

# HIGH SCHOOL CURRICULUM

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# 2009



**MIZORAM BOARD OF SCHOOL EDUCATION  
AIZAWL : 796012**

# HIGH SCHOOL CURRICULUM

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Effective from the academic session 2009 for Classes VIII and IX and from  
the academic session 2010 for Class X

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MIZORAM BOARD OF SCHOOL EDUCATION  
AIZAWL : 796 012

c Secretary, MBSE, Aizawl

October, 2008  
800 copies

Price : Rs 50/-

Note : The Board reserves the right to amend Syllabi and Courses as and when it deems necessary. The Schools are required to strictly follow the Syllabi and text books prescribed by the Board for the academic sessions and examinations concerned. No deviation is permissible.

***Published by the Secretary, MBSE, Aizawl***

## **FOREWORD**

In order to keep pace with an ever changing socio-cultural environment with new ideas and expectations arising each day, the Mizoram Board of School Education has once again revised its High School curriculum and syllabi. The new curriculum and syllabi have been framed in line with the National Curriculum Framework 2005. Accordingly, new textbooks and instructional materials have been developed through a series of consultations and workshops conducted by the MBSE.

The new curriculum and syllabi for the Secondary Stage is to be implemented in two phases. The first phase will be introduced from the 2009 academic session onwards and will encompass the curriculum and syllabi of Classes VIII and IX. The second phase, encompassing the Class X curriculum and syllabi will be introduced from the 2010 academic session onwards, whereupon, the HSLC examination based on the new curriculum will be held.

It is hoped that all involved in the teaching-learning process would benefit greatly from this new curriculum and, in turn, contribute towards its effective implementation and success.

**Aizawl**  
**October 2008**

**Laldawngliana**  
Chairman

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# 1. ELIGIBILITY OF CANDIDATES

## Admission of students to a School, Transfer/ Migration of Students.

### 1. ADMISSION - GENERAL CONDITIONS:

- 1.1. A student seeking admission to any class in a 'School' will be eligible for admission to that class only if he :
- (i) has been studying in a school affiliated to this Board or any other recognised Board of Secondary Education in India;\*
  - (ii) has passed qualifying or equivalent qualifying examination making him eligible for admission to that class :
  - (iii) satisfies the requirements of age limits (minimum & maximum) as determined by the State/U.T. Government and applicable to the place where the school is located:
  - (iv) produces:-
    - (a) the School Leaving Certificate/Transfer Certificate signed by the Head of the Institution last attended and countersigned; and,
    - (b) document(s) in support of his having passed the qualifying or equivalent qualifying examination.

#### Explanation :-

- (a) A person who has been studying in an institution, which is not affiliated to this Board or by any other recognised Board of Secondary Education of India or by the State/U.T. Government of the concerned place, shall not be admitted to any class of a 'school' on the basis of certificate(s) of such unrecognised institution attended by him earlier.
- (b) 'Qualifying Examination' means an examination – the passing of which makes a student eligible for admission to a particular class and 'equivalent examination means- an examination conducted by any recognised Board of Secondary Education/Indian University or an institution recognised by

Education or affiliated to such Board/University and is recognised by this Board as equivalent to the corresponding examination conducted by this Board or conducted by a "School" affiliated to/recognised by this Board.

- 1.2. No student migrating from a school in a foreign country other than the school affiliated to this Board shall be eligible for admission unless an eligibility certificate in respect of such a student has been obtained from this Board. For obtaining eligibility certificate from the Board, the Principal of the School to which admission is being sought will submit to the Board full details of the case and relevant documents with his own remarks/recommendations. The eligibility certificate will be issued by the Board only after the Board is satisfied that the course of study undergone and examination passed is equivalent to the corresponding class of this Board.
- 1.3 No person who is under the sentence of rustication or is expelled from any Board/University/ School or is debarred from appearing in the examination for whatever reason by any Board/ University shall be admitted to any class in a school affiliated to this Board.
- 1.4 No student shall be admitted or promoted to any subsequent higher class in any school unless he has completed the regular course of study of the class to which he was admitted at the beginning of the academic session and has passed the examination, at the end of the concerned academic session qualifying him for promotion to the next higher class.

## **2. ADMISSION : SPECIFIC REQUIREMENTS**

- 2.1** Admission upto Class VIII (i.e. class VIII and below) shall be regulated by the rules and regulations of the Board.
- 2.2** Admission to Class VIII in a school shall be opened only to such a student who has passed class VII examination from an institution affiliated to this Board or to any recognised Board or is recognised by the Education Department.
- 2.3** Admission to class IX or X in a school shall be opened only to such a student who :-
- (a) has completed a regular course of study for class VIII or IX and:
  - (b) has passed class VIII or IX examination from an institution affiliated to this Board or to any recognised Board or is recognised by the Education Department of the Government of the State/U.T. in which such an institution is located.

## **3. ADMISSION PROCEDURE**

- (i) Admission register in the form prescribed by the State Government concerned as the case may be, shall be maintained by the "School" where the name of every student joining "the School" shall be entered.
- (ii) If a student applying for admission to a school, has attended any other school, an authenticated copy of the Transfer Certificate from his last school must be produced before his name can be entered in the Admission Register.
- (iii) In no case shall a student be admitted into a class higher than that for which he is entitled according to the Transfer Certificate.
- (iv) A student shall not be allowed to migrate from one "School" to another during the session after his name has been sent up for the examination of the Board. This condition may be waived only in special circumstances by the Chairman.
- (v) A student leaving his school at the end of a session or who is permitted to leave his school during the session shall, on a payment of all dues, receive an authenticated copy of the Transfer Certificate up-to-date. A duplicate copy may be issued if the head of the institution is satisfied that the original is lost but it shall always be so marked.
- (vi) In case a student from an institution not affiliated to the Board seeks admission in a school affiliated to the Board, such a student shall obtain permission from the Chairman of the Board.

## **4. ADMISSION TO EXAMINATIONS**

### **General**

No student who has been expelled or is under punishment or rustication or is debarred from appearing in or taking an examination for any reason whatsoever shall be admitted to any examination of the Board.

## **5. ACADEMIC QUALIFICATIONS FOR UNDERTAKING EXAMINATIONS:**

A candidate for High School Leaving Certificate Examination should have :

- (i) passed the Middle School Leaving Certificate Examination (Class VII) of a Board or of affiliated/recognised school at least three years earlier than the year in which he would take Secondary School (Class X) Examination.
- (ii) secured a grade higher than grade E in each of the subjects of internal assessment at the examination referred to at (a) above.

## **ADMISSION TO EXAMINATIONS: REGULAR CANDIDATES**

**6.1** High School Leaving Certificate Examination will be opened to such regular candidates who have submitted their duly completed application for admission to the concerned examination, and/or his name has been registered in the manner prescribed by the Board along with the prescribed fee forwarded to the Controller of Examinations by the Head of the Institution/School with the following duly certified by such Head :

- (i) that he possesses the academic qualifications as laid down by the Mizoram Board of School Education ;
  - (ii) that he is on the active roll of the School ;
  - (iii) that he has completed a “regular course of study” as defined and detailed in Examination Bye Laws in a school in the subjects in which he would appear in the examination ;
  - (iv) that he bears a good moral character and is of good conduct ; and
  - (v) that he satisfies all other provisions, applicable to him/her, of the examination Bye Laws and any other provision made by the Board governing admission to the examination concerned, if any.
- 6.2.**
- (i) It is mandatory upon a school affiliated to Board to follow the Examination Bye-Laws of the Board in toto.
  - (ii) No affiliated school shall endeavour to present the candidates who are not on its roll nor will it present the candidates of its unaffiliated branch/schools to any of the Board’s examinations.
  - (iii) If the Board has reasons to believe that an affiliated school is not following the subsection (i) and (ii) of this section, the Board will resort to penalties as deemed fit.

## **7. A REGULAR COURSE OF STUDY**

- 7.1**
- (i) The expression “a regular course of study” referred to in the Examination Bye-Laws means at least 75% of attendance in the classes held; counted from the day of commencement of teaching of Classes X upto the 1<sup>st</sup> of the month preceding the month in which the examination of the Board commences. Candidates taking up subject(s) involving practicals shall also be required to have put in at least 75% of the total attendance for practical work in the subject in the laboratory. Heads of Institutions shall not allow a candidate who has offered subject(s) involving practicals to take the practical examination(s) unless the candidate fulfils the attendance requirements as given in this Rule.
  - (ii) The candidates who has failed in the same examination in the preceding year and who rejoins class X shall be required to put in 75% of attendance calculated on the possible attendance from the 1<sup>st</sup> of the month following the publication of the results of that examination by the Board up to the 1<sup>st</sup> of the month preceding the month in which the examination of the Board commences.
  - (iii) In the case of migration from other institution, attendance at the institution/school recognised by the Education Department of the state from which the candidate migrates will be taken into account in calculating the required percentage of attendance.

## **7.2 Requirement of Attendance in Subjects of Internal Assessment**

- (i) No student from a School affiliated to the Board shall be eligible to take the examination unless he has completed 75% of attendance counted from the opening of class X upto the 1<sup>st</sup> of the month preceding the month in which the examination commences in the subjects of internal assessment.
- (ii) Exemption from W.E./Art Education/P&HE may be granted to a candidate on medical grounds provided the application is supported by a certificate given by a Registered Medical Officer of the rank not below that of Asstt. Surgeon and forwarded by the Head of the School with his recommendations.
- (iii) The Chairman shall have powers to condone shortage of attendances in subjects of internal assessment.

## **8. RULES FOR CONDONATION OF SHORTAGE OF ATTENDANCES**

- (i) If a candidate's attendance falls short of the prescribed percentage, the Head of the School may submit his name to the Board provisionally. If the candidate is still short of the required percentage of attendance within three weeks of the commencement of the examination, the Head of the institution shall report the case to the Secretary, MBSE immediately. If in the opinion of the Head of the institution, the candidate deserves special consideration, he may submit his recommendation to the Secretary, MBSE not later than three weeks before the commencement of the examination for condonation of shortage in attendance by the Chairman, MBSE, who may issue orders as he may deem proper. The Head of the School, in his letter requesting for condonation of shortage in attendance should give the maximum possible attendance by a student counted from the day of commencement of teaching of class X (beginning of the session) upto the 1<sup>st</sup> of the month preceding the month in which the examination of the Board commences, attendance by the candidate in question during the aforesaid period & the percentage of attendance by such candidate during the aforesaid period.
- (ii) Shortage upto 15% only may be condoned by the Chairman. Case of candidates with attendance below 60% in class X shall not be considered for condonation of shortage of attendance by the Chairman only in exceptional circumstances created on medical grounds such as candidate suffering from serious disease like Cancer, AIDS, TB or any other disease or injury requiring long period of hospitalisation.
- (iii) The Principal shall refer a case of shortage within the above prescribed limit of condonation to the Board, either with the recommendations or with valid reasons for not recommending the case.
- (iv) The following may be considered valid reasons for recommending the cases of the candidates with attendance less than the prescribed percentage:-
  - (a) prolonged illness:
  - (b) loss of father/mother or some other such incident leading to his absence from the school, and meriting special consideration: and
  - (c) any other reason of similar serious nature.
- (v) Authorised participation in sponsored tournaments and Sports' meet of not less than inter-school level and at NCC/NSS Camps including the days of journeys for such participation shall be counted as full attendance.

## **9. DETAINING OF ELIGIBLE CANDIDATES**

In no case the heads of affiliated schools shall detain eligible candidates from appearing at the examination.

## **10. ELIGIBILITY TO APPEAR AS REGULAR CANDIDATE:**

**10.1** A student of affiliated school/institution and non affiliated institution having permission to open school from Govt. of Mizoram having the requisite number of attendance and academic activities shall be eligible to appear as regular candidate at the High School Leaving Certificate Examination fulfilling the following conditions:-

- (i) The Candidate for HSLC Examination should have passed the MSLC/MESLC Examination of a Board at least three years before the year in which he would appear in the HSLC Examination.
- (ii) the candidates should have attended the final class/ year of the stage of school/institution for not less than 75% of the working days during the academic year;
- (iii) the Board may, for special reasons, and on the recommendation of the head of the school/institution concerned, condone the deficiency in the attendance of a candidate as prescribed under clause (i) above;
- (iv) in case the deficiency in the attendance of any regular candidate is not condoned by the Board, such application shall be withdrawn by the concerned Head of the School/Institution, from the Board, and the Examination fee etc., refunded, if already paid to the Board.

**10.2** The head of school shall certify that :-

- (i) the candidate has attended the prescribed percentage of attendance as regular student of his school as laid in sub-regulation (1) above, and that candidate has regularly and diligently prosecuted his/her studies;
- (ii) to the best of his knowledge, the candidate is eligible and fit for admission to the examination and that he knows nothing against the character and conduct;
- (iii) the candidate who will appear for High School Leaving Certificate Examination has himself given his personal information on the application form and has signed the application in his presence.

**10.3** There shall be no age limit for a candidate for admission to the examination.

**10.4** The Head of School shall certify the date of birth of a candidate strictly as recorded in the admission Register of the school where such candidate is to appear in the High School Leaving Certificate Examination.

**10.5** The head of school shall attest the correctness/ genuineness of the photograph submitted by the candidate.

**10.6** A candidate whose name is struck off the rolls of the school after submission of his name for admission to the Examination to the Board, shall cease to be a regular candidate and as such will not be eligible for admission to or appearing at the examinations. In such cases, the head of the institution shall submit a written report to the Board stating the reasons for striking off the candidate's name from the roll for final decision of the Board.

- 10.7**
- (i) It is mandatory upon a school affiliated to Board to follow the Examination Bye Laws of the Board in toto.
  - (ii) No affiliated school shall endeavour to present candidates who are not on its roll nor will it present the candidates of non-permitted schools to any of the Board's Examinations.
  - (iii) If the Board has reasons to believe that an affiliated school is not following the sub-section 1 and 2 of this sections, the Board shall resort to penalties as deemed fit.

**11. Eligibility to appear as private candidate:**

**11.1** A student shall be eligible to appear as a private candidate for High School Leaving Certificate examination provided that he/she has passed the MSLC/ MESLC Examination of a Board at least three years before the year in which he/she would appear in the HSLC Examination.

- (i) The following categories of candidates shall also be eligible to appear as private candidates at the HSLC Examinations -
  - (a) A candidate who had failed at the High School Leaving Certificate examinations of the Board will be eligible to reappear at the subsequent examination as a private candidate in the syllabus and textbooks as prescribed for the examinations of the year in which he/she will reappear.
  - (b) A teacher serving in the institutions affiliated to the Board shall be eligible to appear as Teacher Candidate. Teacher candidates shall submit their application form along with a certificate issued by the Head of institutions in which he/she is serving duly countersigned by the concerned District Education Officer/SDEO through the Centre Superintendent from which he/she desires to appear.
  - (c) Women/Physically handicapped students on producing reasonable evidence of having difficulty to attend normal institutions in the subjects not involving practical training/ examinations, subject to the condition that they have passed the MSLC/MESLC Examination of a Board at least three years before the year in which they would appear in the HSLC Examination.

- (d) Detenu candidates and candidates from Defence services shall fall under the category of the Private candidates. They will be required to submit their application for appearing at the High School Leaving Certificate examinations duly filled in along with the prescribed fees, as notified from time to time, direct to the Centre Superintendent through which they desire to appear at the High School Leaving Certificate examination, on or before the date as may be fixed by the Board. A detenu candidate will be required to furnish along with his/her applications, a certificate from a Gazetted Officer of the Prison/Jail authorities to the effect that the candidate is a deten.

## **12. PROCEDURE FOR SUBMISSION OF APPLICATIONS OF PRIVATE CANDIDATES AT HIGH SCHOOL LEAVING CERTIFICATE EXAMINATION**

- (i) The application forms for teachers shall be countersigned by the Director of School Education or by the Head of an institution affiliated to the Board.
- (ii) A private candidate must submit within the prescribed date to the Secretary of the Board, an application in the form prescribed together with the prescribed fee for the examination and two copies of the passport size photograph duly signed by the candidate and countersigned by one of the authorities mentioned at (i) above.
- (iii) If the application of a private candidate is received after the prescribed date, he shall pay late fee as prescribed.
- (iv) When a private candidate's application for admission to the examination is rejected, the examination fee including late fee, if any, paid by him less Rs. 10/- or the amount as decided by the President from time to time will be refunded to him provided that in the case of candidates whose applications have been rejected on account of the candidates producing a false certificate or making false statement in the application, the full amount of fees shall be forfeited.
- (v) Those regular candidates who have failed to obtain promotion to class X of the school affiliated to the Board or any other recognised board shall not be admitted to the High School Leaving Certificate Examination of the Board as private candidates.
- (vi) Every year in the beginning of the session, the heads of schools shall send to the Secretary of the Board, a list of female and handicapped students who have been detained in class IX containing students' name, date of birth, name of his/her father or guardian and the place of residence.

## 13. SCHEME OF EXAMINATIONS AND PASS CRITERIA

### 13.1 GENERAL CONDITIONS

- (i) The Scheme of Examinations and Pass Criteria for High School Leaving Certificate Examination conducted by the Board shall be as laid down from time to time.
- (ii) Class IX examination shall be conducted internally by the schools themselves.
- (iii) The Board will conduct the external examinations at the end of class X.
- (iv) Class X examinations will be based on the Syllabi as prescribed by the Board for class X from time to time.
- (v) Number of papers, duration of examination and marks for each subject/paper will be as specified in the curriculum.
- (vi) The examination would be conducted in theory as well as in practicals, depending upon the nature of the subject(s) and the marks/grades allotted shall be as prescribed in the curriculum.
- (vii) Marks/grades shall be awarded for individual subjects and the aggregate marks shall be given.

### 13.2 SCHEME OF EXAMINATIONS

- i) Assessment in the following subjects will be undertaken by the schools themselves in terms of grades on a five-point scale (i.e. A.B.C.D & E)
  - Work Experience
  - Art Education
  - Physical & Health Education
- ii) The evaluation for subjects of internal assessment shall be based on cumulative record of the candidate during his/her continuous assessment in the school.
- iii) Schools are expected to maintain regular records of student's achievement and progress. These records are subject to scrutiny by the Board when it deems fit.
- iv) Details of question papers, marks and duration are given below :

<i>Sl. No.</i>	<i>Subject</i>	<i>No. of Question Papers</i>	<i>Max. Marks</i>	<i>Duration</i>
1	Language I	1	100	3 hours
2	Language II	1	100	3 hours
3	Mathematics	1	100	3 hours
4	Science	1 Th & Pr	80+20	3 hours
5	Social Science	1	100	3 hours
<b>Additional Subjects</b>				
	(i) Commercial Studies	1	100	3 hours
	(ii) Home Science	1 Th & Pr	80+20	3 hours
	(iii) Introductory Information Technology	1 Th & Pr	40+60	3 hours
	(iv) Civics & Economics	1	100	3 hours

#### Notes:

1. \*Practicals in Science (20 Marks), Home Science (20 marks), Information Technology (60 marks) will be conducted by the schools and marks will be reported to the Board. For further details about options available and break up of marks please refer to the syllabi of the discipline concerned.
2. The candidates from recognised schools having physical deformity or otherwise unable to take part in Work Experience, Physical and Health Education may be granted exemption by the Chairman of the Board on the recommendation of the Head of Institution on the merit of each case. Request for exemption should be supported by documentary evidence like Medical Certificate from a Medical Officer not below the rank of an Assistant Surgeon.

3. Assessment of the subjects as given in 2.2 (i) above for Private and candidates sponsored by Adult Schools shall be made by the Centre Superintendent/Head of Institution.

### **13.3 Criteria and Classification of Successful Candidates**

(i) **Pass Criteria :**

A candidate shall be declared to have passed in the High School Leaving Certificate Examination if he/she obtains -

- a) 33% of total marks in each theory paper
- b) 33% of total marks in each practical paper and
- c) 33% of the aggregate marks.
- d) 'D' grade in the internally assessed subjects.

A candidate shall be required to pass in Theory and Practical Examination separately.

(ii) **Classification of Successful Candidates :**

A candidate shall be placed in -

- (a) Distinction Division if he/she secures 75% or more of the aggregate marks;
- (b) First Division if he/she secures 60% and above but below 75% of the aggregate marks;
- (c) Second Division if he/she secures 50% and above but below 60% of the aggregate marks; and (d) Third Division if he/she secures 33% and above but below 50% of the aggregate marks.

### **13.4 Excess marks in Additional Subjects**

Excess marks over the pass marks (above 33%) obtained in the additional subject shall not be taken into account for determining rank and division of the candidate.

### **13.5 Eligibility for Compartment**

A candidate failing in one of the five subjects of external examination shall be placed in compartment in those subjects provided he/she qualifies in all the subjects of internal assessment.

### **13.6 COMPARTMENT EXAMINATION FOR SECONDARY SCHOOL EXAMINATION**

- (i) A candidate placed in compartment may reappear at the compartmental examination to be held in June/July and may avail himself/herself of the second chance in the annual Board Examination. The candidate will be declared "Pass" provided he/she qualifies the compartmental subject/subjects in which he/she failed.
- (ii) A candidate who does not appear or fails at one or both the chances of compartment shall be treated to have failed in the examination and shall be required to re-appear in all the subjects at the subsequent annual examination of the Board as per syllabi and courses laid down for the examination concerned in order to pass the examination. The candidate shall have the option to appear at the practical examination in the subjects involving practical or retain their previous marks in one more annual examination after the 2<sup>nd</sup> chance compartment.
- (iii) Syllabi and Courses for the Compartmental Candidates in annual Board Examination shall be the same as applicable to the candidates of full subjects appearing at the examination.
- (iv) A candidate placed in compartment shall be allowed to appear only in those subjects in which he/she has been placed in compartment at the Second Chance Compartmental Examination.
- (v) For subjects involving practical work, in case the candidate has passed in practical at the main examination he/she shall appear only in theory part and previous practical marks will be carried forward and accounted for. In case a candidate has failed in practical he/she shall have to appear in theory and practical both irrespective of the fact that he/she has already cleared the theory examination.

- (vi) A candidate who is placed in compartment in the Secondary School Examination (Class X) shall be admitted provisionally to Class XI till he takes in first chance compartment examination to be held in June/July of that year. His/her admission shall be treated as cancelled if he/she fails to pass at the first chance compartment examination.

### **13.7 RETENTION OF PRACTICAL MARKS IN RESPECT OF FAILURE CANDIDATES FOR SECONDARY SCHOOL EXAMINATION.**

A candidate who has failed in the examination in the first attempt shall be required to re-appear in all the subjects at the subsequent annual examination of the Board but shall have the option to appear for the practical examination in subjects involving practicals or retain the previous year's practical marks for two consecutive years only. In case he/she fails to pass the examination in two consecutive years, he/she shall have to re-appear in all the subjects including practicals.

### **13.8 IMPROVEMENT OF PERFORMANCE**

#### **Secondary Examination**

A candidate who has passed Secondary School Examination of the Board may reappear at the examination for improvement of performance in one or more subjects in the main examination in succeeding year only, provided he/she has not pursued higher studies in the mean time. He/she shall appear as a private candidate. Those appearing in the whole examination, may appear as regular school candidates also shall be treated as cancelled if he/she fails to pass at the first chance compartment examination. In case a candidate fails to improve upon his / her performance in the re-examination, the marks obtained in the previous examination would be retained.

### **13.9 EXEMPTION TO SPASTIC, BLIND AND PHYSICALLY HANDICAPPED CANDIDATES**

Dyslexic Spastic candidates and candidates with visual and hearing impairment have the option of studying one compulsory language as against two. This language should be in consonance with the overall spirit of the third language formula prescribed by the Board. Besides one language, any four of the following subjects be offered:-

Mathematics, Science, Social Science, another language, Home Science and Information Technology.

### **13.10 EXAMINATION BYE-LAWS**

Rest of conditions for appearing in the examination shall be laid down in the Examination Bye-Laws from time to time.

## **14. SCHEME OF STUDIES**

### **14.1 SUBJECTS OF STUDIES FOR CLASSES IX & X**

The learning areas will include:

Two Languages:		
(1) English or Hindi (Course A)		-100 marks
(2) Any one from the following:		
Hindi (Course B), Assamese, Bengali, Manipuri,		
Nepali, Mizo, Khasi, Garo, Tynnidie, Alternative English.		-100 marks
(3) Mathematics		-100 marks
(4) Science		-100 marks
(5) Social Science		-100 marks
(6) Physical and Health Education		-Grade
(7) Work Experience		-Grade
(8) Art Education		-Grade
	<b>Total</b>	<b>500</b>

**Note :**

1. The subjects mentioned in sl. nos 6, 7,8 of 14.2 (Subject of Studies), are to be internally examined in Letter Grade System of 5-point scale.
2. For second language, only those candidates who are unable to offer any of the other given languages will be allowed to offer Alternative English as a second language.

**14.3 ADDITIONAL SUBJECTS**

Students may offer any one of the following as an additional subject :

- Language other than the two compulsory languages  
(offered as subjects of study)  
OR
- Commercial Studies/Home Science/ Introductory Information Technology/Civics  
& Economics

**Note:**

1. Marks obtained by the candidate in the additional subject will be reflected in the candidate's marksheet. Excess marks over the pass marks (above 33%) obtained in the additional subject shall not be taken into account for determining rank and division of the candidate.

**14.4 INSTRUCTIONAL TIME**

Assuming an academic week consisting of 40 periods of 40 minutes duration each, the broad distribution of periods per week will be as follows:

<b>Subjects</b>	<b>Suggested periods for Class X</b>
Language I	6
Language II	5
Mathematics	8
Science & Technology	8
Social Science	8
Physical and Health Education	1
Work Experience	2
Art Education	1

**Note:** While designing the courses it has been presumed that, given margin for vacations, public holidays and other contingencies, a minimum of 30 weeks of teaching time will be available in each session for actual instructional transaction. Accordingly the distribution of periods over units and sub-units has been done which is only suggestive in character. The school, keeping the overall number of periods in each subject/area the same, may assign more or less number of periods to individual units according to their relative importance, if thought necessary necessary. The distribution of marks over each unit (unit wise weightage), is, however, prescriptive hence shall remain unchanged.

**14.5 MEDIUM OF INSTRUCTION**

The medium of instruction in general in all the schools affiliated with the Board shall be English.  
HIGH SCHOOL MIZO =AWNG

# MIZO

## CLASS - IX

### **Ngaihthlak thiam (Listening) :**

- 1) Mi thusawi reng reng dawhthei taka ngaihthlain an thusawi tlangpui an hrethiam ang
- 2) Thusawi an ngaihthlakin \awngkam mawi leh mawi lote, \awngkam hawihhawm leh hawihhawm lote an hre hrang thiam ang.
- 3) Thusawi leh mi thu chhiar rik an ngaihthlakin a pawimawh lai deuhte an lo chinchhiah thei ang.
- 4) Hla thu chhiar an ngaihthlakin a awmzia an hrethiamin eng lam hawi hla nge tih an thliar thiam ang.
- 5) Chetze hmanga mi thu sawi an man thiam ang.

### **| awngthiam (Speaking) :**

- 1) Nal tak leh dik takin thu an sawi thiam ang.
- 2) | awngkam hman dan chi hrang hrang an hmang thiam tawh ang
- 3) | hian pawlho aiawh emaw mimal tu tan emaw mamawh leh dilna an sawisak thiam hle tawh ang.
- 4) Midang hnenah an ngaihthlan an sawi chiang thiam hle tawh ang.
- 5) Midangte nena thil sawihonaah telin an sawi ve thei tawh ang.
- 6) A tla chawpa thusawi an thiam hle tawh ang.

### **Chhiar thiam (Reading) :**

- 1) Thuziak chi hrang hrang - thawnthu, essay leh mimal chanchin te a awmze hrethiam chungin a ri leh ri lovin an chhiar thiam ang.
- 2) Hla thu chi hrang hrang a lam rik dan tur ang takin an chhiar thiam tawh ang.
- 3) Thu ziak eng pawh nal takin an chhiar thiam tawh ang.

### **Ziah thiam (Writing) :**

- 1) Thupui thlan sa hmangin essay thumal 200 aia tam pawh an ziak thiam tawh ang.
- 2) An thu mal hriat tawhte dik takin an hmang thiam ang a, thu ziak zawm leh zawm loh turte pawh an thiam tawh ang.
- 3) Punctuation Mark hrang hrang an hmang thiam tawh ang.
- 4) Mizo \awngkauchheh leh \awng upa hman tlanglawn deuhte hmangin thu an phuah thiam tawh ang.
- 5) Thil lo thleng a hmuh dan report an ziak chhuak thiam tawh ang.
- 6) Lekhathawn ngaihthawm leh awmze nei takin an ziak thiam tawh ang.

### **Thumal hriat (Vocabulary) :**

1. Mizo \awng tluang pangngai thu mal an hre kim thawkhat tawh ang a, \awng un deuh pawh an hre nual tawh ang.

## CLASS - X

### Ngaihthlak thiam (Listening) :

- 1) Mi thusawi r>ng r>ng dawhthei taka ngaihthlain an thusawi tlangpui an hrethiam ang
- 2) Thusawi an ngaihthlak in \awngkam mawi leh mawi lote, \awngkam hawihhawm leh hawihhawm lote an hre hrang thiam ang.
- 3) Thusawi leh mi thu chhiar rik an ngaihthlak in an lo hrethiam ang a, anmahni ngeiin an ngaihthlak in an lo siam ve zung zung thei tawh ang.
- 4) Hla thu chhiar an ngaihthlak in eng lam hawi hla nge tih an thliar thiam ang a, anmahni ngei pawhin an tui pui pha tawh ang.
- 5) Chetze hmanga mi thusawi an man thiam ang.

### | awng thiam (Speaking) :

- 1) Nal tak leh dik takin thu an sawi thiam ang.
- 2) Mipui hmaah pawh thu an sawi ve ngam tawh ang.
- 3) | hian pawlho aiawh emaw mimal tu tan emaw mamawh leh dilna sawisak an harsat tawh lo ang..
- 4) Midang hnenah an ngaihthlak in chiang takin an sawi thiam tawh ang.
- 5) Midangte nena thil sawihonaah (discussion)-ah telin an sawi ve thei tawh ang.
- 6) A tla chawpa thusawi an thiam viau tawh ang.
- 7) An \awngkam chhuakah lawmna leh lungngaihna an tilang thiam tawh ang.

### Chhiar thiam (Reading) :

- 1) Thuziak chi hrang hrang - thawnthu, essay leh mimal chanchin te a awmze hrethiam chungin a ri leh ri lovin an chhiar thiam ang a, n tui pui pha tawh ang.
- 2) Hla thu chi hrang hrang a lam rik dan tur ang takin an chhiar thiam tawh ang.
- 3) Thu ziak engpawh nal tak leh ngaihthlak in takin an chhiar thiam tawh ang.

### Ziah thiam (Writing) :

- 1) Thupui thlan sa hmangin essay thu mal 200-250 an ziak thiam tawh ang.
- 2) An thu mal hriat tawhte dik takin an hmang thiam ang a, thu ziak zawm leh zawm loh turte pawh an thiam hle tawh ang.
- 3) Punctuation mark hrang hrang an hmang thiam tawh hle ang.
- 4) Mizo \awngkauchheh leh \awng upa hman tlanglawn deuhte hmangin thu an phuah thiam tawh ang.
- 5) Article-te pawh an ziak thiam tawh ang.
- 6) Lehkhathawn ngaihthlak in leh awmze nei takin a ziak thiam tawh ang.
- 7) Mahni chanchin (Autobiography) an ziak thiam ang.

### Thumal hriat (Vocabulary) :

1. Mizo \awng tluang pangngai thu mal an hre kim thawkhat tawh ang a, \awng un deuh pawh an hre viau tawh ang.

## CLASS - X : Grammar

- 1) Grammar portion hi zirlaiten an thiam tak tak theih nan a tawpah exercise dah tam ni se.
- 2) Literature - thu leh hlate hi uluk taka thlan chhuah ni se, Syllabus-a awm ang hi a theih chin chinah zawm ngei tum ni se.
- 3) Lemchan tawi (Drama) hi ngaihnawm tham deuh, \awngkam mawi leh \ha, literature lama hausa leh zirtir nei \ha bawk si thlan chhuah ni se.
- 4) | awng upate hi a hrilhfiahna bakah \awngkama hman dan entirna pakhat \heuh tal dah vek ni se.
- 5) Rapid reader atan hian thawnthu tawi \awngkauchheh hausa, zirtir nei \ha bawk si thlan chhuah ni se.

# ENGLISH

## CLASSES IX-X

### *Objectives :*

- To build greater confidence and proficiency in oral and written communication
- To develop the ability and knowledge required in order to exchange in independent reflection and inquiry
- To use appropriate English to communicate in various social settings
- To equip learners with essential language skills to question and to articulate their point of view
- To build competence in the different registers of English
- To develop sensitivity to, and appreciation of, other varieties of English, Indian Englishes, and the culture they reflect
- To enable the learner to access knowledge and information through reference skills (consulting a dictionary/thesaurus, library, internet etc)
- To develop curiosity and creativity through extensive reading
- To facilitate self-learning to enable them to become independent learners
- To review, organize and edit their own work and work done by the peers

By the end of the course, students should have acquired the skills of :

### **Reading:**

- read silently at varying speed depending on the purpose of reading
- adopt different strategies for different types of texts, both literary and non-literary
- read poems effectively (with proper rhythm and intonation)
- read and identify the main points/significant details of texts like scripts of audio-video interviews, discussions, debates etc.
- understands relations between different parts of a text through lexical and grammatical cohesion devices
- anticipate and predict what will come next in a text\*\*
- deduce the meaning of unfamiliar lexical items in a given context
- consult a dictionary to obtain information on the meaning and use of lexical items\*\*
- analyse, interpret, infer (and evaluate\*\*) the ideas in the text
- select and extract, from a text, information required for a specific purpose (and record it in note form)
- transcode information from verbal to diagrammatic form
- grasp the theme of the poem and appreciate the creative uses of language
- read extensively on their own

### **Writing :**

- express ideas in clear and grammatically correct English, using appropriate punctuation and cohesion devices
- write in a style appropriate for communicative purposes
- plan, organize and present ideas coherently by introducing, developing and concluding a topic
- write a clear description (e.g. of a place, a person, an object or a system)
- write a clear account of events (e.g. a process, a narrative, a trend or a cause-effect relationship)
- compare and contrast ideas and arrive at conclusions

- present an argument, supporting it with appropriate examples
- use an appropriate style and format to write letters (formal and informal), postcards, notices, messages, reports, articles and diary entries
- monitor, check and revise written work
- expand notes into a piece of writing
- summarise and make notes from a given text
- recode information from one text type to another (e.g. diary entry to letter; advertisement to report; diagram to verbal form)
- write an assessment of different points of view expressed in a discussion/debate

### **\*\* Listening :**

- adopt different strategies according to the purpose of listening (e.g. for pleasure, for general interest, for specific information)
- use linguistic and non-linguistic features of the context as clues to understanding and interpreting what is heard (e.g. cohesion devices, key words, intonation, gestures, background noises)
- listen to talk or conversation and understand the topic and main points
- listen for information required for a specific purpose e.g. in radio broadcast, commentaries, airport and railway station announcements
- distinguish main points from supporting details, and relevant from irrelevant information
- understand and interpret messages conveyed in person or by telephone
- understand and respond appropriately to directive language e.g. instruction, advice, requests and warning
- understand and interpret spontaneous spoken discourse in familiar social situations

### **\*\* Speaking :**

- speak intelligibly using appropriate word stress, sentence stress and intonation patterns
- adopt different strategies to convey ideas effectively according to purpose, topic and audience (including the appropriate use of polite expressions)
- narrate incidents and events, real or imaginary, in a logical sequence
- present oral reports or summaries, make announcements clearly and confidently
- express and argue a point of view clearly and effectively
- take active part in group discussions, showing ability to express agreement or disagreement to summarise ideas, to elicit the views of others, and to present own ideas
- express and respond to personal feelings, opinions and attitudes
- convey messages effectively in person or by telephone
- frame questions so as to elicit the desired response, and respond appropriately to questions
- participate in spontaneous discourse in familiar social situations

## **Grammar**

*By the end of the course, students should be able to use the following accurately and appropriately in context*

### **1. Verbs**

*Tenses :*

Present/past forms  
Simple/continuous forms  
Perfect forms  
Future time reference

*Modals :*

Active and passive voice  
Subject-verb concord  
non-finite verb forms (infinitives and participles)\*

### **2. Sentence Structure**

*Connectors*

*Types of sentences*

Affirmative/interrogative sentences  
Negation  
Exclamations

*Types of Phrases and Clauses\**

finite and non-finite subordinate clauses  
noun clauses and phrases  
adjective clauses and phrases  
adverb clauses and phrases

*Narration (Direct and Indirect speech)*

*Comparison\**

*Nominalisation\**

### **3. Other Areas**

- (i) determiners
- (ii) pronouns
- (iii) prepositions
- (iv) punctuation
- (v) synonyms/antonyms
- (vi) word order in sentence type

## **Literature**

*By the end of the course, students should be able to understand, interpret, evaluate and respond to the following features in a literary text:*

- 1. Character:** as revealed through appearance and distinguishing features, socio-economic background, action/events, expression of feelings, speech and dialogues
- 2. Plot/Story/Theme:** emerging through main events, progression of events and links between them, sequence of events denoting theme
- 3. Setting:** as seen through time and place, socio-economic and cultural background, people, beliefs and attitudes
- 4. Form:** rhyme, rhythm, simile, metaphor, alliteration, pun, repetition

*\* Objectives which will not be tested at Class IX level. They will, however, form the part of testing in Class X.*

*\*\*These objectives will not be tested in a formal examination*

# SCIENCE

## CLASS - IX

**Motion:** Distance and displacement, velocity; uniform and non-uniform motion along a straight line; acceleration, distance-time and velocity-time graphs for uniform and uniformly accelerated motion, equations of motion by graphical method; elementary idea of uniform circular motion

**Force and Newton's laws:** Force and motion, Newton's laws of motion, inertia of a body, inertia and mass, momentum, force and acceleration, elementary idea of conservation of momentum, action and reaction forces

**Gravitation and Floatation:** Gravitation; universal law of gravitation, force of gravitation of the earth (gravity), acceleration due to gravity; mass and weight; free fall, thrust and pressure, Archimedes' principle, buoyancy, elementary idea of relative density  
Work, Energy and Power Work done by a force, energy, power; kinetic and potential energy; law of conservation of energy

**Sound:** Nature of sound and its propagation in various media, speed of sound, range of hearing in humans; ultrasound; reflection of sound; echo and SONAR, structure of the human ear (auditory aspect only).

**Matter in Our Surroundings:** Definition of matter; Particle nature, solid, liquid and gas; characteristics - shape, volume, density; change of state-melting (absorption of heat), freezing, evaporation (Cooling by evaporation), condensation, sublimation.

**Is Matter Around Us Pure:** Elements, compounds and mixtures. Heterogenous and homogenous mixtures, colloids and suspensions.

**Atoms and Molecules:** atoms and molecules. Law of constant proportions. Atomic and molecular masses. Mole Concept, Relationship of mole to mass of the particles and numbers. Valency. Chemical formula of common compounds.

**Structure of the Atom:** Electrons, protons and neutrons; Isotopes and isobars.  
Cell - Basic Unit of life : Cell as a basic unit of life; prokaryotic and eukaryotic cells, mul-ticellular organisms; cell membrane and cell wall, cell organelles; chloroplast, mitochondria, vacuoles, ER, golgi apparatus; nucleus, chromosomes - basic structure, number.

**Tissues:** Structure and functions of animal and plant tissues (four types in animals; meri-stematic and permanent tissues in plants).

**Diversity in Living Organisms:** Diversity of plants and animals - basic issues in scientific naming, basis of classification. Hierarchy of categories / groups, Major groups of plants (salient features) (Bacteria, Thalophyta, Bryophyta, Pteridophyta, gymnosperms and Angiosperms). Major groups of animals (salient features) (Non-chordates upto phyla and chordates upto classes).

**Why Do We Fall I 11:** Health and its failure. Infectious and Non-infectious diseases, their causes and manifestation. Diseases caused by microbes (Virus, Bacteria and protozoans) and their prevention, Principles of treatment and prevention. Pulse polio programme.

Natural Resources: Air, Water, Soil. Air for respiration, for combustion, for moderating temperatures, movements of air and its role in bringing rains across India. Air, water and soil pollution (brief introduction). Holes in ozone layer and the probable damages. Bio-geo chemical cycles in nature; water, oxygen, carbon, nitrogen.

**Improvement in Food Resources:** Plant and animal breeding and selection for quality improvement and management; use of fertilizers, manures; protection from pests and diseases; organic farming.

## **PRACTICALS LIST OF EXPERIMENTS**

**1. To prepare**

- a) a true solution of common salt, sugar and alum
- b) a suspension of soil, chalk powder and fine sand in water
- c) a colloidal of starch in water and egg albumin in water and distinguish between these on the basis of
  - i) transparency
  - ii) filtration criterion
  - iii) stability

**2. To prepare**

- a) a mixture
  - b) a compound
- using iron filings and sulphur powder and distinguish between these on the basis of:
- i) appearance i.e., homogeneity and heterogeneity
  - ii) behaviour towards a magnet
  - iii) behaviour towards carbon disulphide a solvent.
  - iv) effect of heat.

**3. To study the extent of cooling caused by evaporation on the following liquids, using a thermometer. Also to arrange these liquids in the increasing order of the extent of cooling produced**

- i) Water
- ii) Alcohol
- iii) Ether

4. To verify laws of reflection of sound.

5. To determine the density of solid (denser than water) by using a spring balance and a measuring cylinder.

6. To establish the relation between the loss in weight of a solid when fully immersed in
  - i) tap water
  - ii) strongly salty water, with the weight of water displaced by it by taking at least two different solids.
7. To measure the temperature of hot water as it cools and plot a temperature-time graph.
8. To determine the velocity of a pulse propagated through a stretched string/slinky.
9. To prepare stained temporary mounts of (a) onion peel and (b) human cheek cells and to record observations and draw their labeled diagrams.
10. To identify parenchyma and sclerenchyma tissues in plants, striped muscle fibers and nerve cells in animals, from prepared slides and to draw their labeled diagrams.
11. To separate the components of a mixture of sand, common salt and ammonium chloride (or camphor) by sublimation.
12. To determine the melting point of ice and the boiling point of water.
13. To observe the onion peel cells placed in hypertonic solution under the microscope and draw labelled diagram of the same.
14. To study the characteristic of spirogyra/Agaricus, Moss/Fern, Pinus (either with male or female conre) and an Angiospermic plant. Draw and give two identifying features of groups they belong to.
15. To observe and draw the given specimens-earthworm, cockroach, bony fish and bird. For each specimen record
  - (a) one specific feature of its phylum
  - (b) one adaptive feature with reference to its habitat.

## CLASS – X

### 1. Natural Phenomena

Convergence and divergence of light. Images formed by a concave mirror; related concepts; centre of curvature; principal axis. Optic centre, focus, focal length. Refraction; laws of refraction.

Image formed by a convex lens; functioning of a lens in human eye; problems of vision and remedies. Applications of spherical mirrors and lenses.

Appreciations of concept of refraction; velocity of light; refractive index; twinkling of stars; dispersion of light. Scattering of light.

### 2. How things work.

#### Effects of Current

Potential, Potential difference, Ohm's law; Series combination of resistors, parallel combination of resistors; Power: dissipation due to current; Interrelation between P, V, I and R.

**Magnets:** Magnetic field, field lines, field due to a current carrying wire, field due to current carrying coil or solenoid; Force on current carrying conductor, Fleming's left hand rule. Electromagnetic induction. Induced potential difference, Induced current. Direct current. Alternating current; frequency of AC. Advantage of AC over DC. Domestic electric circuits.

### 3. Materials

#### Chemical Substances - Nature and Behaviour

**Acids, bases and salts:** General properties, examples and uses.

**Chemical reactions:** Types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, neutralization, oxidation and reduction in terms of gain and loss of oxygen and hydrogen.

**Metals and non-metals:** Brief discussion of basic metallurgical processes. Properties of common metals. Elementary idea about bonding.

**Carbon Compounds:** Carbon compounds, elementary idea about bonding.

Saturated hydrocarbons, alcohols, carboxylic acids (no preparation, only properties).

**Some Important chemical compounds:** Soap-cleansing action of soap.

**Periodic classification of elements:** Gradations in properties: Mendeleev periodic table.

### 4. The world of the living

#### Our environment

**Our environment:** Environmental problems, their solutions. Biodegradable, non- biodegradable, **Ozone depletion** **Life Processes:** "living" things; Basic concept of nutrition, respiration, transport and excretion in plants and animals.

**Control and Co-ordination in plants and animals:** Tropic movements in plants; Introduction to plant hormones; control and co-ordination in animals: voluntary, involuntary and reflex action, nervous system; chemical co-ordination : animal hormones.

**Reproduction :** Reproduction in plants and animals. Need for and methods of family planning. Safe sex vs HIV, AIDS. Child bearing and women's health.

**Heridity and evolution:** Heridity; Origin of life: brief introduction; Basic concepts of evolution.

## 5. Natural Resources

**Conservation of natural resources:** Management of natural resources. Conservation and judicious use of natural resources. Forest and wild life, coal and petroleum conservation. People's participation. Chipko movement. Legal perspectives in conservation and international scenario.

**The Regional environment:** Big dams: advantages and limitations; alternatives if any. Water harvesting. Sustainability of natural resources.

**Sources of energy:** Different forms of energy, leading to different sources for human use: fossil fuels, solar energy; biogas; wind, water and tidal energy; nuclear energy. Renewable versus non - renewable sources.

## PRACTICALS LIST OF EXPERIMENTS

1. To find the pH of the following samples by using pH paper/universal indicator.
  - i) Dilute Hydrochloric acid
  - ii) Dilute NaOH solution
  - iii) Dilute Ethanoic acid solution
  - iv) Lemon juice
  - v) Water
  - vi) Dilute Sodium Bicarbonate Solution.
2. To study the properties of acids and bases HCl & NaOH by their reaction with
  - i) Litmus solution (Blue/Red)
  - ii) Zinc metal
  - iii) Solid Sodium Carbonate
3. To determine the focal length of
  - a) Concave mirror
  - b) Convex lensby obtaining the image of a distant object.
4. To trace the path of a ray of light passing through a rectangular glass slab for different angles of incidence. Measure the angle of incidence, angle of refraction, angle of emergence and interpret the result.
5. To study the dependence of current (I) on the potential difference (V) across a resistor and determine its resistance. Also plot a graph between V and I.
6. To determine the equivalent resistance of two resistors when connected in series.
7. To determine the equivalent resistance of two resistors when connected in parallel.
8. To prepare a temporary mount of a leaf peel to show stomata.
9. To show experimentally that light is necessary for photosynthesis.
10. To show experimentally that carbon dioxide is given out during respiration.
11. To study (a) binary fission in Amoeba and (b) budding in yeast with the help of prepared slides.
12. To determine the percentage of water absorbed by raisins.

13. To prepare  $\text{SO}_2$  gas, observe its following properties and draw inferences in respect of
- odour
  - solubility in water
  - effect on litmus paper
  - action on acidified potassium dichromate solution.
14. a) To observe the action of Zn, Fe, Cu and Al metals on the following salt solutions,
- $\text{ZnSO}_4(\text{aq.})$
  - $\text{FeSO}_4(\text{aq.})$
  - $\text{CuSO}_4(\text{aq.})$
  - $\text{Al}_2(\text{SO}_4)_3(\text{aq.})$
- b) Arrange Zn, Fe, Cu and Al metals in the decreasing order of reactivity based on the above result.
15. To study the following properties of acetic acid (ethanoic acid):
- odour
  - solubility in water
  - effect on litmus
  - reaction with sodium bicarbonate

# SOCIAL SCIENCE

## CLASS – IX

### UNIT 1: INDIA AND THE CONTEMPORARY WORLD -1

40 Periods

THEMES	OBJECTIVES
<p>Any two themes from the first two sub-units and one from the third could be studied.</p> <p><b>Sub-unit 1.1: Event and Processes</b> In this unit the focus is on three events and processes that have in major ways shaped the Identity of the modern world. Each represents a different form of politics, and a specific combination of forces. One event is linked to the growth of liberalism and democracy, one with socialism, and one with a negative of both democracy and socialism.</p> <p><b>1. French Revolution</b> (a) The Ancient Regime and its crises. (b) The social forces that led to the revolution, (c) The different revolutionary groups and ideas of the time, (d) The legacy.</p> <p><b>2. Russian Revolution</b> (a) The crisis of Tzarism. (b) The nature of social movements between 1905 and 1917. (c) The First World War and foundation of Soviet state, (d) The legacy.</p> <p><b>3. Rise of Nazism</b> (a) The growth of social democracy (b) The crises in Germany, (c) The basis of Hitler's rise to power, (d) The ideology of Nazism, (d) The impact of Nazism.</p>	<ul style="list-style-type: none"> <li>• In each of the themes in this unit students would be made familiar with extracts of speeches, political declarations, as well as the politics of caricatures, posters and engravings. Students would learn how to interpret these kinds of historical evidences.</li> <li>• Familiarize students with the names of people involved, the different types of ideas that inspired the revolution, the wider forces that shaped it.</li> <li>• Show how written, oral and visual material can be used to recover the history of revolutions.</li> <li>• Explore the history of socialism through a study of the Russian Revolution</li> <li>• Familiarize students with the names of people involved, the different types of ideas that inspired the revolution.</li> <li>• Discuss the critical significance of Nazism in shaping the politics of modern world.</li> <li>• Familiarize students with the speeches and writings of Nazi leaders.</li> </ul>
<p><b>Sub-unit 1.2: Economies and Livelihoods</b> The themes in this section will focus on how different social groups grapple with the changes in the contemporary world and how these changes affect their lives.</p> <p><b>4. Pastoralists in the modern world</b> (a) Pastoralism as a way of life, (b) Different forms of pastoralism. (c) What happens to pastoralism under colonialism and modern states?</p>	<ul style="list-style-type: none"> <li>• Consider what happens to pastoralists and pastoralism in the modern world, with the formation of modern states, marking the boundaries, processes of sedentarization, contraction of pastures, and expansion of markets.</li> <li>• Point to the varying patterns of developments within pastoral societies in different places.</li> </ul>

THEMES	OBJECTIVES
<p>Case studies: Focus on two pastoral groups, one from Africa and one from India.</p> <p><b>5. Forest society and colonialism</b>            (a) Relationship between forests and livelihoods, (b) Changes in forest societies under colonialism.</p> <p>Case studies: Focus on two forest movements one in colonial India (Bastar) and one in Indonesia.</p>	<ul style="list-style-type: none"> <li>• Look at the impact of colonialism on forest societies, and the implication of scientific forestry.</li> <li>• Discuss the social and cultural world of forest communities through the study of specific revolts.</li> </ul>
<p><b>6. Farmers and peasants</b>            (a) Histories of the emergence of different forms of farming and peasant societies.            (b) Changes within rural economies in the modern world.</p> <p>Case studies: Focus on contrasting forms of rural change and different forms of rural societies (expansion of large-scale wheat and cotton farming in USA, rural economy and the Agricultural Revolution in England, and small peasant production in colonial India).</p>	<ul style="list-style-type: none"> <li>• Understand how oral traditions can be used to explore tribal revolts.</li> <li>• Show the different processes through which agrarian transformation may occur in the modern world.</li> <li>• Understand how agricultural systems in India are different from that in other countries.</li> <li>• Familiarize students with the idea that large scale farming, small scale production, shifting agriculture operate on different principles and have different histories.</li> </ul>
<p><b>Sub-unit 1.3: Cultures, Identity and Society</b>            The themes in this unit will consider how issues of culture are linked up to the making of contemporary world.</p> <p><b>7. Sports and politics</b>            (a) The story of cricket, (b) The emergence of cricket as an English sport, (c) Cricket and colonialism, (d) Cricket nationalism and de-colonialization.</p> <p><b>8. Clothes and cultures</b>            (a) A short history of changes in clothing.            (b) Debates over clothing in colonial India.            (c) Swadeshi and the movement for Khadi.</p> <p><b>Sub-unit 1.4: Map Work (2 marks)</b></p>	<ul style="list-style-type: none"> <li>• Suggest how sports also have a history and that it is linked up with the politics of power and domination.</li> <li>• Introduce students to some of the stories in cricket that have historical significance.</li> <li>• Show how clothing has a history, and how it is linked to questions of cultural identity.</li> <li>• Discuss how clothing has been the focus of Intense social battles.</li> </ul>

THEMES	OBJECTIVES
<p>1. India: Location, relief, - structure, major physiographic units.</p> <p>2. Climate: Factors influencing the climate; monsoon—its characteristics, rainfall and temperature distribution; seasons; climate and human life.</p> <p>3. Drainage: Major rivers and tributaries, lakes and seas, role of rivers in the economy, pollution of rivers, measures to control river pollution.</p> <p>4. Natural Vegetation: Vegetation types, distribution as well as altitudinal variation, need for conservation and various measures.</p> <p>5. Wildlife: Major species, their distribution, need for conservation and various measures.</p>	<p>To understand the major landform features and the underlying geological structure; their association with various rocks and minerals as well as nature of soil types.</p> <p>To identify the various factors influencing the climate and explain the climatic variation of our country and its impact on the life of the people. To explain the importance and unifying role of monsoons.</p> <p>To understand the river systems of the country and explain the role of rivers in the evolution of human society.</p> <p>To find out the nature of diverse flora and fauna as well as their distribution.</p> <p>To develop concern about the need to protect the bio-diversity of our country.</p>
<p>6. Population: Size, distribution, age-sex composition, population change—migration as a determinant of population change, literacy, healthy, occupational structure and national population policy; adolescents as under-served population group with special needs.</p> <p><b>7. Map Work</b> (4 marks).</p>	<p>To analyse the uneven nature of population distribution and show concern about the large size of our population;</p> <p>To understand the various occupations of people and explain various factors of population change;</p> <p>To explain various dimension of national policy and understand the needs of adolescents as underserved group.</p>

**Project/Activity**

Learners may identify songs, dances, festivals and special food preparations associated with certain seasons in their particular region, and whether they have some commonality with other regions of India.

Collection of material by learners on the flora and fauna of the region in which their school is situated. It should include a list of endangered species of the region and also information regarding efforts being made to save them.

**Poster**

River pollution

Depletion of forests and ecological imbalance.

THEMES	OBJECTIVES
<p><b>1. What is democracy? Why democracy?</b>                      What are the different ways of defining democracy? Why has democracy become the most prevalent form of government in our times? What are the alternatives to democracy? Is democracy superior to its available alternatives? Must every democracy have the same institutions and values?</p> <p><b>2. Designing of democracy in India.</b>                      How and why did India become a democracy? How was the Indian Constitution framed? What are the salient features of the Constitution? How is democracy being constantly designed and redesigned in India?</p> <p><b>3. Electoral politics in democracy</b>                      Why and how do we elect representatives? Why do we have a system of competition among political parties? How has the citizens' participation in electoral politics changed? What are the ways to ensure free and fair elections?</p>	<ul style="list-style-type: none"> <li>• Develop conceptual skills of defining democracy.</li> <li>• Understand how different historical processes and forces have promoted democracy.</li> <li>• Developing a sophisticated defence of democracy against common prejudices.</li> <li>• Develop a historical sense of the choice and nature of democracy in India.</li> <li>• Introduction to the process of Constitution making.</li> <li>• Develop respect for the Constitution and appreciation for Constitutional values.</li> <li>• Recognise that Constitution is a living document that undergoes changes.</li> <li>• Introduce the idea of representative democracy via competitive party politics.</li> <li>• Familiarise with our electoral system of reasons for choosing this.</li> <li>• Develop an appreciation of citizens' increased participation in electoral politics.</li> </ul>

THEMES	OBJECTIVES
<p><b>4. Institutions of parliamentary democracy</b> How is the country governed? What does Parliament do in our democracy? What is the role of President of India, the Prime Minister and the Council of Ministers? How do these relate to one another?</p> <p><b>5. Citizens' rights in democracy</b> Why do we need rights in a Constitution? What are the Fundamental Rights enjoyed by the citizen under the Indian Constitution? How does the judiciary protect the Fundamental Rights of the citizen? How is the independence of the judiciary ensured?</p>	<ul style="list-style-type: none"> <li>• Recognise the significance of the the Election Commission.</li> <li>• Provide an overview of central governmental structures.</li> <li>• Sensitise to the key role of the Parliament and its procedures.</li> <li>• Distinguish between nominal and real executive authorities and functions.</li> <li>• Understand the parliamentary system of executive's accountability to the legislature.</li> <li>• Develop a citizens' awareness of their rights.</li> <li>• Introduction to and appreciation of the Fundamental Rights.</li> <li>• Recognition of the ways in which these rights are exercised and denied in real life situations.</li> <li>• Introduction to judicial system and key institutions like the Supreme Court, High Courts and National Human Rights Commission.</li> </ul>

**UNIT 4: UNDERSTANDING ECONOMICS-I**

**40 Periods**

THEMES	OBJECTIVES
<p><b>1. The economic story of Palampur:</b> Economic transactions of Palampur and its interaction with the rest of the world through which the concept of production (including three factors of production) land, labour and capital can be introduced.</p> <p><b>2. People as resource:</b> Introduction of how people become resource/asset; economic activities done by men and women; unpaid work done by women; quality of human resource; role of health and education; unemployment as a form of non-utilisation of human resource; socio-political implication in simple form.</p>	<p>Familiarising the children with some basic economic concepts through an imaginary story of a village.</p> <p>Familiarisation of a few population related concepts and sensitization of child that people as asset can participate and contribute in nation building.</p>

THEMES	OBJECTIVES
<p><b>3. Poverty as a challenge facing India:</b> Who is poor (through two case studies, one rural one urban); indicators; absolute poverty (not as a concept but through a few simple examples)—why people are poor; unequal distribution of resources; comparison between countries; steps taken by government for poverty alleviation.</p> <p><b>4. Food security—Source of foodgrains:</b> Variety across the nation—famines in the past—the need for self sufficiency—role of the government in food security- Appreciate and critically look at the role of governments in food security—procurement government in ensuring food supply. of food grains—overflowing of granaries and people without food—public distribution system—role of cooperatives in food security (foodgrains, milk and vegetables, ration shops, cooperative shops, two-three examples of case studies)</p>	<p>Understanding of poverty as a challenge and sensitization of the learner;</p> <p>Appreciation of the government initiative to alleviate poverty.</p> <p>Exposing the child to economic issues which are basic necessities of life;</p> <p>Appreciate and critically look at the role of governments in food security—procurement government in ensuring food supply.</p>

**Suggested Activities/Instructions:**

**Theme I:** Give more examples of activities done by different workers and farmers. Numerical problems can also be included.

Some of the ways through which description of villages are available in the writings of Prem Chand, M.N. Srinivas and R.K. Narayan. They may have to be referred.

**Theme II:** Discuss the impact of unemployment

Debate on whether all the activities done by women should be included or not. Why? Is begging an economic activity? Discuss.

Is it necessary to reduce population growth or family size? Discuss.

**Theme III:** Visit a few farms in a village and collect the details of foodgrains cultivated.

Visit a nearby ration shop and collect the details of goods available.

Visit a regulated market yard and observe how goods are transacted and get the details of the places where the goods come and go.

**UNIT 5 : DISASTER MANAGEMENT**

**25 periods**

<p><b>1. Man made Disasters:</b> Nuclear, Biological and Chemical.  <b>2. Common Hazards:</b> Prevention and Mitigation.  <b>3. Community Based Disaster Management.</b></p>
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## CLASS - X

THEMES	OBJECTIVES
<p>Any two themes from the first two units and one from the third could be studied.</p> <p><b>Unit I: Events and Processes:</b></p> <p><b>1. Nationalism in Europe:</b>                      (a) The growth of nationalism in Europe after the 1830s. (b) The ideas of Giuseppe Mazzini, etc. (c) General characteristics of the movements in Poland, Hungary, Italy, Germany and Greece.</p>	<ul style="list-style-type: none"> <li>• The theme will discuss the forms in which nationalism developed along with the formation of nation states in Europe in the post-1830 period.</li> <li>• Discuss the relationship difference between European nationalism and anti-colonial nationalisms.</li> <li>• Point to the way the idea of the nation states became generalized in Europe and elsewhere.</li> </ul>
<p><b>2. Nationalist Movement in Indo China:</b>                      (a) French colonialism in Indo China.                      (b) Phases of struggle against the French, (c) The ideas of Phan Dinh Phung, Phan Boi Chau, Nguyen Ac Quoc.                      (d) The Second World War and the liberation struggle, (e) America and the Second Indo China War.</p>	<ul style="list-style-type: none"> <li>• Discuss the difference between French colonialism in Indo China and British colonialism in India.</li> <li>• Outline the different stages of the anti-imperialist struggle in Indo China.</li> <li>• Familiarize the students with the differences between nationalist movements in Indo China and India.</li> </ul>
<p><b>3. Nationalism in India: Civil Disobedience Movement</b>                      (a) First World War, Khilafat and Non-Cooperation.                      (b) Salt Satyagraha.                      (c) Movements of peasants, workers, tribals.                      (d) Activities of different political groups.</p>	<ul style="list-style-type: none"> <li>• Discuss the characteristics of Indian nationalism through a case study of Civil Disobedience Movement.</li> <li>• Analyze the nature of the diverse social movements of the time.</li> <li>• Familiarize students with the writings and ideals of different political groups and individuals.</li> </ul>
<p><b>Unit II: Economies and Livelihoods:</b></p> <p><b>4. Industrialisation 1850s-1950s:</b>                      (a) Contrast between the form of industrialisation in Britain and India.                      (b) Relationship between handicrafts and industrial production, formal and informal sectors.                      (c) Livelihood of workers. Case studies: Britain and India.</p>	<ul style="list-style-type: none"> <li>• Discuss two different patterns of industrialisation, one in the imperial country and another within a colony.</li> <li>• Show the relationship between different sectors of production.</li> </ul>
<p><b>5. Urbanization and Urban Lives:</b>                      (a) Patterns of urbanization.                      (b) Migration and the growth of towns.                      (c) Social change and urban life.                      (d) Merchants, middle classes, workers and urban poor.                      Case studies: London and Bombay in the nineteenth and twentieth century.</p>	<ul style="list-style-type: none"> <li>• Show the difference between urbanization in two different contexts. A focus on Bombay and London will allow the discussions on urbanization and industrialization to complement each other.</li> </ul>

THEMES	OBJECTIVES
<p><b>6. Trade and Globalization:</b>            (a) Expansion and integration of the world market in the nineteenth and early twentieth century.            (b) Trade and economy between the two Wars.            (c) Shifts after the 1950s.            (d) Implications of globalization for livelihood patterns. Case study: The post War International Economic order, 1945 to the 1960s.</p>	<ul style="list-style-type: none"> <li>• Show that globalization has a long history and point to the shifts within the process.</li> <li>• Analyze the implication of globalization for local economies.</li> <li>• Discuss how globalization is experienced differently by different social groups.</li> </ul>
<p><b>Unit III: Culture, Identity and Society</b></p> <p><b>7. Print Culture and Nationalism.</b>            (a) The history of print in Europe.            (b) The growth of press in nineteenth century India.            (c) Relationship between print culture, public debate and politics.</p>	<ul style="list-style-type: none"> <li>• The link between print culture and the circulation of ideas will be discussed.</li> <li>• Familiarize students with pictures, cartoons, extracts from propaganda literature and newspaper debates on important events and issues in the past.</li> </ul>
<p><b>8. History of the Novel:</b>            (a) Emergence of the novel as a genre in the west.            (b) The relationship between the novel and changes in modern society.            (c) Early novels in nineteenth century India.            (d) A study of two or three major writers.</p>	<ul style="list-style-type: none"> <li>• Show that forms of writing have a specific history, and that they reflect historical changes within society and shape the forces of change.</li> <li>• Familiarize students with some of the ideas of writers who have had a powerful impact on society.</li> </ul>

**UNIT 2: INDIA - RESOURCES AND THEIR DEVELOPMENT Total 50 Periods**

TOPICS	OBJECTIVES
<p><b>Resources:</b> Types-natural and human; Need for resource planning.  <b>Natural Resources:</b> land as a resource, soil formation, types and distribution; changing land-use pattern; land degradation and conservation measures.</p>	<p>To understand the value of resources and the need for their judicious utilisation and conservation.</p> <p style="text-align: right;"><b>Periods 8</b></p>
<p><b>Forest and Wildlife Resources:</b> Types and distribution, depletion of flora and fauna; conservation and protection of forests and wildlife.</p>	<p>To understand the importance of forests and wildlife in our environment as well as develop concern towards depletion of resources.</p> <p style="text-align: right;"><b>Periods 6</b></p>
<p><b>Agriculture:</b> Types of farming, major crops, cropping pattern, technological and institutional reforms; their impact; contribution of Agriculture to national economy-employment and output, food security, impact of globalisation.</p>	<p>To identify various types of farming and discuss the various farming methods;            To describe the spatial distribution of major crops as well as understand the relationship between rainfall regimes and cropping pattern; To explain various government policies for institutional as well as technological reforms since independence;            To understand the importance of agriculture in national economy.</p> <p style="text-align: right;"><b>Periods 10</b></p>
<p><b>Water Resources:</b> Sources, distribution, utilisation, multi-purpose projects, water scarcity, need for conservation and management, rainwater harvesting (One case study to be introduced).</p>	<p>To understand the importance of water as a resource as well as develop awareness towards its judicious use and conservation.</p> <p style="text-align: right;"><b>Periods 6</b></p>

THEMES	OBJECTIVES
<b>Mineral Resources:</b> Types of minerals, distribution, use and economic importance of minerals, conservation.	To discuss various types of minerals as well as their uneven nature of distribution and explain the need for their judicious utilisation; <b>Periods 5</b>
<b>Power Resources:</b> Types of power resources-conventional and non-conventional, distribution and utilization, and conservation.	To discuss various types of conventional and non-conventional resources and their utilization. <b>Periods 5</b>
<b>Manufacturing Industries:</b> Types, spatial distribution, contribution to industries to the national economy, industrial pollution and degradation of environment, measures to control degradation (One case study to be introduced).	To discuss the importance of industries in the national economy as well as understand the regional disparities which resulted due to concentration of industries in some area; To discuss the need for a planned industrial development and debate over the role of government towards sustainable development. <b>Periods 5</b>
<b>Transport, Communication and Trade</b>	To explain the importance of transport and communication in the ever shrinking world; To understand the role of trade in the economic development of a country and analyse the changing. <b>Periods 5</b>

**Project/Activity**

- Learners may collect photographs of typical rural houses, and clothing of people from different regions of India and examine whether they reflect any relationship with the climatic conditions and relief of the area.
- Learners may write a brief report on various irrigation practices in the village and the change in cropping pattern in the last decade.

**Posters**

- Pollution of water in the locality.
- Depletion of forests and the greenhouse effect.

**Note:** Any similar activities may be taken up.

## UNIT 3: DEMOCRATIC POLITICS II

THEMES	OBJECTIVES
<p><b>1. Working of Democracy</b>            Are divisions inherent to the working of democracy? What has been the effect of caste on politics and of politics on caste? How has the gender division shaped politics? How do communal divisions affect democracy?</p>	<ul style="list-style-type: none"> <li>• Analyse the relationship between social cleavages and political competition with reference to Indian situation.</li> <li>• Understand and analyse the challenges posed by communalism to Indian democracy.</li> <li>• Understand the enabling and disabling effects of caste and ethnicity in politics.</li> <li>• Develop a gender perspective on politics</li> </ul>
<p><b>2. Power Sharing Mechanisms in Democracy</b>            Why and how is power shared in democracies? How has federal division of power in India helped national unity? To what extent has decentralisation achieved this objective? How does democracy accommodate different social groups?</p>	<ul style="list-style-type: none"> <li>• Introduce students to the centrality of power sharing in democracies</li> <li>• Understand the working of spatial and social power sharing mechanisms</li> <li>• Analyse federal provisions and institutions</li> <li>• Understand the new Panchayati Raj institutions in rural and urban areas</li> </ul>
<p><b>3. Competition and Contestations in Democracy</b>            How do struggles shape democracy in favour of ordinary people? What role do political parties play in competition and contestation? Which are the major national and regional parties in India? Why have social movements come to occupy larger role in politics?</p>	<ul style="list-style-type: none"> <li>• Understand the vital role of struggles in the expansion of democracy.</li> <li>• Analyse party systems in democracies Introduction to major political parties in the country</li> <li>• Analyse the role of social movements and non-party political formations</li> </ul>
<p><b>4. Outcomes of Democracy</b>            Can or should democracy be judged by its outcomes? What outcomes can one reasonably expect of democracies? Does democracy in India meet these expectations? Has democracy led to development, security and dignity for the people? What sustains democracy in India?</p>	<ul style="list-style-type: none"> <li>• Introduction to the difficult question of evaluating the functioning of democracies</li> <li>• Develop the skills of evaluating Indian democracy on some key dimensions: development, security and dignity for the people</li> <li>• Understand the causes for continuation of democracy in India</li> </ul>

<p><b>5. Challenges to Democracy</b> Is the idea of democracy shrinking? What are the major challenges to democracy in India? How can democracy be reformed and deepened? What role can an ordinary citizen play in deepening democracy?</p>	<ul style="list-style-type: none"> <li>• Distinguish between sources of strength and weaknesses of Indian democracy</li> <li>• Reflect on the different kinds of measures possible to deepen democracy</li> <li>• Promote an active and participatory citizenship</li> </ul>
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#### UNIT 4: UNDERSTANDING ECONOMICS II

THEMES	OBJECTIVES
<p><b>Theme I: The Story of Development:</b> The traditional notion of development—National Income and Per-capita Income—Growth of NI—critical appraisal of existing development indicators (PCI, IMR, SR and other income and health indicators)—The need for health and educational development—Human development indicators (in simple and brief) as a holistic measure of development. The approach to this theme: Use case study of three states (Kerala, Punjab and Bihar) or take a few countries (India, China, Sri Lanka and one developed country)</p>	<ul style="list-style-type: none"> <li>• Familiarisation of some macroeconomic concepts</li> <li>• Sensitizing the child about the rationale for overall human development in our country, which include the rise of income, improvements in health and education rather than income.</li> <li>• It is necessary to raise questions in the minds of the children whether the increase in income alone is not sufficient for a nation?</li> <li>• How and why people should be healthy and provided with education.</li> </ul> <p style="text-align: right;"><b>Periods : 10</b></p>
<p><b>Theme II: Money and Financial System:</b> Role of money in an economy—Historical Origin; Formal and informal financial institutions for savings and credit—General Introduction; Select one formal institution such as a nationalized commercial bank and a few informal institutions—Local money lenders, landlords, self help groups, chit funds and private finance companies.</p>	<ul style="list-style-type: none"> <li>• Familiarize the concept of money as an economic concept;</li> <li>• Create awareness of the role of financial institutions from the point of view of day-to-day life.</li> </ul> <p style="text-align: right;"><b>Periods : 10</b></p>
<p><b>Theme III: The Role of Service Sector in Indian Economy:</b> What is service sector (through examples); Importance of service sector in generating employment and Income to the nation (with the help of a few case studies); Growth of service Sector in India; India as a major service provider to the world; The need for public investment the role of important infrastructure education and health</p>	<ul style="list-style-type: none"> <li>• To make aware of a major employment generating sector.</li> <li>• Sensitise the learner of how and why governments invest in such an important sector.</li> </ul> <p style="text-align: right;"><b>Periods : 10</b></p>

<p><b>Theme IV: Globalisation:</b> What is globalisation (through some simple examples); How India is being globalised and why — Development strategy prior to 1991 - State control of industries: Textile goods as an example for elaboration; Economic Reforms 1991; Strategies adopted in reform measures (easing of capital flows; migration, investment flows); Different perspectives on globalisation and its impacts on different sectors; Political Impacts of globalisation.</p>	<ul style="list-style-type: none"> <li>• Provide children some idea about how a particular economic phenomenon is influencing their surroundings and day-to-day life</li> </ul> <p style="text-align: right;"><b>Periods: 10</b></p>
<p><b>Theme V: Consumer Awareness:</b> How consumer is exploited (one or two simple case studies) — factors causing exploitation of consumers — Rise of consumer awareness — How a consumer should be in a market — Role of government in consumer protection</p>	<ul style="list-style-type: none"> <li>• Making the child aware of his or her rights and duties as a consumer;</li> <li>• Familiarizing the legal measures available to protect from being exploited in markets</li> </ul> <p style="text-align: right;"><b>Periods : 10</b></p>

**Suggested Activities/Instructions:**

Theme II:

Visit to banks and money lenders/pawnbrokers and discuss various activities that you have observed in banks in the classroom: Participate in the meetings of self help groups, which engaged in micro credit schemes in the locality of learners and observe issues discussed.

Theme IV:

Provide many examples of service sector activities. Use numerical examples, charts and photographs

Theme V:

Collect logos of standards available for various goods and services. Visit a consumer court nearby and discuss in the class the proceedings. Collect stories of consumer exploitation and grievances from news paper and consumers courts.

**Unit 5: Disaster Management**

**25 Periods**

- Tsunami
- Safer Construction Practices
- Survival Skills
- Alternate Communication Systems During Disasters
- Sharing Responsibility.

# MATHEMATICS

## CLASS - IX

### UNIT-I: NUMBER SYSTEM

#### Real numbers:

- Irrational number as non-terminating and non-repeating decimals (irrational numbers may be introduced by recalling rational numbers as terminating or non-terminating recurring decimals).
- Real numbers and the real number line. Surds and Rationalization of surds. Problems of proving a number to be irrational number should be avoided. Representing an irrational number on the number line should be avoided for numbers other than  $\sqrt{2}$ ,  $\sqrt{3}$  and  $\sqrt{5}$ .

#### Sets :

- Revision.
- Representation of sets, equal sets, subsets, power set, universal set.

### UNIT – II: COMMERCIAL MATHEMATICS

#### Compound Interest :

- Compound interest when the interest is compounded yearly and half-yearly.
- Rate of growth and depreciation. Conversion period not more than four (Rate should be 4%, 5% or 10%).

#### Ratio and Proportion :

- Ratio and proportion.
- Direct variation – simple and direct word problem.

#### Cost of Living Index :

- Cost of Living Index and its computation (weighted aggregate method only).

#### Sales tax :

- Computation of Sales Tax including inverse problems.

### UNIT -III: ALGEBRA

#### Polynomials:

- Definition of a polynomial in one variable, its coefficients, with examples and counter examples, its terms, zero polynomial.
- Degree of a polynomial. Constant, linear, quadratic, cubic polynomials; monomials, binomials, trinomials .
- Factors and multiples.
- Zeros / roots of a polynomial / equation. State and motivate the Remainder Theorem with examples and analogy to integers.
- Statement and proof of the Factor Theorem.
- Factorisation of  $ax^2 + bx + c$ ,  $a \neq 0$  where  $a$ ,  $b$ ,  $c$  are real numbers, and of cubic polynomials using the Factor Theorem.
- Recall of algebraic expressions and identities. Further identities of the type:  
 $(x + y + z)^2 = x^2 + y^2 + z^2 + 2xy + 2yz + 2zx$  ;  $(x \pm y)^3 = x^3 \pm y^3 \pm 3xy(x \pm y)$ ;  
 $x^3 \pm y^3 = (x \pm y)(x^2 \mp xy + y^2)$ ;  
 $x^3 + y^3 + z^3 - 3xyz = (x + y + z)(x^2 + y^2 + z^2 - xy - xz - yz)$  and their use in factorization of polynomials. Simple expressions reducible to these polynomials.

### **G.C.D. and L.C.M.**

- G.C.D. and L.C.M. of polynomials by factorisation.

### **Linear Equations in Two Variables :**

- Recall of linear equations in one variable.
- Introduction to the equation in two variables.
- Prove that a linear equation in two variables has infinitely many solutions, and justify their being written as ordered pairs of real numbers, plotting them and showing that they seem to lie on a line.
- System of linear equation in two variables.
- Solution of the system of linear equations by substitution method.
- Simple word problems.

## **UNIT-IV : GEOMETRY**

### **Lines and Angles:**

- 1. If two parallel lines are intersected by a transversal, then the pair of corresponding angles are equal.**
- 2. If two parallel lines are intersected by a transversal, then the pair of alternate angles are equal.**
- 3. Vertically opposite angles are equal.**
4. If a transversal intersects two lines in such a way that a pair of alternate angles is equal, then the two lines are parallel.
5. If a transversal intersects two parallel lines, then the interior angles on the same side of the transversal are supplementary.
6. If a transversal intersects two lines in such a way that a pair of interior angles on the same side of the transversal are supplementary, then the two lines are parallel.
7. Lines which are parallel to a given line are parallel to each other.
8. If a side of a triangle is produced, the exterior angle so formed is equal to the sum of the two interior opposite angles.

### **Triangles :**

1. Two triangles are congruent if any two sides and the included angle of one triangle are equal to any two sides and the included angle of the other triangle.
2. Two triangle are congruent if any two angles and the included side of one triangle are equal to any two angles and the included side of the other triangle.
3. Two triangles are congruent if the three sides of one triangle are equal to the three sides of the other triangle.
4. Two right triangles are congruent if the hypotenuse and a side of one triangle are respectively equal to the hypotenuse and a side of the other triangle.
5. The angles opposite to equal sides of a triangle are equal.
6. The sides opposite to equal angles of a triangle are equal.

### **Concurrent Lines in a Triangle :**

1. The angle bisectors of a triangle pass through the same point.
2. The perpendicular bisectors of the sides of a triangle pass through the same point.
3. Medians of a triangle pass through the same point which divided each of the medians in the ratio 2:1.
4. In a triangle, the three altitudes pass through the same point.

## **Quadrilaterals and Parallelograms :**

1. A quadrilateral is a parallelogram if a pair of its opposite sides is parallel and of equal length.
2. Diagonals of a rectangle are equal and bisect each other.
3. Diagonals of a rhombus bisect each other at right angles.
4. Diagonals of a square are equal and bisect each other at right angles.
5. In a triangle, the line segment joining the mid points of any two sides is parallel to the third side and is half of it.
6. The line drawn through the mid point of one side of a triangle parallel to another side bisects the third side.
7. Triangle inequalities and relation between 'angle and facing side'; inequalities in a triangle.

### **Area :**

1. Parallelograms on the same base and between the same parallels are equal in area.
2. Triangles on the same base and between the same parallels are equal in area.
3. If two triangles have equal areas and one side of the one triangle is equal to one side of the other then their corresponding altitudes are equal.

### **Constructions :**

1. Construction of a triangle given its base, sum of the other two sides and one base angle.
2. Construction of a triangle given its base, difference of the other two sides and one base angle.
3. Construction of a triangle of given perimeter and base angles.
4. Construction of a triangle given its two sides and a median corresponding to one of these sides.
5. Construction of a triangle equal in area to a given quadrilateral.
  - (i) Proofs of constructions not required.
  - (ii) Constructions using ruler and compasses only.

### **Circles :**

Through examples, arrive at definitions of circle related concepts, radius, circumference, diameter, chord, arc, subtended angle.

1. Two circles are congruent if and only if they have equal radii.
2. Equal chords of a circle subtend equal angles at the centre.
3. If the angles subtended by the chords at the centre (of a circle) are equal, then the chords are equal.
4. The perpendicular from the centre of a circle to a chord bisect the chord and its converse.
5. There is one and only one circle passing through three given non-collinear points.
6. Equal chords of a circle are equidistant from the centre.
7. The chords of a circle which are equidistant from the centre are equal.

## **UNIT-V : COORDINATE GEOMETRY**

- The Cartesian plane.
- Co-ordinates of a point, names and terms associated with the coordinate plane, notations, plotting points in the plane, graph of linear equations as examples.

- Focus on linear equations of the type  $ax+by+c=0$  by writing it as  $y=mx+c$  and linking with the chapter on linear equations in two variables.

## **UNIT - VI: TRIGONOMETRY**

### **Trigonometric ratios :**

- Formation of angles through rotation of a ray.
- Idea of positive and negative angles.
- Trigonometric ratios of an acute angle of a right angled triangle. Trigonometric ratio of 0,30,45,60,90.
- Given a trigonometric ratio, to find all other trigonometric ratios.
- Given a side and an angle of a right triangle, to find other sides and angles.

### **Trigonometric Identities :**

- Very simple identity proof of trigonometric ratios.

## **UNIT - VII: MENSURATION**

### **Areas :**

- Area of a triangle using Hero's formula (without proof) and its application in finding the area of a quadrilateral.

### **Surface Areas and Volumes :**

- Concept of surface area.
- Surface areas and volumes of cubes, cuboids, spheres (including hemispheres) and right circular cylinders/cones.

## **UNIT-VIII: STATISTICS AND PROBABILITY**

### **Statistics :**

- Introduction to statistics.
- Collection of data, presentation of data – tabular form, ungrouped/ grouped, bar graphs, histograms (with varying base lengths), frequency polygons.
- Mean, median, mode of ungrouped data.

### **Probability:**

- History, repeated experiments and observed frequency approach to probability. Focus is on empirical probability. (A large amount of time to be devoted to group and to individual activities to motivate the concept; the experiments to be drawn from real-life situations, and from example used in the chapter on statistics).

## CLASS X

### UNIT I COMMERCIAL MATHEMATICS

#### Instalments:

- Instalments payments and instalments buying (number of instalment should not be more than 2 in case of buying) (Only equal instalments should be taken. In case of payments through equal instalments, not more than three instalments should be taken).

### UNIT II TIME, DISTANCE AND WORK

- Solution of problems based on time, work and distance.

### UNIT III ALGEBRA

#### Polynomials :

- Zeros of a polynomial. Relationship between zeros and co-efficients of a polynomial with particular reference to quadratic polynomials.
- HCF and LCM to be included.
- Rational Expressions.

#### Linear Equation in Two Variables :

- System of linear equation in two variables.
- Solution of the system of linear equations - (i) Graphical Method (ii) By Algebraic Methods:
  - (a) Elimination by substitution method
  - (b) Elimination by equating the co-efficients
  - (c) Cross multiplication
- Linear equation in two variables in solving simple problems from different areas.

#### Quadratic Equations :

- Standard form of quadratic equation  $ax^2 + bx + c = 0$ , ( $a \neq 0$ ). Solution of  $ax^2 + bx + c = 0$  by (i) factorisation (ii) quadratic formula.
- Application of quadratic equations in solving word-problems from different areas.
- Relationship between discriminant and nature of roots. ( Problems related to day-to-day activities to be incorporated).

#### Arithmetic Progression (AP):

- Introduction to AP by pattern of number.
- General term of an AP, sum to n-terms of an AP.

#### Sets :

- Revision.
- Venn Diagrams (not more than three sets).
- Complement of a set, operations on sets (union, intersection and difference of two sets)

### UNIT – IV GEOMETRY

#### Triangles :

- Definitions, examples, counterexamples of similar triangles.
1. ( Prove) If a line is drawn parallel to one side of a triangle to intersect the other two sides in distinct points, the other two sides are divided in the same ratio.

2. (Motivate) If a line divides any two sides of a triangle in the same ratio, then the line is parallel to the third side.
3. (Motivate) Prove that the internal bisector of an angle of a triangle divides the opposite side internally in the ratio of the sides containing the angle.
4. (Motivate) If in two triangles, the corresponding angles are equal, their corresponding sides are proportional and the triangles are similar.
5. (Motivate) If in two triangles, the corresponding angles are equal, then their corresponding sides are proportional and hence the triangles are similar.
6. (Motivate) If the corresponding sides of two triangles are proportional, their corresponding angles are equal and the two triangles are similar.
7. (Motivate) If one angle of a triangle is equal to one angle of another triangle and the sides including these angles are proportional, the two triangles are similar.
8. (Motivate) If a perpendicular is drawn from the vertex of the right angle to the hypotenuse, the triangles on each side of the perpendicular are similar to the whole triangle and to each other.
9. (Prove) The ratio of the area of two similar triangles is equal to the ratio of the squares on their corresponding sides.
10. (Prove) In a right triangle, the square on the hypotenuse is equal to the sum of the squares on the other two sides.
11. (Motivate) In a triangle, if the square on one side is equal to sum of the squares on the other two sides, the angles opposite to the first side is a right triangle.

### **Circles :**

1. (Motivate) If two arcs of a circle are congruent, their corresponding chords are equal and its converse.
2. (Prove) The angles subtended by an arc at the centre is double the angle subtended by it at any point on the remaining part of the circle.
3. (Prove) The angle in a semi circle is a right angle.
4. (Motivate) Converse of 3.
5. (Prove) Angles in the same segment of a circle are equal.
6. (Motivate) If a line segment joining two points subtends equal angle at other two points lying on the same side of the line containing the segment, the four points lie on a circle.
7. (Prove) The sum of either pair of the opposite angles of a cyclic quadrilateral is  $180^\circ$ .
8. (Prove) Converse of 7.
9. (Prove) The tangent at any point of a circle is perpendicular to the radius through the point of contact.
10. (Prove) The lengths of tangents drawn from an external point to a circle are equal.
11. (Prove) If two chords of a circle intersect inside or outside a circle, then the rectangle formed by two parts of one chord is equal in area to the rectangle formed by the two parts of the other.
12. (Prove) If a line touches a circle and from the point of contact a chord is drawn, the angles which this chord makes with the given tangent are equal respectively to the angles formed in the corresponding alternate segments.

### **Constructions :**

1. Division of a line segment in a given ratio (internally).

2. Construction of tangents to a circle (i) At a point on it without using the centre. (ii) At a point on it using the centre. (iii) From a point outside it. [(i) Proofs of constructions not required. (ii) Constructions using ruler and compasses only].
3. Construction of a triangle similar to a given triangle.
4. Construction of a triangle, given its base, vertical angle and either altitude or median through the vertex.

## UNIT-V CO-ORDINATE GEOMETRY

### Co-ordinate Geometry :

- Review the concepts of coordinate geometry done earlier including graphs of linear equations. Awareness of geometrical representation of quadratic polynomials.
- Distance between two pairs and section formula (internal). Area of a triangle.

## UNIT VI TRIGONOMETRY

(a) Proving simple identities based on the following:(proofs not required)

- (i)  $\sin^2 A + \cos^2 A = 1$
- (ii)  $\sec^2 A = 1 + \tan^2 A$
- (iii)  $\operatorname{cosec}^2 A = 1 + \cot^2 A$

(b) Trigonometric ratios of complementary angles:

- (i)  $\sin (90^\circ - A) = \cos A$
- (ii)  $\cos (90^\circ - A) = \sin A$
- (iii)  $\tan (90^\circ - A) = \cot A$
- (iv)  $\operatorname{cosec} (90^\circ - A) = \sec A$
- (v)  $\cot (90^\circ - A) = \tan A$
- (vi)  $\sec (90^\circ - A) = \operatorname{cosec} A$

(c) Problems based on above.

### Heights and Distances :

- Simple problems on heights and distances.
  - (i) Problems should not involve more than two right triangles.
  - (ii) Angles of elevation/depression should be only  $30^\circ$ ,  $45^\circ$ ,  $60^\circ$

## UNIT - VII MENSURATION

### Areas Related to Circle :

- Motivate the area of a circle; area of sectors and segments of a circle.
- Problems based on areas and perimeter/circumference of circles. (In calculating area of segment of a circle, problems should be restricted to central angle of  $60^\circ$ ,  $90^\circ$  and  $120^\circ$  only).

### Surface Areas and Volumes :

- Problems on finding surface areas and volumes of combinations of any two of the following-cubes, cuboids, spheres, hemispheres and right circular, cylinders/ cones. Frustum of a cone.
- Problems involving converting one type of metallic solid into another and other mixed problems. (Problems with combination of not more than two different solids be taken).

## **UNIT - VIII    STATISTICS AND PROBABILITY**

### **Mean :**

- Mean of grouped data. (Calculation by taking assumed mean should also be discussed).
- Median and mode of grouped data.

### **Probability:**

- Elementary idea of probability as a measure of uncertainty ( for single event only)

### **Pictorial representation of data :**

- Reading and construction of pie chart (sub parts of pie chart should not exceed five. Central angle should be in multiples of 5 degrees).

# PHYSICAL AND HEALTH EDUCATION

## RATIONALE

Health and Physical education is concerned with total health of the learner and the community. Besides physical health, it includes mental and emotional health of the learners. WHO defines health as a state of physical, mental and social well-being and not merely the absence of disease or infirmity. The aim of Health and Physical Education is to enable the student to attain such a state of health that, it becomes an education for the total human being.

In this respect, it is a truism to say that the practice of healthy living will serve as the foundation for physical education. It is envisaged that any effort to promote aesthetic values at the school level will include a natural esteem for physical well-being. The mastery of the body, its powers and qualities, requires knowledge, methodical training and exercise. The skills and capacities developed, the muscles and nerves trained, the senses cultivated and hygienic and proper dietary habits inculcated. Therefore, provision has to be made much more systematically than before, in the school curriculum for Health and Physical Education. At the Secondary level acquisition of the habits of healthy living and participation in games and sports and athletics for the neuro muscular coordination and physical fitness are the aims which should be taken care of while developing any syllabus of health and physical education.

The objectives of **Physical and Health Education** are :

- to bring the overall awareness of values and to inculcate among students the desired habits and attitudes towards health and to raise their health status;
- to make the pupils physically, mentally and emotionally fit and to develop their personal and social qualities that will help them to be good human beings;
- to develop a scientific point of view regarding health and physical education;
- to identify personal, family and community health problems and acquire relevant scientific knowledge and information to prevent and control these problems to stay healthy;
- to take action individually and collectively to protect and promote (i) their own health (ii) health of their family members: and (iii) health of those around them in the community, seeking help when required from available community resources;
- to promote improved preventive and promotive self-care behaviour in the families and in the community;
- to develop awareness of HIV, AIDS and drug abuse in the community;
- to develop an awareness regarding the importance of physical fitness and organic efficiency in individual and social life;
- to develop awareness regarding transfer of fundamental processes to physical activities of one's choice;
- to develop interest in exercise, sports and games for self-satisfaction and making it a part of life;
- to enable an individual to enhance inner qualities - as self-mastery, discipline, courage, confidence and efficiency;
- to enable an individual to display a sense of responsibility, patriotism, self-sacrifice and service to the community in a better way;
- to develop awareness of the importance of self-defense and self-dependence;
- to develop awareness of good posture so that one may strive to maintain a good posture;
- to enable an individual to lead an enthusiastic and active life;
- to enable an individual to practice socially acceptable behavior patterns in an impressive manner.

## **Learning Outcomes**

The syllabus in Physical and Health Education at this stage at realising the following:

### **(I) Learning outcomes in Physical Education :**

- The learners develop organic fitness, formal sense organs and efficient organic systems,
- They cultivate habits of engaging in appropriate exercises so that immediate and future health needs will be met.
- They develop neuro-muscular skills that promote the ability to perform work with ease and grace.
- They develop attitudes of cooperation, good sportsmanship and fair-play.
- They cultivate such traits of character as self-mastery, discipline, courage and confidence.
- They develop a sense of patriotism, self-sacrifice, self-reliance and a desire to serve.
- They prepare themselves for making a worthy use of leisure time by acquiring knowledge of sports for the purpose of participation or observing, appreciating and enjoying them.

### **(II) Suggestive Activities :**

- Dance
- Sports and Games (including training/coaching)
- Athletics
- Gymnastics
- Swimming
- Combative / Martial Arts

### **(III) Learning outcomes in Health Education**

- The learners develop a scientific point of view of health and physical education.
- They identify personal, family and community health problems and are able to prevent and control these problems to stay healthy.
- They take action individually and collectively to protect and promote their own health, health of family and of the people around them in the community.
- They are always ready to promote improved preventive and promotive self-care behaviour in the family and in the community.

### **(IV) Suggestive Areas :**

- Meaning and Nature of Health
- Environment and Health
- Major accidents, which can be fatal in rural and urban areas. First Aid.
- Nutrition.
- Health hazards of modernization: drug abuse, HIV and AIDS.
- Communicable and non-communicable diseases. Approved systems of medicine being practiced in our country.
- Importance of International Health, Physical Education activities are dependent upon the facilities available in and around the school. Therefore the teacher should develop programmes taking into consideration the facilities available in the school and in the community.

# WORK EXPERIENCE

## RATIONALE

In the new curriculum framework (2000) work experience has been termed as work education and thus makes it an integral component of education. As such it would provide both knowledge and skills through well-structured and graded programmes, which would help them on their entry into the world of work. Work education is a distinct curricular area for providing children with opportunities for participation of social and economic activities inside and outside the classroom, which would enable them to understand scientific principles and procedures involved in different types of work. The productive manual work situations were to be drawn from the area of health and hygiene, food, shelter, clothing, recreation and community service. The competencies to be developed in this field should include knowledge, understanding, practical skills and values through need based life activities. Pre-vocational courses should get a prominent place at this stage.

Work education aims at restoring dignity and respect to all types of manual work, promoting self-reliance in meeting one's daily needs and those of one's family and community, increasing productivity through the development of proper work skills and values, and promoting commitment to the welfare of the society through suitable programme of social work or community service.

## *Objectives*

The major objectives of work education at the Secondary stages are:

- \* To help the pupils to develop essential knowledge and understanding in terms of :
  - identifying needs of the self, family and community in respect of food, health and hygiene, clothing, shelter, recreation and social service.
  - acquainting themselves with productive activities in the community;
  - understanding facts and scientific principles involved in various forms of work;
  - knowing the sources of raw materials and understand the use of tools and equipment in the production of goods and services; understanding the utility of productive work and services to the community;
  - understanding the needs of a technologically advancing society in terms of productive processes and skills;
  - understanding the processes of planning and organization of productive work;
  - conceptualizing their role in productive situations;
  - developing abilities for self-evaluation of performance and for entrepreneurship.
- \* To help the pupils to develop skills:
  - for the selection, procurement, arrangement and use of tools and materials for different forms of productive work;
  - to observe, manipulate and participate in work practice;
  - for the application of problem-solving methods in productive work and social service institution.
  - for greater productive efficiency.
  - to enhance their working competence sufficiently so as to enable them to earn while they learn;
  - to use their creative faculties for devising innovative methods and materials.
- \* To help the pupils to develop proper attitude and values in terms of:
  - respect for manual work and regard for manual workers;
  - socially desirable values such as self-reliance, helpfulness, cooperativeness, teamwork, perseverance, tolerance, etc;

- proper work ethics such as regularity, punctuality, honesty, dedication, discipline, etc;
- self-esteem through achievement in productive work and services;
- a deeper concern for the environment and a sense of belonging, responsibility and commitment for the society;
- strive for excellence.

### ***Course Content***

The content of work education comprises two parts i.e. 'Essential Activities' for the satisfaction of day-to-day needs of the pupils, their families and communities and an Elective Programme of productive work and services, which would result in some remuneration in cash or kind. The component of productive work practice through 'Elective Activities' is most important at this stage and is, therefore, to be assigned a weightage of 70 percent of the school time-table. However, the actual selection of activities/projects/prevocational courses by school would depend upon the availability of natural, physical and human resources in the locality, the socio-economic background of the community and the needs and interests of the pupils.

### ***Essential Activities***

List of activities for the secondary School stage is given below :

- Use of bus, railway, air time-table etc.
- Milking of dairy animals and managing allied activities.
- Help in preparation and distribution of mid-day meal/snacks in composite schools.
- Preparation of toys and other play materials for self and primary classes.
- Helping school authorities in organizing exhibitions, picnics, tours and excursions, school functions etc., and then presenting report on that.
- First aid activities like counting of pulse, taking of temperature and bandaging of wounds after cleaning them.
- Helping traffic police in the regulation of traffic.
- Plantation of shady/fuel/ornamental/avenue trees.
- Preparation of family budget and maintenance of daily household accounts.
- Acquaintance with common fertilizers and pesticides and their application with appropriate equipment.
- To be able to make efforts to know and procure transport facilities from one point to another in cooperation with Panchayat.
- Acquaintance with common pests and plant diseases and use of simple chemical and plant protection equipment.
- Handling farm animals for feeding, washing or general examination.
- Studying the nutrition and health status of people in a village/city/slum/tribal area.
- Helping in community health programmes for enhancing the nutrition, health and environmental status of the community through door-to-door contact programmes.
- Participation in adult literacy programme.
- Helping in child-care in creches.
- Volunteer work in hospitals and fairs, during natural disasters and accident etc.

### ***Elective Activities***

Work practice at this stage is to take the form of projects with sequential activities in respect of vocations in the production or service sectors. Intensive projects/prevocational courses in diverse need and occupational areas, to be pursued over a span of time ranging from a few months to the entire two-

years duration of the Secondary stage, are clearly the answer for this requirement. Such projects/prevocational courses are intended to lead to intensive skill formation and proficiency in work which would be conducive to increased productivity and capacity on the part of pupils to engage in work which enables them to earn while they learn. This emphasis on intensive skill formation is meant to provide a prevocational base to the work education programme at this stage and also to serve as ground preparation for the world for those pupils who terminate their studies after Class X. For those who continue their education at the higher Secondary Stage, these prevocational courses will serve as preparation for vocational courses at the +2 stage. A tentative list of such projects/prevocational courses is given below.

- Raising of flowers, vegetables, plant and their seedlings in nurseries.
- Repair and maintenance of equipment for plant protection.
- Prefabrication of irrigation channels.
- Development of plants by vegetative propagation-budding, grafting, cutting, layering etc.
- Raising poultry birds (1) for eggs, (2) for table purposes.
- Making bakery and confectionery products.
- Food preservation-making of jam, jelly, tomato ketchup, pickles.
- Projects relating to non-conventional sources of energy-sun, wind, tides, biogas, etc.
- Bee-keeping, bottling and marketing of honey.
- Silk worm rearing for sale or yarn-making.
- Mushroom cultivation for consumption, preservation or sale.
- Cookery skills.
- Fish rearing in small ponds.
- Post-harvest technology and safe storage of food grains.
- Use of bacterial fertilizers.
- Preparation of milk products.
- Plant protection against pest and diseases.
- Soil testing and reclamation measures.
- Preparation of stationery items such as files, file boards, registers, writing pads, stamping ink, etc.
- Tying and dyeing and screen printing as commercial ventures.
- Garment making.
- Repair and maintenance of domestic electrical gadgets.
- Preparing electric extension boards for use in home/school or for sale.
- Photography-commercial.
- Plumbing.
- Preparing paper out of waste paper.
- Preparation of decoration pieces of a more sophisticated nature out of plaster of paris.
- Mat and carpet weaving.
- Doll making.
- Hand embroidery.
- Typewriting with adequate proficiency.
- Stenography.
- Running a cooperative store.
- Running a students bank.
- Running a book bank.
- Caning, carpentry and handling the job of a mason.
- Cycle, scooter repairing.
- Computer operation & maintenance (surfing, accessing internet, e-mail)

- Photocopying.
- Screen-printing.
- PCO (fax).
- Maintenance of farm equipments and machines.
- NCC, NSS, Scouting and Guiding.

Out of the list of Elective Activities suggested above, each pupil is to select one or two activities/projects from different areas of human needs such as food, health and hygiene, clothing, shelter, recreation and community service. The number of elective courses to be selected would depend upon the total number of periods required for their performance which should not exceed 120.

# ART EDUCATION

## RATIONALE

Art education constitutes an important area of curricular activity for the development of the wholesome personality of the learners. Art is a process of fulfilment running through every aspect of life and it goes on in a creative, productive and joyful manner. Art education helps to explore various means of communication (verbal and non-verbal). It encourages to develop creative expression and sharpens senses through keen observation of the environment. It helps to discover preferences through exposition to variety of material and identify the personal form and style of expression. It develops awareness of various art forms in and around the environment and locality and develops skills in the use of various tools, instruments and other art materials in the process of experimentation and exploration. In the process of discovering space, organization, colours, forms, lines, texture, movement, sound etc., learners develop a sense of organization and a sense of design which inculcates in them a sense of order with regard to their personal appearance, home, school and community. It also develops aesthetic sensibilities and respect for social values and cultural heritage.

The idea of creative art involves all the elements of commonly known art forms-visual, performing and language arts, namely music, dance, drama, drawing and painting, modelling and sculpture, or construction work, pottery and ceramic work, poetry and creative writing and other art-connected craft forms.

## OBJECTIVES

The objectives of art education are to :

- help the student to consolidate past experiences and knowledge;
- introduce the student to new media and techniques and their use for creative expression and for making objects of common use;
- provide opportunities for the development of awareness about folk arts, local specific arts and other cultural components leading to an awareness and appreciation of national heritage;
- help the student to use artistic and aesthetic sensibility in day-to-day life situation;
- help the student to achieve a balanced growth as a social being in tune with our culture through projects on natural and cultural heritage etc;
- get acquainted with the life and work of the local artists/artistes;
- develop creative expression through locally available material with the help of the community;
- refine the sense of appreciation of the beauty of nature and the basic elements of art forms;

## APPROACH TO ART ACTIVITIES

At the secondary stage, art education is closer to the local folk art and craft and folk theatre. Art is not only to always blindly copy the old masters or copying the teacher's work in a rigid manner but to help learners express themselves in creative and imaginative ways. Creative arts cannot be a substitute of Work Education under which a few artistic activities may be conducted but the approach and product would be different.

In the interest of the learner, as far as possible, all the media of creative arts may be placed before the students for their choice of selection in one form of art or in a combination of art forms. These are:

## **VISUAL ARTS**

- Two-dimensional or Pictorial
  - Drawing and Painting
  - Collage Making
  - Printing Making
  - Photography
  - Computer graphics (Wherever possible)
- Three-dimensional
  - Clay modelling and pottery
  - Carving and sculpture
  - Construction

## **PERFORMING ARTS**

- Music (Vocal, Instrumental)
- Movement and Dance
- Creative Drama and Puppetry
- Creative Writing and Poetry

## **SOURCES FOR ART TEACHING**

The arts programme in schools must reflect the ethos of the region. Artistic expression in music, poetry, dance theater and in the creation of forms have been part of human life from the very beginning. It is not something new and strange - it is an integral part of human existence. Exposure to the local environment and arts in an essential activity of the school art programme.

Besides individual expression, the arts provide an opportunity to study and appreciate the contributions made in the past and present. By learning to appreciate music, painting, dance and theatre, one develops aesthetic sensibility and sensitivity to a better understanding of people belonging to other cultures. We can build a harmonious society, a productive nation or world itself with a deep sense of appreciation. For this, it would be necessary that the arts programme in school makes the child familiar with the tradition of arts of the region. From the strength and confidence gained from the familiar, it will be possible for him/her to respect and appreciate the culture and contribution made by others.

It is not always the sophisticated materials and expertise resources which matter for some sort of creative programme in schools—it is the understanding of the approach to the creative arts (for which the skills develop automatically) and the satisfaction of working and playing with children are of utmost importance. Locally available material can be used for creative expression. Help of the experts from the community can be taken.

# INTRODUCTORY INFORMATION TECHNOLOGY

Computer has permeated in every walk of life. MBSE has included the subject INTRODUCTORY INFORMATION TECHNOLOGY as an additional (optional) at the secondary level. This subject offers scope for computer-added learning. It also facilitates developing a generation of knowledge workers.

## Learning Objectives

### General:

1. To familiarize with basics of information technology
2. To develop basic skills of using tools for word processing, presentation and database management
3. To appreciate use of IT in various domains.

### Specific

1. Cognitive domain: Knowledge and understanding, To develop basic understanding of IT system operations and information accessing tools
2. Psychomotor domain: Skills, To develop skills in using tools of word processor, to manage data base, to make graphs, to analyses reports using spreadsheets and to develop web pages.
3. Affective domain: Personality traits To develop habit of teamwork and structured presentation.

## CLASS IX

### Unitwise Periods/weightage-theory and Practicals

<i>Unit</i>	<i>Topic</i>	<i>Marks</i>	
		<i>Theory</i>	<i>Practical</i>
<b>1</b>	<b>IT Basic</b>	10	00
<b>2</b>	<b>IT Tools</b>	30	30
	Windows		
	MS-Office		
	*MS- Word		
	*MS-Power Point		
	*MS-Excel		
<b>3</b>	<b>IT Application</b>	00	30
	<i>Total</i>	<b>40</b>	<b>60</b>

**One paper**

**Time: 2 hours**

**Marks: 40**

## THEORY

### Unit 1 : IT BASICS

Convergence of Technologies:

### Computer System:

Characteristics of a computer, Basic applications of a computer, Components of a computer system Central processing Unit (CPU), Visual Display Unit (VDU), Keyboard,

**Concept of Memory :**

Primary and Secondary Memory, RAM and ROM, Units of Memory-Byte, Kilobyte, Megabyte, Gigabyte, Terabyte Input/Output Devices:  
Mouse, Joy Stick, Scanner, Microphone, OCR, MICR, Light pen, Bar code Reader, Digital Camera, Printer, Speaker, Plotter.

**Storage Devices :****Computer languages :**

Machine Language, Assembly Language and High level Languages, Role of assembler and Compiler.

**Types of software :**

System, utility and Application software with examples

**Communication Technology :**

Need for networking, LAN, MAN, and WAN

**Data Communication Device:** Modem,

**Introduction to Internet.****Content:**

Data, Information and multimedia;

**UNIT 2 : IT TOOLS****MS-Windows:**

Basic concept of an Operating System and its functions.

**Introduction of Windows :** Using Mouse and moving icons on the screen, My Computer, Recycle Bin, Task Bar, Start-menu and menu selection, running an application, Setting system date and time; Windows Explorer to view files, folders and directories, creating and renaming of files and folder, Opening and Closing of Windows, Minimise, Restore and Maximise forms of windows, Basic components of a Window: Desktop, Frame, Title Bar, Menu Bar, Status Bar, Scroll Bars (Horizontal and Vertical), Using right button of the Mouse, Creating Shortcut, Basic Windows Accessories: Notepad, Paint, Calculator, Wordpad, using Clipboard; .

**MS - OFFICE:****MS Word:**

Introduction to a Word Processor, Creating and Saving a document, Editing and formatting a Document; Text Style (B, I.U.), Font Type Size, changing color, alignment of text; Formatting paragraphs with line or paragraph spacing; adding headers and footers numbering pages, using grammar and spell check utilities, using subscript and superscript, inserting symbols, Print Preview, printing a document.

Inserting Word Art, Clipart and Pictures, Page Setting, Bullets and Numbering, Borders and Shading, Format Painter, Find and Replace, Inserting Tables:

Inserting, deleting-rows and columns, merging cells, splitting cells, using auto format: Mail Merge

**MS Power Point:**

Introduction to Presentation Graphics, Understanding the concept of Slide Shows, Basic elements of a slide, Different types of Slide Layouts, Creating and saving a Presentation, Different views of a slide: Normal view, Slide Sorter view and Slide Show, Editing and Formatting a slide: Adding Titles, Subtitles, Text Background, Watermark; Headers and Footers, Numbering Slides;

Inserting pictures from files, Animating-pictures and Text with Sound Effects, Timing Text box, Pictures and Slides, Rehearse Timings, ungrouping and Grouping pictures from Clipart.

### **MS Excel:**

Introduction to Spreadsheets, Concept of Worksheets and workbooks, Creating and Saving a worksheet, Working with a spreadsheet: entering numbers, text, date/time, series using Auto Fill, Editing and formatting a worksheet including changing colour, size, font, alignment of text, Inserting or Deleting cells, rows and columns, Formulae-Entering a formula in a cell, using operators (+, -, \*, /) in formulae, Relative referencing, Absolute referencing and mixed referencing, Printing a worksheet.

Use Simple Statistical functions: SUMO, AVERAGE(), MAX(), MIN(), IF(), (without compound statements); inserting tables in worksheet, Embedding Charts of various types: Line, Pie, Scatter, Bar and Area in a worksheet.

### **UNIT 3 : IT APPLICATIONS**

Students are suggested to work on the following areas using MS-Word, MS-Powerpoint and MS-Excel on topics implementing the tools covered in the course.

#### **Domains:**

#### **Documentation:**

- \* Informal letter
- \* Formal letter
- \* Report Writing
- \* Greeting card
- \* Poster making

#### **Presentation :**

- \* School Magazine
- \* Environment and Pollution
- \* Product Advertisement
- \* Any topic specific from text book (any subject)

#### **Analysis Reporting:**

- \* Cricket Record
- \* Weather Report
- \* School/Class Result

## **CLASS IX PRACTICALS**

**Practical Paper  
One**

**Examination Duration  
3 Hours**

**Marks  
60**

**(A) HANDS ON EXPERIENCE** (4 Exercises)

**30 Marks**

#### **Design of a Practical Question Paper**

The examiner is advised to set the question paper according to the prescribed curriculum and distribution of marks.

I	Windows Operating System	6 Marks
II	MS Word	8 Marks
III	MS Excel	8 Marks
IV	MS Powerpoint	8 Marks

**I. WINDOWS operating system :\***

To test some of the following basic system operations on file/folder(s)

- Create
- Rename
- Copy/Cut/Paste
- Delete
- Commands related to Notepad/Wordpad/Paint
- Using Clipboard

**II. MS Word:**

A Paragraph in MS Word incorporating some of the tools given below to be tested during the examination

- Editing and Formatting text and paragraph.
- Page and Paragraph Setup
- Inserting pictures and WordArt

**III. MS Power Point:\***

A Power Point presentation with 2/3 slides using some of the tools given below to be tested during the examination:

- Editing and formatting slides
- Inserting pictures and sounds
- Animating pictures and text with sound effects

**IV. MS Excel:**

A problem in spreadsheet related to some of the tools given below to be tested during the examination:

- Formatting cells and data
- Functions & Formulae (Relative, absolute and Mixed reference)
- Charts

**(B) IT Application Report File**

**20 Marks**

Students are supposed to make a IT Application Report File Containing Real life assignments/ presentations using MS Word,. MS PowerPoint and MS Excel on at least 15 topics from the domain:

- At least 5 documents of MS Word
- At least 5 presentations of MS Power Point
- At least 5 spreadsheets of MS Excel with graphs

**(C) VIVAVOCE**

**10 Marks**

**CLASSX**  
**Unitwise Periods/Weightage-Theory and Practicals**

Unit	Topic	Marks	
		Theory	Practical
<b>1</b>	<b>IT Basics</b>	10	
<b>2</b>	<b>IT Tools</b>	30	30
	MS- Office		
	*MS-Access	(10)	(10)
	HTML	(20)	(20)
<b>3</b>	<b>IT Application</b>	00	30
	Report file		(20)
	Viva		(10)
	<b>Total</b>	<b>40</b>	<b>60</b>

**One paper**

**Time: 2 hours**

**Marks: 40**

**THEORY**

**UNIT 1 : IT BASICS**

**Internet:** World Wide Web, Web Servers, Web sites, Web Pages, Web Browsers, HTML, Web address, Email address, URL, HTTP.

**Services available on Internet:** Information Retrieval, Electronic Mails, Locating sites using search engines and finding people on the net, Chat, Video Conferencing, FTP, Downloading and Uploading files from or two remote site, Newsgroup.

**UNIT 2 : IT TOOLS**

**MS-Office**

**MS Access:**

Basic Concepts and need for a database, Creating a database, Setting the Primary Key, Entering data into a database, Inserting and deleting fields, Inserting and deleting Records, **Data Validation:** Field Size, Default Value Validation Rule, Validation Text, Required, Allow Zero Length.

**HYPER TEXT MARK UP LANGUAGE**

Basic Concept of Web Browsers with emphasis on popular browsers Internet Explorer and Netscape Navigator.

**HTML Fundamentals:**

Introduction to Web Page Designing using HTML, Creating and saving an HTML document, Elements in HTML Container and Empty elements, Designing web pages using the following elements:

HTML, HEAD, **TITLE**, BODY (Attributes: BACKGROUND, BGCOLOR, TEXT, LINK, ALIN **VLINK**, LEFTMARGIN, TOPMARGIN), FONT (Attributes: COLOUR, SIZE, FACE),

BASEFONT (Attribute: COLOUR, SIZE, FACE), CENTER, BR (Break), HR (Horizontal Rule),

Attributes: SIZE, WIDTH, ALIGH,-NOSHADE, COLOUR, COMMENTS , ! for comments, H1..

H6 (Heading), P (Paragraph), B (Bold), I (Italics), U (Underline), UL & OL (Unorder List & Ordered List

Attributes: TYPE, START, LI (List Item), Insertion of images using the element IMG (Attributes : SRC, WIDTH, HEIGHT, ALT, ALIGN)

Internal and External Linking between Web Pages: Significance of linking, A-Anchor Element (Attributes: NAME HREF, TITLE, ALT).

### UNIT 3 : IT APPLICATIONS

Students are suggested to work on the following areas using Access and HTML on topics implementing the tools covered in the course.

#### Domains:

##### Database

- \* Personal Data Management System
- \* Employee Payroll
- \* Stock Inventory

##### Website Designing

- \* Travel and Tourism
- \* Rural India
- \* Environment and Pollution

### CLASS X PRACTICALS

Practical Paper One	Examination Duration 3 Hours	Marks 60
(A) HANDS ON EXPERIENCE (2 Exercises)		30 Marks
I MS ACCESS	8 MARKS	
II HTML	22 MARKS	

#### I. MS Access:\*

A problem in MS Access related to some of the tools given below to be tested during the examination:

- Creating and entering data into a database
- Setting the primary key
- Data Validation

#### II. HTML\*

A Problem on Web Page designing (Minimum 2 pages) to be given which will cover some of the following HTML elements:

- <HTML>, <HEAD>, <TITLE>, <BODY>
- Font Styles: <B>, <i>|<U>
- <FONT>-FACE, SIZE
- <CENTER>
- <P>-ALIGN
- <A>
- <IMG SRC>
- Comments: <!-->

The students are supposed to know the tools and style for designing domain specific webpages from real life applications and the topic mentioned in the syllabus

*\*Printouts of the document(s) should be attached with the answer sheet*

**(B) IT APPLICATION REPORT FILE****20 Marks**

Students are supposed to make a IT Applications Report File Containing Real life assignment/ presentations using MS Access and HTML on topic from the domain:

- Documents of MS Access (At least 5)
- HTML source code along with browser view (At least 10)

**(C) VIVA VOCE****10 Marks**

The questions can be asked from any portion of the syllabus covered during Class IX and Class X.

**NOTE**

Teachers are suggested to give first-hand demonstration covering the aspects as : Connecting to Internet, Using popular Search Engines, Web Browsing, Opening E-mail accounts, Sending and Receiving E-mails, Downloading files and pictures.

**Infrastructure**

Following minimum infrastructure requirement is suggested keeping in view of the existing infrastructure

**Software:**

- \* WIN 96+
- \* MS Office 95+
- \* Leap Office 2000
- \* Netscape Navigator
- \* Internet Explorer

**Minimum hardware requirement:**

- \* 486 Multimedia Machine
- \* 16 MB RAM
- \* 4.3 GB HDD

**Internet connection :**

- \* TCP/IP
- Student Machine ratio : 2:1

**Teacher's Qualification :**

- \* Graduate (B.Sc. Comp)
- \* Graduate with 'A' Level
- \* Graduate with PGDCA (minimum 1 and half years) from a recognized institute/university

**Magazine/Journal/Video Film**

- \* PC Quest
- \* Chip
- \* PC World
- \* Computer@home
- \* Computer Today
- \* Microsoft training software
- \* C-DAC's ADIT course material

## HOME SCIENCE

<b>One Theory paper</b>	<b>3 hours</b>	<b>75 marks</b>
<b>One Practical paper</b>	<b>3 hours</b>	<b>25 marks</b>

### Theory

### Marks

**Unit I :** Concept and Scope of Home Science

5

**Unit II: Family – a unit of society:** Type & size of family; reasons for change in family types, effect of size on welfare of its members, role of family members in its smooth functioning.

10

**Unit III: Food and its relation to health:** Definition of food, health, nutrition, nutrients and balanced diet; functions of food

10

- (i) energy giving
- (ii) growth and repair
- (iii) protection of body functions
- (iv) psychological satisfaction
- (v) sociological function
- (vi) inter relationship between food and health.

**Unit IV: Methods of cooking:** boiling, steaming, pressure cooking, frying, Roasting & baking – brief description of each & suitability for foods.

10

**Unit V : Functions of a home :** protective and social; characteristics of a functional house-security, light, ventilation, sanitation (brief description of disposal of waste water, garbage and human excreta) & surroundings.

10

**Unit VI : Safety in the house:** prevention of accidents in the kitchen and bathroom-cuts, fall, burn, electric shock, poisoning, safe use of fuels; first-aid given to cuts, bruises, burns, scalds, poisoning, shocks & bites.

10

**Unit VII : Fabrics available in the Market:** Definition of fibre and yarn; classification of fibre on the basis of origin and length; yarn making, blends, construction of fabric-weaving (different types of weaves-plain, twill and satin), felting and knitting; characteristics of fibers – length, durability, absorbancy, heat conductivity resilience & elasticity; effect of heat, moth and mildew, acids and alkalis.

14

**Unit VIII: Selection of clothes:** Factors affecting selection (a) fabric related factors (characteristics of fibre, fabric construction)

- (b) person related factors – age, occupation, occasion, fashion, figure, comfort
- (c) other factors – climate & cost.

## CLASS IX

**Practicals:** 20+5 (sessional work)

25

- 1 Observe your own family for – type size & role of each member. Record the activities of all members on any one typical day of the family.
- 2 Observe food preparations using different methods and record taste, texture, colour of ready food.
- 3 Prepare food using different methods of cooking
- 4 Study your own house for light, ventilation, disposal of waste water and surroundings & record your observations.
- 5 Study your house for measures of safety against accidents and give suggestions for improvement.
- 6 Practice giving first aid to cuts, burns, fevers, scalds & bites.
- 7 Collect samples of fabrics available in the market and present a comparative picture on the basis of cost (optional), durability, appearance and suitability.
- 8 Identification of fabric – Physical appearance and burning test.

## CLASS X

**One Theory paper**

**3 hrs**

**75 marks**

**One Practical paper**

**3 hrs**

**25 marks**

Theory

Marks

Unit I: Principles of growth and development of child; growth **and development of children between birth to 3 years**. Important milestone in physical, motor, social emotional and language development of children. Physical, social and emotional needs of children.

10

Unit II: Role of books, music, rhymes, games, radio, TV & Video, in the life of a child upto 3 years of age.

4

Unit III: **Play** : Meaning, need and types of play in children between birth & 3 yrs; Characteristics of play-active, passive, natural, serious and exploratory, Play materials for children-Characteristics of play material.

5

Unit IV: **Nutrients** : Functions, sources and deficiency of Carbohydrates, Proteins, Fats Minerals-Iron, Calcium and Iodine and Vitamins-Vitamin A,B,B2 Vitamin C and D. Loss of nutrients during cooking, conservation and enhancement of nutrients.

7

Unit V: **Meal Planning** : concept, need and factors affecting meal planning-age, sex, climate, occupation, physical needs, number of family members, economic status of family, availability of food, family traditions, likes and dislikes and occasions;

6

Food Groups (Basic:5 suggested by ICMR); Use of food groups in planning balanced diet, food allowances suggested by ICMR.

Unit VI : **Food hygiene & methods of storage of food** : Rules of hygienic handling of food Method of storage of perishable, semi-perishable and non-perishable foods.

6

Unit VII: **Resources available to family**:

Types of resources – Human (Energy, time, knowledge and skill)Non-Human (money, material goods and community resources);general characteristics of resources, wise use of resources

6

**Unit VIII: Money Management :**

Source of family income; Expenditure - spending plan;  
allocations of money; recording expenditure;  
Savings - need and importance; generation of additional income;  
Investment - ways of investment.

8

**Unit IX : Consumer Education :**

Consumer rights and responsibilities, consumer problems. Malpractices of traders-price variation, poor quality, adulteration, faulty weights and measures, non-availability of goods, misleading information, lack of standardised products, misleading advertisement, aids to help consumers-standardisation marks, labels, packages and advertisements.

6

**Unit X: Care of clothes:**

Cleaning and furnishing agents used in everyday care of clothes in the homes: stain removal (precautions and methods); Laundering and storage of cotton, silk, wool and synthetics.

**Unit XI: Apparel :**

Ready-made clothes, Tailor-made clothes and  
Home-stitched clothes - advantages and disadvantages

5

Practicals : 20 + 5 (sessional work) = 25

1. Observe and record physical and motor characteristics of a child at any given stage between 0 –3 yrs of age.
2. Observe play activities of children between 1-3 years of age. Record their interests and characteristics of play materials.
3. Make a suitable play object for a child between 0-3 yrs.
4. Prepare dishes using methods of enhancement of nutrients (Tomato Soup, Egg Flip, Stuffed Paranthas, Vegetable Pakora, Suji Halwa, Vegetable Fruit Rice, Potato Raita, Salad)
5. Prepare useful household items recycling waste materials
6. List any five malpractices you have observed in the market
7. Practice basic stitches- tacking, running, hemming and back stitch.
8. Remove common stains-curry, paint, ball pen ink, lipstick, blood, rust, tea & coffee.
9. Launder and finish cotton, silk, wool and synthetic articles.
10. Examine quality of a stitched garment
11. Read label on a ready made garment.

*Note : Students are required to maintain record of practical work undertaken in the academic session.*

**COMMERCIAL STUDIES  
CLASS IX**

**One Paper**

**3 Hours**

**100 Marks**

**1. Commercial Organisations - distinction between the various types, merits and demerits**

- a) Understanding of what is meant by commerce, bussiness, industry, trade, organisation, firm, company.
- b) Commercial organisation grouped according to activities, industrial groupings.
- c) Grouping according to sectors- primary, secondary and tertiary.
- d) Profit-making and non-profit organisations.
- e) Ownership structure- proprietorship, partnership, joint stock company, public limited company, public corporation, cooperative society, franchise, charitable organisation.

**2. Understanding the functions of a commercial organisation**

The following topics should be studied as departments in a typical firm only.

- a) Marketing and sales
- b) Fianance
- c) Human Resources (personnel, training)
- d) Production
- e) Purchasing and stores
- f) General Administration and Legal

**3. Communications**

- a) The need for comunication in commercial organisation.
- b) Verbal (written, spoken) and non-verbal communication.
- c) Inter-personal skills in communication.
- d) Different methods of communication (letter, facsimile, e-mail, video conference, memo, telephonic conversation, etc).
- c) Inter-personal skills in communication.
- d) Different methods of communication (letter, facsimile, e-mail, video conference, memo, telephonic conversation, etc).

**4. Accounting - Objectives and basic accounting terminology**

- a) Objectives- to maintain records of business, calculation of profit and loss, depiction of financial position, to make the information available to various groups and users.
- b) Basic accounting terminology - Capital, liability, asset, revenue, expense purchase, sales, stocks, debtors, creditors.
- c) Simple understanding of the use of journals, ledgers, cash book, petty cash book, trial balance, bank reconciliation statement (*no questions are to be set on recording of entries or on calculation - merely an understanding of the use of the above is required*).

**5. Trade**

- a) Meaning and types of trade.
- b) Home trade and international trade, import, export and entrepot trade, role of WTO.

## CLASS X

**One Paper**

**3 Hours**

**100 Marks**

**1. Stakeholders in commercial organisations**

- a) Distinction between stakeholder and customer
- b) Internal and external stakeholder.
- c) Expectations of stakeholders-employers (owners and managers), employees, associates and the general publics).

**2. Regulatory structure related to commercial organisations - simple understanding only**

- a) Simple understanding of the scope only of the Companies Act.
- b) Sales and Marketing (concept behind code of conduct for advertisers, fair trade, role of MRTP, Consumer Protection Act).
- c) Employment and labour legislation (including an emphasis on the ban on child labour); human rights and child rights (including the UN Charter). Concept and enforcement of social security laws (including brief reference to Provident Fund, Gratuity, Pension, Group Insurance).
- d) Financial regulation (accounting standards and ethics; taxation)
- e) Regulation On Intellectual Property (Copy Right, Trade Marks, Patents)

**3. Marketing**

- a) Purposes and key types of marketing activities - with examples from consumer goods, consumer services.
- b) Difference between a product and a service (with examples)
- c) Assessing demand - including use of market research tools.
- d) Advertising and brand promotion.
- e) Sales and the selling process, including the difference between marketing and sales, qualities of a good salesman.

**4. Finance**

- a) Purpose of financial recording in commercial organisations (the accounting cycle), elementary understanding of manual and computerised systems.
- b) Principles of financial accounting and reporting - a simple understanding without calculations of the use for non-trading organisations (receipt and payment account, income and expenditure account balance sheet), trading organisations (trading account, profit and loss account, balance sheet).
- c) Interpreting financial reports - given the financial statements for a trading organisation, student should be able to interpret and make deductions.
- d) Budgets and their utility in planning (including the concept of cash flow statements).
- e) Banking - functions of the central bank and commercial banks, types of accounts and banking transactions.
- f) Fundamental concept of Cost (direct, variable, etc)

**5. Human Resources**

- a) Methods of recruitment, selection and training ( including the use of appraisal systems).
- b) Simple understanding of industrial relations and the role of trade unions.

# CIVICS & ECONOMICS

## CLASS IX

**One paper**

**Time : Three hours**

**Marks : 100**

**Unit**

**Marks**

### **CIVICS**

Man, Society and relationship

Citizen and citizenship

Government

Local Self Government in Villages and Cities

**50**

Constitution of India Its salient features

Fundamental Rights and Duties

India as a Nation

### **ECONOMICS**

Impact of British Rule on Indian Economy

Indian Economy at the time of Independence

Economic Growth and Structural Changes since Independence

**50**

Understanding an Economy

An Overview of Indian Economy

## **PART A : CIVICS**

### **UNIT I      MAN, SOCIETY AND RELATIONSHIP**

Society, Society for life, Society for good life. Interdependence.

Evolution. The Indian society.

Man's relationship - Family, types and function of family. Man and school, man and nation.

Individual relationship with world at large.

### **UNIT II      CITIZEN AND CITIZENSHIP**

Meaning of citizen and alien. Difference between citizen and alien.

Types of citizenship. Double principle or dual citizenship.

Naturalised citizenship - Acquiring and losing citizenship, complete and partial.

Rights, classification of right.

Fundamental rights, duties.

### **UNIT III      GOVERNMENT**

Government - meaning and function.

Welfare state. Organs and classification of government.

Difference between the two forms of government. Indian Parliamentary Democracy.

Duties of citizen to the government.

#### **UNIT IV LOCAL SELF GOVERNMENT IN VILLAGES AND CITIES**

Local Self Government - significance, classification. 73rd Amendment Act 1993.  
Three tiers system. Evaluation of Panchayati Raj and remedial measures.  
A brief history of Local Self Government in cities; 74th Amendment Act,  
Municipal corporation and its functions. Municipalities and its function.  
Municipal revenue and expenditure.  
Cantonment Boards, Ports and improvement Trusts.  
Nagar Panchayats for smaller towns.  
District Administration - Role and functions of Deputy Commissioner,  
Problems of urban local bodies.

#### **UNIT V CONSTITUTION OF INDIA ITS SALIENT FEATURES**

Meaning of constitution  
Constitution of India - its salient features.

#### **UNIT VI FUNDAMENTAL RIGHTS AND DUTIES**

#### **UNIT VII INDIA AS A NATION**

Nationality and nation. India - a land of diversities. Diversity of India's Physical features.  
National integration - Meaning and significance.  
Cultural unity through saints and seers.  
National symbol and festivals, religious and national festivals.  
Common aspiration. Rapid means of transport and communication.  
Ideals before our nation.

### **PART B : ECONOMICS**

#### **UNIT VIII IMPACT OF BRITISH RULE ON INDIAN ECONOMY**

Constructive and destructive role of the British Rule.  
Poverty - Stagnation and backwardness, Estimation and causes.  
The partition of India and its impact.

#### **UNIT IX INDIAN ECONOMY AT THE TIME OF INDEPENDENCE**

Features of Indian Economy; colonial, semi-feudal, stagnant, backward, disintegrated, depreciated and depleted economy.  
Widespread poverty, overpopulated economy.  
Occupational structure at the time of Independence.  
State of economic activities - agriculture, industry and trade.  
Infrastructure - economic and social infrastructure.

#### **UNIT X ECONOMIC GROWTH AND STRUCTURAL CHANGES SINCE INDEPENDENCE**

Economic growth - meaning and measurement.  
Economic and non-economic factors affecting economic growth.  
Economic growth of Indian economy since independence.  
Growth of National per capita income under five-year plans.  
Structural changes - meaning.  
Structural changes in India's National income since independence.  
Changes in occupational structure.

Relative share of public and private sectors.  
Relative share of rural and urban sector in national income.  
Significance of organised and unorganised sectors.  
Economic growth and cultural change.

#### **UNIT XI UNDERSTANDING AN ECONOMY**

Economy. Types of Economies. Economic activities.  
Classification of economies on the basis of ownership.  
Mixed economy - meaning, important features major defects.  
India as a mixed economy.  
Classification of economies on the basis of economic development.  
Developed and under developed economy - common characteristics  
India as a developing economy.  
Basic problems of an economy and its solution.  
Producers - meaning and kinds.

#### **UNIT XII AN OVERVIEW OF INDIAN ECONOMY**

Factors of production. Domestic product and related concepts.  
Basic features of Indian economy.  
Institutional setup - meaning, main characteristics.  
Main sectors of Indian Economy.  
Public sectors and private sectors - aims, comparison and inter-relationship.  
Primary, secondary and tertiary sectors.  
Rural and urban sectors. Distribution of NDP between states.  
Population growth and related problems. Main features of Indian population  
Economic advantages and disadvantages of population.  
Malthusian and optimum theory of population.  
Causes of rapid increase in population. Efforts to solve population problem.  
Problem of poverty, unemployment and malnutrition.  
Human resource and economic development.

### **CLASS - X**

**One paper**

**Time : Three hours**

**Marks : 100**

*Unit*

*Marks*

#### **CIVICS**

Directive Principles of State Policies  
Central Government (Executive and Legislature)  
State Executive and Legislature  
Supreme Court  
Union Territories  
Indian Democracy and Major Political parties  
Challenges before Indian Democracy  
India and World Peace

**50**

## **ECONOMICS**

Concepts in Development  
Indicators of Economic Development  
Economic planning in India  
Economic Reforms since 1991  
Agriculture  
Industry  
Foreign Trade  
The Infrastructure of Indian Economy  
The State and Economic Development

**50**

## **PART -A : CIVICS**

### **UNIT I      DIRECTIVE PRINCIPLES OF STATE POLICIES**

Nature, classification and evaluation of Directive Principles.  
Difference between Fundamental Rights and Directive Principles.

### **UNIT II      CENTRAL GOVERNMENT (EXECUTIVE AND LEGISLATURE)**

President - qualification, condition of office, election, tenure, removal and casual vacancy.

### **UNIT II      CENTRAL GOVERNMENT (EXECUTIVE AND LEGISLATURE)**

President - qualification, condition of office, election, tenure, removal and casual vacancy. Powers and position of President.  
Vice President - qualification, election, tenure, removal. Function of Vice President.  
Prime Minister - Appointment and removal. Powers and position.  
Council of Ministers - categories, functions. Ministerial responsibilities.  
Distinction between Council of Ministers and the Cabinet.  
The Central Legislature. Composition of parliament.  
Procedure for law making.

### **UNIT III     STATE EXECUTIVE AND LEGISLATURE**

Governor - appointment, qualification, condition of office, tenure, emoluments, oath of office. Powers and functions.  
Chief Minister - appointment, qualification, tenure. Powers and functions.  
Council of Ministers - composition, category, term. Responsibility of Ministers.  
Distinction between Council of Ministers and Cabinet.  
The State Legislature. Position and powers of speaker

### **UNIT IV     SUPREME COURT**

Composition and seat of the Supreme Court.  
Supreme Court Judges - qualifications, appointment, tenure, removal, salaries.  
Jurisdiction of the Supreme Court. Independence of the Supreme Court.  
The state Judiciary. Composition of High Court.  
High Court Judges - qualifications, tenure, removal, salaries. Practice after retirement.  
Jurisdiction of the High Court, appointment of its officers and servants, extension of Jurisdiction.  
Subordinate Courts. Other Courts. People's Courts (Lok Adalats)

**UNIT V UNION TERRITORIES**  
Provision regarding Union Territories. Union Territory of Delhi. Lt. Governor of Delhi.  
Functions of Council of Ministers.  
Administration of Chandigarh, Pondichery, Dadar, Nagar Haveli, Daman, Diu,  
Lakshadweep, Andaman and Nicobar Island.  
Control of the Union Government.

**UNIT VI INDIAN DEMOCRACY AND MAJOR POLITICAL PARTIES**  
Democracy, meaning, type. Requisites of Democracy.  
Universal Adult franchise. Advantages of Democracy.  
Formation and expression of public opinion.  
Elections. Election commissioner, powers and function.  
Election procedure.  
Meaning of political party. Types of party system.  
Role of opposition in Democracy including negative role.  
Party system in India. National and Regional parties.  
Important National and Regional parties.

**UNIT VII CHALLENGES BEFORE INDIAN DEMOCRACY**  
Economic insecurity. Social inequality.  
Population - increase in population, causes and measures to control population growth.  
Unemployment. Method for eradication of poverty and unemployment.  
Illiteracy and Elementary Education.  
Regionalism and regional aspiration. Communalism.  
Problems of minorities. Minority safeguards  
Casteism - meaning. Evils of Casteism, efforts for eradication.  
Untouchability and backward classes.  
Status of women- their present plight and upliftment.  
Anti-social practices and method to combat them.

**UNIT VIII INDIA AND WORLD PEACE**  
Foreign policy - meaning and objects. Basic principles of India's Foreign policy.  
Regional cooperation. India's relation with USA and with neighbours.  
India in the United Nations.  
World problems. Nuclear Arms Race. India and disarmament.  
New International Economic Order (NIEO).

## **PART B : ECONOMICS**

**UNIT IX CONCEPTS IN DEVELOPMENT**  
Meaning of Economic growth and Economic Development and their difference.  
Economic Development - Objective, factors affecting Economic Development.  
Sustainable Development - concept, measurement.  
Quality of life.

**UNIT X INDICATORS OF ECONOMIC DEVELOPMENT**  
Economic indicators. National income. Suitability of real national income.  
Per capita income. Suitability of Real Per Capita Income.  
Social indicators. UNRISD'S list of socio-economic indicators.

Physical Quality of Life Index (PQLI), Human development index(HDI).  
Construction of Human Development Index. Quality of Life Index(QLI).  
Human Resource Development.

**UNIT XI ECONOMIC PLANNING IN INDIA**

Economic planning - meaning, need and objectives..  
Reason for adoption of planning. Planning strategies.  
India's Five Year Plans and Achievements.

**UNIT XII ECONOMIC REFORMS SINCE 1991**

Economic reforms.  
New Economic Policy(NEP) - Need of New Economic Policy, Components,  
objectives.  
Structural reforms. Liberalisation. Privatisation. Globalisation.  
Stabilisation of reforms.  
Achievement and short comings of New Economic Policy.

**UNIT XIII AGRICULTURE**

Importance of agriculture in Indian Economy.  
Agriculture Households and their classification. Agricultural inputs.  
Green Revolution and the new technology.  
Problems of Indian agriculture and remedy.  
Contribution of agriculture.  
Future outlook for Indian agriculture.

**UNIT XIV INDUSTRY**

Need for rapid industrialisation. Present industrial structure - public, private and joint  
sector industries.  
Comparison between public sector and private sector.  
Cottage and small scale industries - meaning, features and importance.  
Problems of Cottage and small scale industries.  
Large scale industries and their classification.  
Promotional measures by government. Regional disparities in industries.  
Industrial productivity and efficiency. - meaning and measures.  
Complementary of agriculture and industry. Future outlook.

**UNIT XV FOREIGN TRADE**

Internal trade and foreign trade. Conditions for foreign trade.  
Importance of Foreign Trade. Main items of exports and imports.

## **UNIT XVI THE INFRASTRUCTURE OF INDIAN ECONOMY**

Meaning, need and kinds of infrastructure.  
Components of Economic infrastructure.  
Transport - meaning; road, railways, air, pipeline and water transport.  
Significance of transport in Economic development.  
Communication - meaning, types - telecommunication, posts, telegraph.  
Energy - categories, sources and growth. Irrigation.  
Money, banks and financial institution.  
Components of social infrastructure.  
Importance and advantages of well developed social infrastructure.  
Education, training and research. Health and family welfare.  
Housing and civic amenities.

## **UNIT XVII THE STATE AND ECONOMIC DEVELOPMENT**

State - meaning, functions.  
Methods of state intervention in development process.  
Fiscal policy. Monetary policy.  
Physical control. Economic planning.  
Changing role of state in Economic Development.  
Evolution of role of state and economic development of India.

**ASSAMESE  
CLASS IX**

**Section A**

**1. Applied Grammar**

- (a) Major parts of Speech  
(Bishesya, Bishesan & Sarbanam)
- (b) Anukar, Anurup Sabda
- (c) Satwa Bidhi
- (d) Sandhi (Swara, Byanjana, Bisarga)
- (e) Bivakti, Karak
- (f) Prefixes (Krit pratyay)
- (g) Jatuwa Khandabakya
- (h) Correction of errors in wrong use of  
Proper words.
- (i) Proverb (Phakara yujana)

**2. Essay Writing**

- (a) Utsab Bishayak
- (b) Jibani Mulak
- (c) Abhiruchi Bisayak
- (d) Adarsa Mulak

**Books to be studied:**

- (a) Bahal Vyakaran by Satyanath Barah
- (b) Rachana Bichitra by Dharma Singha Deka

**Section B**

**1. Poetry**

- (i) Explanation of text passage
- (ii) General questions on Text Books

**Prescribed Book:**

Madhayamik Asamiya Sahitya Chayanika - Published by Assam State Text Book Production & Publication Corporation Ltd..  
Guwahati.

**Topics to be studied**

- (a) Kaikeyir bar bhiksha - Madhav Kandali
- (b) Geet Aaru Sabi - Durgeswar Sarma
- (c) Biswa Haran - Ratnakanta Borkakoty
- (d) Aami Duwar Mukali Karu - Debakanta Baruah

**2. Prose**

- (i) Explanation of the Text passage
  - (ii) General questions on Text Book
- Madhyamik Asamiya Sahitya Chayanika

**Topics to be studied :**

- (a) Puthi Adhyayan - Satyanath Bora
- (b) Assmiya Chahar Atiguri - by Benudhar Sarma
- (c) Swargadeu Rudrasingha - Gunaviram Baruah
- (d) Namghar - Jatiya Natshal - Birinchi Kumar Baruah
- (e) Ghunusha - Sarat Chandra Goswami
3. Rapid Reading - (Not for detailed Study)

**Book prescribed :**

Mor Saisab, Mor Kaisor by Dr. Bhabendra Nath Saikia,  
Published by Assam Book Hive, Paan Bazar, Guwahati - 781001  
Chapters to be studied  
1st to 10th Chapters

**CLASS X****Section - A****1. Applied Grammar**

- (a) Upasarga & Anusarga  
(Sanskrit)
- (b) Natvabidhi
- (c) Sandhi (Swara, Byanjana, Bisarga)
- (d) Gender & Number
- (e) Prefixes (Taddhit Pratyay)
- (f) Substitution of many words in one word (Eta sabdat prakash)
- (g) Correction errors in construction  
e.g. word order
- (h) Punctuation
- (i) Major parts of speech (Kriya & Abyay)
- (j) Jatwa Khandabakya
- (k) Opposite words
- (l) Transformation of sentences

**2. Composition**

- (a) Expansion of idea
- (b) Essay writing 10
  - (i) Utab Bisayak
  - (ii) Abhiruchi Bisayak
  - (iii) Jibani Mulak
  - (iv) Adarsa Mulak

**Prescribed Book**

- (a) Bahal Vyakaran - by Satyanath Bora
- (b) Rachana Bichitra - by Dharma Singha Deka

## Section - B

### 1. Poetry

#### 2. Prose

- (a) Explanations of the text passage
- (b) General Textual Questions

#### **Prescribed book:**

Madhyamik Asamiya Sahitya Chayanika - Published by Assam State Text Book production & Publication Corporation Ltd.. Guwahati.

#### **Topics to be Studied :**

- (i) Bargeet by Sankardev
- (ii) Manav Bandana by Chandra Kumar Agarwala
- (iii) Cakulu by Hiteswar Barbarua
- (iv) Chawtali Nach by Nabakanta Baruah
- (v) Tor Nai Bandhuwa Bat by Parvati Prasad Baruah

#### 2. Prose

- (a) Explanations of the text passage
- (b) General Textual Questions

#### **Books prescribed**

#### **A. Madhyamik Asamiya Sahitya Chayanika**

##### *Topics to be Studied :*

- (i) Mukti by Lakshminath Bezbarua
- (ii) Samay by Nilamani Phukan
- (iii) Sankardevar Samaj Sangathan by Dimbeswar Neog
- (iv) Mahatmagandhir Balyakalor Ghatona by Amio Kumar Das.
- (v) Bor Asom by Surjya Kumar Bhuyan

#### 3. Rapid Reading (for Non Detailed study)

##### *Book prescribed :*

**Mor Saisab, Mor Kaisor by Dr. Bhabendra Nath Saikia,  
Published by Assam Book Hive, Paan Bazaar, Guwahati-781001**

Chapters to be studied -  
11th to 20th Chapters

## BENGALI CLASS IX

### Section-A

#### Suggested

##### 1. Grammar

1. Places of articulation of Bengali speech-sound and their classification;
2. Sandhi (Swara)
3. Samas (Tatpuruṣa, Bahubreehe and Dwigu)
4. Bangla Derivational Affixes (Bangla Kritand Bangla Taddhita Pratyaya)
5. Idioms and Proverbs
6. Substitution of many words in one word (Ek Kathay Prakash)
7. Sabda, Pada, Dhatu and Bibhokti Prayog

##### 2. Composition

###### (i) Story Writing

(Title - 2 ; Moral - 2 ; Story - 6)

###### (ii) Precis

(iii) Amplification (expansion of ideas)

Prescribed book : Prabesika Bangla Bakran O

Rachana by Nirmal Kumar Das, Publisher Oriental

Book Co., 56, Surya Sen Street, Kolkata - 700 009

### Section B

#### 1. Prose (Detailed Study)

(i) General Questions on the text passages

(ii) Expansion of ideas

#### Prescribed book:

'Path Sankalan' (Prose portion only) Latest Edition

Published by Board of Secondary Education, West Bengal, Kolkata.

#### Lessons to be studied :

1. Sagar Sangame Nabakumar by Bankim Chandra Chatterjee
2. Prachin Bharate Vigyan Charcha by Satyendra Nath Bose
3. Niomer Rajatta by Ramendra Sunder Tribedy
4. Chhinna Patra - Rabindra Nath Tagore
5. Pallisamaj by Sarat Chandra Chaterjee
6. Nona Jal by Saiad Mustafa Ali

#### 2. Novel (for non-detailed study)

Am Antir Bhempu (1979) by Bibhuti Bhushan Banerji

Published by Signet press, 25/4, Ekbalpur, Calcutta-23.

Note : 1. The whole book is prescribed.

2. Questions would be of general nature e.g. dealing with themes, Character, etc.

### 3. Poetry

(i) General Questions

(ii) Explanations

Path Sankalan, Latest Edition (Poetry Portion only)

Published by Board of Secondary Education, West Bengal, Kolkata.

#### Poems to be studied : (Only Six Poems)

1. Kalkehir Nikat Bharu Datta by Mukundram
2. Banglar Mukh Ami Dekhiachchi - Jihananda Das
3. Bharat Tirtha by Rabindra Nath Tagore
4. Agamoni by Ram Prashad Sen.
5. Kabar (first three stanzas) by Jasimuddin
6. Ishwar Chandra Vidyasagar - Madhu Sudan Dutt

### CLASS X

#### Section - A

#### 1. Grammar

1. Sandhis (Byanjan & Bisarga)
2. Samas (Karmadhrya, Dwanda, Avyayibhabh)
3. Transformation of Sentences (Simple, Compound & Complex)
4. Sadhu and Chalit Bhasa
5. Punctuation - only sentences from prose
6. Polysemous words (to be used in sentences)  
(Ekisabda Bibhinya Artha Prayog)
7. General Correction of words and sentences

#### 2. Composition

- (i) Paragraph writing (150 words)
- (ii) Story Writing (with given hint in 100 words)  
(Title - 2; Moral - 1; Story - 3;)
- (iii) Personal Letter and Leave Application

#### 3. Reading comprehension of unseen prose passage

##### Prescribed Book :

**Prabesika Bangla Bakran O Rachna** by **Nirmal Kumar Das**

Publisher : Oriental Book Co., 56, Surya Sen Street, Kolkata - 700 009

#### Section B

#### 1. Prose (Detailed Study)

- (i) General Questions on the text passages
- (ii) Expansion of ideas

##### Prescribed book :

**'Path Sankalan'** (*Prose portion only*) Latest Edition

Published by Board of Secondary Education, West Bengal, Kolkata

##### Lessons to be studied :

1. Bhagirathir Utsha Shandhane by J.C. Bose
2. Ghar O Bahir by Rabindra Nath Tagore
3. Vidya Sagar By Rabindra Nath Tagore
4. Mahesh by Sarat Chndra Chatterjee
5. Palli Sahitya by Mohd. Shahidulla
6. Padma Nadir Majhi by Manik Bandhopadhyay

## **2. Poetry**

(i) General Questions

(ii) Explanations

***Path Sankalan*** (Latest Edition), (***Poetry portion only***)

Published by Board of Secondary Education, West Bengal, Kolkata

***Poems to be studied :***

1. Annapurna O Ishwari Patani by Bharat Chandra Roy
2. Chhatra Dhara by Kalidas Roy
3. Chhelar Dal by Satyendra Nath Dutta
4. kandari Hunshiyar by Kazi Nasurl Islam
5. Vibhishaner Prati Indrajit by Madhu Sudan Dutt
6. Dui Bigha Jamin - Rabindra Nath Tagore

## **3. Short Stories**

**Raj Kahini** (1986) by Avanindra Nath Tagore.

Published by Anand Publishers, Kolkata

Questions should be of general nature, i.e. dealing with themes, characters etc.

***(First Four Short Stories only)***

1. Shiladitya
2. Goho
3. Bappaditya
4. Padmini

**हिंदी पाठ्यक्रम - 'बी'**  
(कोड सं. - 085)  
कक्षा - 9

एक प्रश्नपत्र :

समय - 3 घंटे

पूर्णांक 100

(क) अपठित गद्यांश	20
(ख) रचना	10
(ग) व्यावहारिक-व्याकरण	20
(घ) स्पर्श भाग-1	30
उत्थवन भाग-1	10
(ङ) मौखिक-अभिव्यक्ति	10

**खण्ड क - अपठित गद्यांश**

20

1. (i) 300 से 400 शब्दों का एक गद्यांश
2. (ii) 200 से 300 शब्दों का एक गद्यांश

12

8

उपरोक्त गद्यांशों में से शीर्षक का चुनाव, विषय-वस्तु का चर्चा और भाविक बिंदुओं / विशेषताओं पर अति लघुसंक्षेपक प्रश्न पूछे जाएंगे।

**खण्ड ख - रचना**

10

3. (i) पत्र-लेखन (अनीपकारिक) माता-पिता, मित्र या संबंधी आदि को
4. (ii) अनुच्छेद-लेखन : सम-साम्यिक विषयों पर संकेत बिंदुओं पर आधारित 80 से 100 शब्दों का एक अनुच्छेद

5

5

**खण्ड ग - व्यावहारिक-व्याकरण**

20

5. (i) वर्ण-विच्छेद, वर्तनी : 'र' के विभिन्न रूप, अनुस्वार, अनुवर्तित नुस्वार (आगत ध्वनि)
6. (ii) शब्दों के संदर्भ में रूपसर्ग, प्रत्यय से शब्द निर्माण
6. (iii) पर्यायवाची, विरोध और अनेकार्थी शब्द, वाक्यश्रृंखला के लिए एक वाक्य
7. (iv) वाक्य के अंग, सरल वाक्य
8. (v) विभक्तियों का प्रयोग
9. (vi) मुद्रांकन - वाक्य प्रयोग

4

3

4

3

3

3

<b>खण्ड ब - पाठ्य-पुस्तकें (स्वर्ण)</b>	<b>15+15 = 30</b>
10. (i) दो में से एक काव्यरस पर आधारित तीन / चार अर्थ-प्रश्न को प्रश्न	6
11. (ii) कविताओं के विषय-श्रेण और सराहना पर आधारित चार में से तीन प्रश्न	3+3+3 = 9
12. (iii) दो में से एक कविता पर अर्थ-प्रश्न संबंधी तीन चार प्रश्न	6
13. (iv) गद्य-कव्यों के विषय-श्रेण पर आधारित चार में से तीन प्रश्न	3+3+3 = 9
<b>पूरा-पुस्तक : संक्षेप</b>	<b>10</b>
14. (v) दो में से एक निर्बंधात्मक प्रश्न	4
15. (vi) चार में से तीन संपूर्णात्मक प्रश्न	2+2+2 = 6

**खण्ड क - वैश्विक-आधिपत्यित** **10**

**1 सुचना** **8**

भक्ति या पंक्ति समग्री को चुनकर अर्थग्रहण करना

मार्तलाप, चन्द-विन्द, गायन, कविता-पाठ आदि को चुनकर समझाना, मूल्यांकन करना और अधिपत्यित के ढंग को बताना।

**2 चोलेन्य** **5**

- (i) गायन, चन्द-विन्द
- (ii) गति, सव, अश्वमेध अश्वमेध सहित समग्र कविता-वाचन,
- (iii) मार्तलाप और उसकी श्रेणपरिचयार्थ
- (iv) कार्यक्रम-प्रस्तुति
- (v) कथा-कहानी मञ्जना घटना सुनाना
- (vi) परिचय देना, परिचय प्राप्त करना
- (vii) गान्धुपूल संवाद-वाचन

**मार्तलाप की दक्षताएँ**

**दिश्या :** मार्तलाप की दक्षताओं का मूल्यांकन निम्नलिखित के आधार पर परीक्षा के समय होगा। निर्धारित 10 अंकों में 5 अंश (सुनना) के मूल्यांकन के लिए और 5 अंश (चोलेन्य) के मूल्यांकन के लिए होंगे।

**अवगण (सुनना) का मूल्यांकन**

परीक्षक किसी प्रासंगिक विषय पर एक अनुच्छेद का स्पष्ट वाचन करेगा। अनुच्छेद उभयात्मक या सुसंवात्मक हो

—

सकता है। अनुसूच्येन लगभग 200 शब्दों का होना चाहिए। परीक्षक को सुनते-सुनते परीक्षार्थी अलग-अलग काल पर दिए हुए श्लेष बोधन के अर्थों को इष्ट कर सकेंगे। अन्वय रिकत स्थान-पूर्ति, बहुविधता आदि अथवा अर्थ/अर्थ का चुनाव आदि विधाओं में हो सकते हैं। प्रत्येक श्लेष अंक के 10 परीक्षण प्राप्त होंगे।

#### आचन (बोलना) का परीक्षण

1. शिष्टों को काल पर आम्बित बर्णन : इस नाम में अपेक्षा की जाती कि परीक्षार्थी विवरणात्मक भाषा का प्रयोग करें।
2. किसी विषय का बर्णन : (विषय लोगों या स्थानों के हो सकते हैं)।
3. किसी निर्धारित विषय पर बोलना, जिससे वह अपने व्यक्तिगत अनुभव का प्रत्यक्षदर्शन कर सकें।
4. कोई कहानी सुनना या किसी घटना का बर्णन करना।

#### दृष्ट्यन्ती :

1. परीक्षण से पूर्व परीक्षार्थी को वेगरी के लिए कुछ समय दिया जाए।
2. विवरणात्मक भाषा में वर्तमान काल का प्रयोग अपेक्षित है।
3. निर्धारित विषय परीक्षार्थी के अनुभव संसार के हो जैसे : कोई पुस्तक या भाष्य-प्रयोग सुनना, हाल में पढ़ी पुस्तक या देखे गए सिनेमा की कहानी सुनना।
4. जब परीक्षार्थी बोलना प्रारंभ करे तो परीक्षक कम से कम इच्छेप करें।

#### शौकियों के अंतरण का मूल्यांकन

##### आचन (सुना) विद्यार्थी में

1. परिचित संदर्भों में प्रयुक्त शब्दों और पदों का समझने की समान्य योग्यता है, किन्तु सुसंबद्ध भाषण को नहीं समझ पाता।
3. छोटे संबद्ध कथनों को परिचित संदर्भों में समझने की योग्यता है।
5. परिचित या अपरिचित दोनों संदर्भों में कथित सूचना को स्पष्ट समझने की योग्यता है। अशुद्धिपूर्ण करता है जिससे प्रेषण में रुकावट आती है।
7. दीर्घ कथनों की श्रृंखला को पर्याप्त श्रद्धा से समझता है और निष्कर्ष निकाल सकता है।

##### आचन (बोलना) विद्यार्थी में

1. कोमल अलग-अलग शब्दों और पदों के प्रयोग की योग्यता प्रदर्शित करता है किन्तु एक सुसंबद्ध स्तर पर नहीं बोल सकता।
3. परिचित संदर्भों में कोमल छोटे संबद्ध कथनों का सीमित श्रद्धा से प्रयोग करता है।
5. अपेक्षाकृत दीर्घ प्रेषण में अधिक जटिल कथनों के प्रयोग की योग्यता प्रदर्शित करता है; अभी भी कुछ अशुद्धियाँ करता है, जिससे प्रेषण में रुकावट आती है।
7. अपरिचित स्थितियों में विचारों को तार्किक ढंग से संगठित कर भाष्य-प्रवाह प्रस्तुत कर सकता है। ऐसी श्रद्धापूर्ण करता है जिससे प्रेषण में रुकावट नहीं आती।

9. जटिल कार्यों के विचार-चिंतनों को समझने की योग्यता प्रदर्शित करता है, उद्योग के अनुसूक्त चुनने की कुशलता प्रदर्शित करता है।

9. उद्योग और श्रेष्ठ को लिए उपयुक्त रीति को अपना सकता है, फेरबदल मान्यता गलतियाँ करता है।

**निर्धारित पुस्तकें :**

1. स्पर्स - भाग 1 एन.सी.ई.आर.टी द्वारा प्रकाशित
2. संक्षेप भाग 1 - एन.सी.ई.आर.टी द्वारा प्रकाशित

**हिंदी पाठ्यक्रम - 'बी'**  
(कैड सं. - 085)  
कक्षा - 10

एक प्रश्नपत्र :

समय - 3 घंटे

पूर्णांक 100

(क) अपठित गद्यांश	20
(ख) रचन	10
(ब) व्याख्यात्मक-व्याकरण	20
(घ) कवि-मुद्रक (स्पर्श भाग-2)	40
कवि-मुद्रक (संक्षेप भाग-2)	10

- खंड क - अपठित गद्यांश** 20
1. (i) लगभग 300 से 400 शब्दों का एक नद्यंश 12
  2. (ii) लगभग 200 से 300 शब्दों का एक नद्यंश 8
- उपर्युक्त गद्यांशों पर शीर्षकों का चुनाव, विषय-वस्तु का बोध और भाषिक विशेषताओं पर अति लघुतरात्मक प्रश्न पूछे जायेंगे।
- खण्ड ख - रचन** 10
3. (i) पत्र-लेखन (वैयक्तिक पत्र) 5
  4. (ii) अनुच्छेद-लेखन : संकेत बिन्दुओं पर आधाति सप्त-सप्तमिक विषयों पर 80 से 100 शब्दों का एक अनुच्छेद 5
- खण्ड ब - व्याख्यात्मक-व्याकरण** 20
5. (i) शब्द, पद और पदबंध में अंतर, पद परिवर्तन 4
  6. (ii) मिश्र और संयुक्त शब्दों की संरचना और बाल्य रूपान्तरण 4
  7. (iii) सौंध, समस्त (2+2) 4
  8. (iv) मुद्रक्यों और श्लोकधिर्यों का प्रयोग (2+2) 4
  9. (v) अक्षर बाल्यों का रोधन 4

<b>खण्ड ब - पाठ्य-पुस्तक</b>	<b>30</b>
<b>(स्पर्धा)</b>	<b>20 + 20 = 40</b>
10. (i) दो में से एक काल्पात पर आधारित तीन / चार अर्थ-प्रश्न को प्रश्न	6
11. (ii) कविताओं के विषय-बोध और खण्डना पर आधारित चार में से तीन प्रश्न	3+3+3 = 9
12. (iii) कविता के प्रविणतत्व / संकेत से संबंधित दो तबुलरररररररर प्रश्न	3+2 = 5
13. (iv) दो में से एक गद्यररर पर अर्थ-प्रश्न संकेती तीन रर चार प्रश्न	6
14. (v) गद्य-गद्यों के विषय-बोध पर आधारित चार में से तीन प्रश्न	3+3+3 = 9
15. (vi) गद्य गद्यों के विषय / संकेत से संबंधित दो तबुलरररररररर प्रश्न	3+2 = 5
<b>पूरक - पूरररर, संकेतन ढरग 2</b>	<b>10</b>
16. (i) दो में से एक निर्बंधरररररर प्रश्न	4
17. (ii) चार में से तीन तबुलरररररररर प्रश्न	2+2+2 = 6

**निर्धारित पूरररररररर :**

1. स्पर्धा - ढरग 2 एर.सी.ई.आर.टी. द्वारा प्रकशित
2. पूरक पूरररर, संकेतन ढरग 2 - एर.सी.ई.आर.टी. द्वारा प्रकशित

**MANIPURI  
CLASS IX**

**Section-A**

- 1. Grammar :**
  - (i) Phonology-
    - a) Vowel Phoneme
    - b) Consonant Phoneme
    - c) Diphthong
    - d) Syllable
    - e) Consonant Cluster
    - f) Free Variation
  - (ii) Morphology-
    - a) Morpheme
    - b) Root
    - c) Affix
  - (iii) Syntax-
    - a) Word
    - b) Sentence

**Section B**

- 2. Writing**
  - (i) Essay Writing
  - (ii) Letter Writing
  - (iii) Amplification, or other sub skills

**Section C**

- 3. Reading**
  1. Two Passages (unseen)
    - (a) Comprehension
    - (b) Vocabulary

**Course Book (Text Books)**

**Prescribed book :**

Manipuri Khannasi Neinasi Book - 1

Published by the Board of Secondary Education, Manipur - 1998.

Questions on the Text (short answer, very short answer)

Lessons to be studied

All lessons in the text Books except Areiba Munai, Thoujal, Umangda Lammuknaba Muoibana khannaba Maikrob Kharagi Mateng Louba are to be studied.

**Section D**

**Literature**

**Prescribed Book :**

Manipuri Sahitya Leichal Book - 1

Published by the Board of Secondary Education, Manipur, 1998.

**i) Short Story**

- (a) Explanation of the passage from the prescribed text-one
- (b) Questions on the text-two

**Lessons to be studied :**

- 1. Inthokpa - R. K. Shitaljit Singh
- 2. Pukhri Macha - Khumanthem Prakash Singh

**ii) Poetry**

- (a) Explanation of the passage from the text-one
- (b) Question on the text-two

**Poems to be Studied :**

**All the poems except Atiter Srimiti and Taibang Saji in the Text Book are to be studied**

**iii) Prose and Trav elogue**

Questions on the text -Two

Lessons to be studied :

Prose - Tougadaba Thabakta Mai Onsinba Kh. Chaoba Singh

Travelogue - Ningsinglakli Nagaside - T. Thoibi Devi

**iv) Drama**

Questions on the Text-Two

**Lesson to be studied :**

Kamison Lal - Mayanglambam Birmangol Singh

**Prescribed books :**

- 1. Manipuri Khannasi Neinnasi Neinasi Book 1  
Published by the Board of Secondary Education, Manipur, 2002
- 2. Manipuri Sahitya Leishai Book - 1  
Published by the Board of Secondary Education, Manipur, 2002
- 3. Anouba Manipuri Grammar/Manipuri Grammar  
Published by the Board of Secondary of Education, Manipur

**CLASS X**  
**Section - A**

**1. Grammar :**

- (i) Phonology-            a) Vocal Organs  
                              b) Vowel  
                              c) Vowel Classification  
                              d) Consonant  
                              e) Consonant Classification
- (ii) Morphology-        a) Morpheme  
                              b) Allomorph  
                              c) Root  
                              d) Affix
- (iii) Syntax-            a) Word  
                              b) Sentence types - Simple, Complex and Compound

**Section - B**

**2. Writing**

- (a) Essay Writing  
(b) Letter Writing  
(c) Application or other subskills

**Section - C**

**3. Reading**

- (i) Two Passages (unseen)  
    (a) Comprehension  
    (b) Vocabulary

- (ii) Course Book (Text Book)

*Prescribed Text Book :*

*Manipuri Khannasi Neinasi Book II*

Published by the Board of Secondary Education, Manipur, 1998

Questions on the text. (short answer, very short answer)

*Lessons to be studied :*

All lessons in the Text Book are to be studied

**Section - D**

**4. Literature**

*Prescribed Book :*

*Manipuri Sahitya Leichal - Book - II*

Published by the Board of Secondary Education, Manipur 1998.

**i) Short Story :**

- (a) Explanation of the passage from the Text-one  
(b) Questions on the Text-Two

*Lessons to be studied : 02*

1. Chingi I now            R. K. Elangbam  
2. Ilisha Amagi Mahou    N. Kunjamohan Singh

**ii) Poetry**

(a) Explanation of the passage from the text one

(b) Questions on the text (two)

*Poems to be Studied :*

- |                                    |                         |
|------------------------------------|-------------------------|
| 1. Lamgi Chekla Amada              | Kh. Choba Singh         |
| 2. Nanaida Pinare Maktrava Thoujal | H. Nabadwichandra Singh |
| 3. Ching kasi Ngasidi              | L. Samerendra Singh     |
| 4. Ima Nanggi Mahousa              | Nilbir Sharma           |
| 5. Anouba Thunglaba Jiba           | Th. Ioopishak           |
| 6. Ei Amasung Budha                | Yamlebam Ibomcha        |

**iii) Prose and Travelogue**

Questions on the Text-Two

Lessons to be studied :

Prose - Marupki Matou

Manishana Sharma

Travelogue - Mandalegi Kongpham

Hijam Irabot Singh

iv) Drama

a) Questions on the Text - Two

Lessons to be studied :

Karnagi Mama

Ningobam Ibobi Singh

*Prescribed books for Class X :*

- 1. Manipuri Khannasi Neinasi Book - II**  
Published by the Board of Secondary Education, Manipur, 1998.
- 2. Manipuri Sahitya Leichal Book - II**  
Published by the Board of Secondary Education, Manipur, 1998.
- 3. Anoba Manipuri Grammar/ Manipuri Grammar**  
Published by the Board of Secondary Education, Manipur, 1998.

**NEPALI  
CLASS IX**

**One Paper**

**Section-A**

**1. Grammar**

- (i) Pronunciation of letters and their phonetic change in words (Vowel harmony etc.)
- (ii) Parts of Speech (Nouns, Pronouns, Adjectives, Verbs and Indeclinable avyaya)
- (iii) Formation of simple sentence

**Suggested reference :**

*Saral Nepali Vyakaran by Rajnarayan Pradhan and Jagat Chettri  
Published by Shyam Bros. Chowk Bazar, Darjeeling*

2. Comprehension of an unseen prose passage based on some descriptive topic e.g. Games, social events, social events and Family Environment
3. Composition
- (a) **Letter writing**
  - (i) To and from friends and relatives on domestic topics
  - (ii) Applications for leave, fee concession and aid for poor fund etc.

**(b) Essay writing**

Descriptive topics e.g. Ecological description, social events, Games and family environment and abstract matter like unity, morality etc.

**Section B**

**1. Prose**

*Nepali Sahitya Sourav*

*Published by Directorate of Education, Text Book Unit, Sikkim, Gangtok.*

**Lessons to be studied :**

1. Abhagi Guru Prasad Mainali
2. Doshi Chashma Koirala V. P.
3. Frontier Siva Kumar Rai
4. Chitthi Badarinath Bhattarai
5. Bhyangagko Chihan Lainsing Bangadel
6. Chamu Thapa Bhimnidhi Tiwari

**2. Poetry**

*Nepali Sahitya Sourav*

*Published by Direcorate of Education, Text Book Unit, Sikkim, Gangtok.*

**Poems to be studied :**

1. Vasanta Kokil Lekhanath Paudyal
2. Sadichcha Dharanidhar Sharma
3. Karma Balkrishna Sam
4. Aau He Varsha Madhawa Pd. Ghimirey
5. Yo Jindagi Khoe Ke Jindagi Katuwal
6. Katai Yo shir Jhukchha Bhane Mohan Thakuri

3. Rapid Reading  
Katha Vimba Published by Directorate of Education, Gangtok, Sikkim

**Lessons to be studied :**

1. Nirnaya Purana Rai
2. Jadugar Anatoley France
3. Jiwan Yatrama M.M. Gurung
4. Noor Aalam Siva Kumar Rai

*Note : Both short answer and essay type questions will be asked on the prescribed text.*

**CLASS X**  
**Section - A**

**1. Applied Grammar**

- (i) Formation of various kinds and their morphology.
- (ii) Change of part of speech with Upasarga & Pratyaya (Suffix, Affix, etc.)
- (iii) Phrases and Idioms
- (iv) Transformation of sentences
- (v) Samasa

*Suggested references :*

Saral Nepali Vyakaran by Rajnarayan Pradhan and Jagat Chettri  
Published by Shyam Bros. Chowk Bazar, Darjeeling (WB)

2. **Comprehension** of an unseen prose passage based on some descriptive topic e.g. social festivals, memorable events in student's life.
3. **Composition**
  - (a) Letter writing
    - (i) To stranger (placing orders, answers, enquiries/questions)
    - (ii) Applications for job
    - (iii) Letter to editor
    - (iv) Complaints, apologies, requests etc. and
    - (v) Invitation letter and Memorandum
  - (b) Essay writing  
Descriptive topics e.g. Festivals, Journey, Scene, Adventures and Memorable events on students' Life.

**Section - B**

**1. Prose**

*Nepali Sahitya Sourav*

Published by Directorate of Education, Text Book Unit, Sikkim, Gangtok.

Lessons to be studied :

- |                            |                              |
|----------------------------|------------------------------|
| 1. Tyo Pheri Pharkala      | Bhawani Bhikshu              |
| 2. Ratbhari Huri Chalyo    | Indra Pd. Rai                |
| 3. Lahuri Bhanishi         | Ramesh Vikal                 |
| 4. Sojha                   | Hridayachandra Singh Pradhan |
| 5. Bharatendu Ra Motiranko | D. R. Rimsina                |
| 6. Ranadullav              | Balakrishna sam              |

**2. Poetry**

*Nepali sahitya sourav*

Published by Directorate of Education, Text Book Unit, Sikkim, Gangtok.

Poems to be studied :

- |    |                          |                       |
|----|--------------------------|-----------------------|
| 1. | Bhanu Astaya Pachhi      | Lekhanath Paudyal     |
| 2. | Garib                    | Laxmi Pd. Deokota     |
| 3. | Kasari Chhattis Lagen    | Siddhicharan Shrestha |
| 4. | Santosh                  | Bhimnidhi Tiwari      |
| 5. | Mrityu Kaamana Kehi Mera | Agamsing Giri         |
| 6. | Akash Ko Tara ke Tara    | Hari Bhakta Katwal    |
| 7. | Balk Chooroko Hata       |                       |
|    | Sumsumyaunda             | Druwa                 |

**4. Rapid Reading**

**Katha Vimba** Published by Directorate of Education, Gangtok (Sikkim)

- |    |             |                     |
|----|-------------|---------------------|
| 1. | Kaikei      | Balkrishna Sam      |
| 2. | Paribanda   | Puskar Samser       |
| 3. | Kabuliwalla | Rabindranath Tagore |
| 4. | Autim pat   | O Henry             |

Both short answer type and Essay type questions will be asked on the prescribed text.

**ALTERNATIVE ENGLISH  
CLASS IX**

**Section A**

1. **Grammar**
  - (a) Parts of Speech
  - (b) Articles
  - (c) Tenses
2. **Composition**
  - (a) Essay Writing
  - (b) Letter Writing

**Section B**

3. **Poetry**
  - (a) Explanation of text passage
  - (b) Substance writing
  - (c) General questions on the text

**Poems to be studied :**

- |    |                           |                 |
|----|---------------------------|-----------------|
| 1. | The Pigtail               | W.M. Thackeray  |
| 2. | Lean Out of the Window    | James Joyce     |
| 3. | How Beautiful is the Rain | H.W. Longfellow |
| 4. | The Arrow and the Song    | H.W. Longfellow |
| 5. | Uphill                    | C.G. Rossetti   |
| 6. | To Daffodils              | Rober Herrick   |
| 7. | Heights and Depths        | William Canton  |

4. **Prose**
  - (a) Explanation of the text passage
  - (b) General questions on the text
  - (c) Short questions based on the text

**Prose to be studied**

- |    |                         |                 |
|----|-------------------------|-----------------|
| 1. | Wonders are Many        | Gilbert Highet  |
| 2. | Tulips                  | Joseph Addison  |
| 3. | The Exploits of Hanuman | J.E.B. Gray     |
| 4. | The Conjuror's Revenge  | Stephen Leacock |
| 5. | Exploring Space         | Colin Ronan     |
| 6. | Albertt Schweitzer      | Roger Kent      |
| 7. | Man of Everest          | Ronald Mackin   |

5. **Rapid Reader** (The Adventures of Tom Sawyer)
  - (a) Short questions based on different themes
  - (b) Description of characters

**Books prescribed :**

- (i) A Choice of Prose  
Published by Oxford University Press
- (ii) Poetry for pleasure  
Published by Oxford University Press
- (iii) The Adventures of Tom Sawyer  
Published by Nayan Tara Prakash

## CLASS X

### Section A

1. **Grammar**
  - (a) Parts of Speech
  - (b) Punctuation
  - (c) Explanation and use of Idioms and Phrases
2. **Composition**
  - (a) Essay Writing
  - (b) Precis writing of unseen passage

### Section B

3. **Poetry**
  - (a) Explanation of text passage
  - (b) Substance writing
  - (c) General questions on the text

#### Poems to be studied :

- |    |                                |                       |
|----|--------------------------------|-----------------------|
| 1. | The Slave's Dream              | H.W. Longfellow       |
| 2. | The old Woman                  | Joseph Campbell       |
| 3. | A Fine Day                     | Michael Drayton       |
| 4. | She Walks in Beauty            | Lord Byron            |
| 5. | I Vow to Thee, My Country      | Sir Cecil Spring Rice |
| 6. | Going Down - Hill on a Bicycle | H.C. Beeching         |
| 7. | I Remember, I Remember         | Thomas Hood           |

4. **Prose**
  - (a) Explanation of the text passage
  - (b) General questions on the text
  - (c) Short questions based on the text

#### Prose to be studied

- |    |                                  |                   |
|----|----------------------------------|-------------------|
| 1. | On Fame                          | Hilaire Belloc    |
| 2. | The Advantages of Having One Leg | G.K. Chesterton   |
| 3. | The Happy Prince                 | Oscar Wilde       |
| 4. | The Muscular Son-in-Law          | P.K. Mukhopadhyay |
| 5. | Illnesses that make us Healthier | J.B.S. Haldane    |
| 6. | Leo Tolstoy                      | Ronald Seth       |
| 7. | A Shot in the Dark               | Jim Corbett       |

5. **Rapid Reader (Uncle Tom's Cabin)**
  - (a) Short questions based on different themes
  - (b) Description of characters

#### Books prescribed :

- (i) A Choice of Prose  
Published by Oxford University Press
- (ii) Poetry for pleasure  
Published by Oxford University Press
- (iii) Uncle Tom's Cabin - Harriet Beecher Stowe  
Published by Oxford University Press