.H. Sreekrishnapuram	"	"
15	P.M.H. Malapuram	Boys	Malapuram
16	P.M.H. Thiruvally	"	"

17	P.M.H. Valancherry	"	"
18	P.M.H. Vandoor	Girls	"
19	P.M.H. Manjeri	"	"
20	P.M.H. Manathumangalam	"	"
21	P.M.H. Mookkuthala	"	"
22	P.M.H. Nadakkavu	Boys	Kozhikode
23	P.M.H. Kadalundy	"	"
24	P.M.H. Elathur	Girls	'
25	P.M.H. Andikkodu	"	"
26	P.M.H. Azhiyoor	"	"
27	P.M.H. Azhiyoor	Boys	"
28	P.M.H. Wythiri	Boys	Wynad
29	P.M.H. Thaliparamb	Boys	Kannur
30	P.M.H. Pattiam at Pinarai	"	'
31	P.M.H. Thalassery	Girls	"
32	P.M.H. Kannur	"	"
33	P.M.H. Thaliparamba	"	"
34	P.M.H. Bangalam	Boys	Kasaragod
35	P.M.H. Kolathur	"	"
36	P.M.H. Kanhangad	Girls	"
37	P.M.H. Kasaragod	"	"

S. T. HOSTEL

38	P.M.H. Peechi	Girls	Trichur
39	P.M.H. Agali	Boys	Palghat
40	P.M.H. Palakkadu	'	"
41	P.M.H. Palakkadu	Girls	'
42	P.M.H. Agali	"	'
43	P.M.H. Puthur	Boys	"
44	P.M.H. Kukkumpalayam	'	"
45	P.M.H. Kottuthara Kadampara	'	"
46	P.M.H. Chindakki	"	'
47	P.M.H. Manimooli	Boys	Malappuram
48	P.M.H. Mampad	"	"
49	P.M.H. Nilambur	Girls	"
50	P.M.H. Pothukal	"	"
51	P.M.H. Chungathara	"	"
52	P.M.H. Pothukal	Boys	"
53	P.M.H. East Hill P.M.H. Kozhikode	Girls	Kozhikode
54	P.M.H. Kunnamangalam	Boys	"
55	P.M.H. Puthippadi	"	"
56	P.M.H. Lakkadi	Boys	Wayanad

57	P.M.H. Meppadi	"	"
58	P.M.H. Vaduvanchal	"	"
59	P.M.H. Bathery at Meenangadi	"	"
60	P.M.H. Meenangadi	"	"
61	P.M.H. Veliyambham P.M.H. at Meenangadi	Girls	"
62	P.M.H. Ambalavayal	"	"
63	P.M.H. Cheeral	"	"
64	P.M.H. Kakkavayal	Boys	"
65	P.M.H. Thalapuzha	"	"
66	P.M.H. Thondarnadu	"	"
67	P.M.H. Ellanardhan	"	"
68	P.M.H. Vakery	"	"
69	P.M.H. Chambukavu	"	Kannur
70	P.M.H. Cheekery	"	"
71	P.M.H. Pattiam	"	"
72	P.M.H. Kolayadu	Girls	"
73	P.M.H. Vayathur	Boys	"
74	P.M.H. Muringot- vilakodu	"	"

Note: PMH = Pre-Matric Hostel

APPENDIX XLV

Edn.B3.10632/95. Office of the Director of Sch.Castes Devpt.,
Thiruvananthapuram, 19.6.95.

From The Director

To Dr.K. Sivarajan,
Project Officer,
Dept. of Adult Education & Extension Services,
University of Calicut, Malappuram Dist.

Sir,
Sub:- Collection of data for Research work - reg.
Ref:- Lr.No.Nil dt. 2.6.95 from Dr.K. Sivarajan,
Project Officer, University of Calicut.

Sir,
With reference to the above, Sri P.K.Achuthan,
Asst.Educational Officer, Tirur is hereby permitted to visit the
Pre-matric Hostels in this Department for collection of data
regarding the efficiency of the Tutorial System.

Yours faithfully,

M. S. K. K.

For Director of Sch.Castes Devpt.

B

No.Dev.C2.7231/95

Office of the
Director of Sch. Tribes Devt.,
Thiruvananthapuram, dt.6.6.95.

From
The Director.

To
The Tribal Development Officer,

Sir,
Sub: Data collection on tutorial system - regarding.
Ref: Lr. from K.Sivarajan Dept. of Adult Edn.dt.2.6.95.

.....

I am to inform you that Mr.P.K. Achuthan, Assistant educational officer is insisting some of the tribal hostels under your jurisdiction for collecting some data on tutorial system. I request you to render necessary assistance in collection of data required for his research work.

Yours faithfully,
Sd/- Director.


For Director.

Copy to: Dr.K. Sivarajan,
Project Officer, Dept. of Adult Education and
Extension Service,
Calicut University-673635.

hh.6.6.

Office of the Director of Public
Instruction, Thiruvananthapuram
dt: 5.2.96

D3/1641/96/K.Dis.

From The Director of Public Instruction

To The Deputy Director Education,
Trichur/Palakkad/Thiruvananthapuram/Calicut/Kannur/
Kasaragod

Sir, Sub: Research data collection request for permission

Ref: Lr.No.AE/2/Resear/95 dt. 4.11.95 of the Head of the
Dept. of Adult Education and extension service Univer-
sity of Calicut.

....

I am to inform you that Sri.P.K . Achuthan, Asstdl.
officer, Tirur is now doing part time research under the guidance
of Dr.K. Sivarajan on the topic efficiency of supporting programmes
for SC/ST pupils. As part of his research work he has collect
data from Educational offices and Institutions in your district.
So I request you to give maximum Co-operation and support for his
research work when he approached to you. You may also give necessary
direction to the AEOs/DEOs and HMs concerned in your district
in this matter.

sd/-

for Director of Public Instruction

Copy to Sri.P.K. Achuthan, AEO Tirur for information

: The Head of the Department, Department of Adult Education
and extension service, University of Calicut, Calicut.
University P.O 673636.

: S/F.

//Approved for issue//

Superintendent.

ab/6/2.

NB4470

Handwritten notes: 15/11/96, 27/2/96, 27/2/96