Word limit : one or two lines for each question if an extract is given. If an extract is not given, the word limit will be roughly 75 words.   04

16   One out of two questions from the drama tests based on theme, character, plot. (50-75 words)   04

17   One out of two questions based on one of the prose texts from the prescribed reader to test global comprehension and extrapolation beyond the set text.

Word limit : 50-75 words   04

18   One out of two questions based on the prose texts from the prescribed reader to test global comprehension and extrapolation beyond the set text.

Word limit : 150-175 words   08

Questions will test comprehension at different levels : literal, inferential and evaluative.

Prescribed Books/Materials

1.	Interact in English — X Main Course Book	Revised edition	Published by CBSE
2.	Interact in English—X Literature Reader	Revised edition	Delhi-110092
3.	Interact in English—X Workbook	Revised edition	
4.	Interact in English—X Audio Cassette	Revised edition	Produced by CBSE Delhi

Support Material :

5.   Interact in English—Teacher's Book

ENGLISH - LANGUAGE AND LITERATURE

(Code No. 184)
SECONDARY (CLASSES IX-X)

Background

Traditionally, language-learning materials beyond the initial stages have been sourced from literature: prose,fiction and poetry. While there ia a trend for inclusion of a wider range of contemporary and authentic texts, accessible and culturally appropriate pieces of literature should play a pivotal role at the secondary stage of education. The English class should not be seen as a place merely to read poems and stories in, but an area of activities to develop the learner's imagination as a major aim of language study, and to equip the learner with communicative skills to perform various language functions through speech and writing.

Objectives

The general objectives at this stage are :

- to build greater confidence and proficiency in oral and written communication
- to develop the ability and knowledge required in order to engage in independent reflection and inquiry
- to use appropriate English to communicate in various social settings
- equip learners with essential language skills to question and to articulate their point of view.
- to build competence in the different registers of Englilsh
- 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, organise and edit their own work and work doneby the peers

At the end of this stage learners will be able to do the following :

- give a brief oral description of events / incidents of topical interest
- retell the contents of authentic audio texts (weather reports, public announcements, simple advertisements, short interviews, etc.)
- participate in conversations, discussions, etc. on topics of mutual interest in non-classroom situations
- narrate the story depicted pictorially or in any other non-verbal mode
- respond in writing to business letters, official communications

- read and identify the main points / significant details of texts like scripts of audio-video interviews, discussions, debates etc.

- write without prior preparation on a given topic and be able to defend or explain the position taken / views expressed

- write a summary of short lectures on familiar topics by making / taking notes

- write an assessment of different points of view expressed in a discussion / debate

- read poems effectively (with proper rhythm and intonation)

- to transcode information from a graph / chart to a description / report

Language Items

In addition to consolidating the grammatical items practised earlier, the courses at secondary level will seek to reinforce the following explicitly :

- sequence of tenses

- reported speech in extended texts

- modal auxiliaries (those not covered at upper primary)

- non-finites (infinitives, gerunds, participles)

- conditional clauses

- complex and compound sentences

- phrasal verbs and prepositional phrases

- cohesive devices

- punctuation (semicolon, colon, dash, hyphen, parenthesis or use of brackets and exclamation mark)

Methods and Techniques

The methodology will be based on a multi-skill, activity based, learner centred approach. Care would be taken to fulfil the functional (communicative), literary (aesthetic) and cultural (sociological) needs of the learner. In this situation the teacher is the facilitator of learning, s(he) presents language items, contrives situations which motivates the child to use English for the purposes of communication and expression. Aural-oral teaching and testing is an integral feature of the teaching-learning process. The electronic and print media could be used extensively. The evaluation procedure should be continuous and comprehensive. A few suggested activities are :

- Role playing

- Simulating real-to-life situations

- Dramatising and miming

- Problem solving and decision making

- Interpreting information given in tabular form and schedule

- Using newspaper clippings

- Borrowing situations from the world around the learners, from books and from other disciplines

- Using language games, riddles, puzzles and jokes

- Interpreting pictures / sketches / cartoons

- Debating and discussing

- Narrating and discussing stories, anecdotes, etc.

- Reciting poems

- Working in pairs and groups

- Using media inputs - computer, television, video cassettes, tapes, software packages.

ENGLISH - LANGUAGE AND LITERATURE
(Code No. 184)
Examination Specifications
CLASS IX

One Paper	3 Hours	Marks : 100

SECTION A : READING	20 Marks	30 Periods

1 & 2 Two unseen passages of total 500 words with a variety of questions including 4 marks for vocabulary.

Only prose passages will be used. One will be factual and the other will be literary.

Passage 1 - 200 words (8 marks) - Four or five comprehension questions

Passage 2 - 300 words (12 marks) - Four or five compehension questions and two questions on vocabulary. Marks for vocabulary will not exceed 4.

SECTION B : WRITING	20 Marks	40 Periods

3. Letter Writing - One letter in not more than 80 words based on provided verbal stimulus and context. Types of letter : Informal; Personal such as to family and friends. Formal : Letters of complaint, enquiry, request & application   8 Marks

4. Writing a short paragraph on a given outline/topic in about 60 words   4 Marks

5. Writing a short writing task based on a verbal and / or visual stimulus. (diagram, picture, graph, map, chart, flow chart etc.) Maximum words 80   8 marks

SECTION C : GRAMMAR	15 Marks	45 Periods

Questin No. 6-11

A variety of short questions involving the use of particular structures within a context. Text types used will include gap-filling, sentence-completion, sentence-reordering, dialogue-completion and sentence-transformation (including combining sentences). The Grammar syllabus will include the following areas in class IX :

1. Tenses (present with extension)

2. Modals (have to / had to, must, should, need, ought to and their negative forms)

3. Use of passive voice

4. Subject-verb concord

5. Reporting

(i)   Commands and requests

(ii)   Statements

(iii)   Questions

6. Clauses :

(i)   Noun-clauses

(ii)   Adverb Clauses of condition and time

(iii)   Relative Clauses

7. Determiners, and

8. Prepositions

Note : No separate marks allotted for any of grammatical items listed above.

SECTION D : TEXT BOOKS   45 Marks   95 Periods

'Beehive' - NCERT Textbook for Class IX

Prose   20 Marks

12 & 13 Two extracts from different prose lessons included in Textbook (Approximately   10 Marks
        100 words each) 5X2

        These extracts chosen from different lessons will be literary and discursive in nature

        Each extract will be of 5 marks. One mark in each extract will be for vocabulary. 4 marks in each passage
        will be used for testing local and global comprehension besides a question on interpretation.

14.   One out of two questions extrapolative in nature based on any one of the prose lessons from Textbook
        to be answered in about 80 words.   6 Marks

15.   One question on Drama Text (local and global comprehension question) (30-40 words)   4 Marks

Poetry   10 Marks

16.   One extract from a poem from the prescribed reader followed by two or three questions to test the local
        and global comprehension of the set text. The extrct will carry four marks.   4 Marks

17.   Two out of three short answer type questions on interpretation of themes and ideas   6 Marks

'Moments' - NCERT Supplementary Reader for Class IX   15 Marks

18.   One out of two questions from Supplementary Reader to interpret, evaluate and analyse character, plot or
        situations occurring in the lessons to be answered in about 100 words   8 Marks

19. One out of two very short answer type questions based on factual aspects of the lessons to be answered in 20-30 words   3 Marks

20. One out of two short answer type questions of interpretative and evaluative nature based on lessons to be answered in 30-40 words   4 Marks

To the teachers

NOTE : Teachers are advised to :

(i) encourage classroom interaction among peers, students and teachers through activities such as role play, group work etc.

(ii) reduce teacher-talking time to the minimum.

(iii) Take up questions for discussion to encourage pupils to participate; and to marshal their ideas and express and defend their views, and

(iv) Use scale of assessment for conversation skills for testing the students for continuous assessment.

Besides measuring attainment, tests serve the dual purpose of diagnosing mistakes and areas of non-learning. To make evaluation a true index of learners' attainment each language ablity is to be tested through a judicious mixture of different types of questions. In additin to the formal examination, continuous and comprehensive assessment is essential to measure the level of attainment in the four language skills and the learners' communicative capability. Continuous evaluation will be done through tests, assignments and projects.

Prescribed Books

1. 'Beehive' - Textbook for Class IX   } Published by NCERT,
2. 'Moments' - Supplementary Reader for Class IX   } Sri Aurobindo Marg, New Delhi.

Examination Specifications
Class X

One Paper	3 Hours	Marks : 100

SECTION A : READING	20 Marks	30 Periods

1 & 2 two unseen passages of total 500 words with a variety of questions including 4 marks for vocabulary.

Only prose passages will be used. One will be factual and the other will be literary.

Passage 1 - 200 words (8 marks) - Four or five comprehension questions

Passage 2 - 300 words (12 marks)-Four or five comprehension questions and two questions on vocabulary. Marks for vocabulary will not exceed 4 marks.

SECTION B : WRITING	20 Marks	40 Periods

3. Letter Writing - One letter based on provided verbal stimulus and context.   8 Marks

    Type of letter : Informal: Personal such as to family and friends Formal : Letter of complaints, enquiries, requests, applications

4. Writing a short paragraph on a given outline / topic in about 60 words   4 Marks

5. Composition : A short writing task based on a verbal and / or visual stimulus. (diagram, picture, graph, map, chart, table, flow chart etc.)   8 Marks

Maximum words 80

SECTION A : READING	15 Marks	45 Periods

Question No. 6-11

A variety of short questions involving the use of particular structures within a context. Test types used will include cloze, gap-filling, sentence-completion, sentence-reordering, dialogue-completion and sentence-transformation (including combining sentences). The Grammar syllabus will include the following areas for teaching:

1. Use of non-finites.

2. Sentence connectors : as, since, while, then, just because, just, until.

3. Clauses with what, where and how.

4. Past Tense.

5. Modals : can, could, may, must, might.

Note : All other areas covered in Class IX will also be tested in Class X as this is an integrated course for this area of learning.

SECTION D : TEXT BOOKS   45 Marks   95 Periods

First Flight - NCERT Textbook for Class X

Prose   20 Marks

12 & 13   Two extracts from different prose lessons included in Textbook
           (Approximately 100 words each) 5x2   10 Marks

           These extracts chosen from different lessons will be literary and discursive in nature

           Each extract will be of 5 marks. One mark in each extract will be for vocabulary. 4 marks in each
           passage will be used for testing local and global comprehension besides a question on interpretation.

14.   One out of two questons extrapolative in nature based on any one of the prose lessons
           from Textbook to be answered in about 80 words.   6 Marks

15.   One out of two questions on Drama Text (local and global comprehension question)
           (30-40 words)   4 Marks

Poetry   10 Marks

16.   One extract from a poem from the prescribed reader followed by two or three questions to test the local
           and global comprehension of the set text. The extract will carry four marks.   4 Marks

17.   Two out of three short answer type questions on interpretation of themes and ideas contained in the
           poems to be answered in 30-40 words each.   6 Marks

Foot Prints without Feet - NCERT Supplementary Reader for Class X   15 Marks

18.   One out of two questions from Supplementary Reader to interpret, evaluate and analyse character, plot
           or situations occurring in the lessons to be answered in about 100 words.   8 Marks

19.   One out of two short answer type questions of interpretative and evaluative nature based on lessons to
           be answered in 30-40 words   4 Marks

20.   One out of two short answer type questions based on factual aspects of the lessons to be answered in
           20-30 words.   3 Marks

Prescribed Books

1.   First Flight - Textbook for Class X   }   Published by NCERT,
2.   Foot Prints without Feet - Supplementary Reader for Class X   Sri Aurobindo Marg, New Delhi.

3. MATHEMATICS
(CODE NO. 041)

The Syllabus in the subject of Mathematics has undergone changes from time to time in accordance with growth of the subject and emerging needs of the society. The present revised syllabus has been designed in accordance with National Curriculum Framework 2005 and as per guidelines given in Focus Group on Teaching of Mathematics which is to meet the emerging needs of all categories of students. Motivating the topics from real life problems and other subject areas, greater emphasis has been laid on applications of various concepts.

The curriculum at Secondary stage primarily aims at enhancing the capacity of students to employ Mathematics in solving day-to-day life problems and studying the subject as a separate discipline. It is expected that students should acquire the ability to solve problems using algebraic methods and apply the knowledge of simple trigonometry to solve problems of heights and distances. Carrying out experiments with numbers and forms of geometry, framing hypothesis and verifying these with further observations form inherent part of Mathematics learning at this stage. The proposed curriculum includes the study of number system, algebra, geometry, trigonometry, mensuration, statistics, graphs and coordinate geometry etc.

The teaching of Mathematics should be imparted through activities which may involve the use of concrete materials, models, patterns, charts, pictures posters, games, puzzles and experiments.

OBJECTIVES

The broad objectives of teaching of Mathematics at secondary stage are to help the learners to:

l   consolidate the Mathematical knowledge and skills acquired at the upper primary stage;

l   acquire knowledge and understanding, particularly by way of motivation and visualization, of basic concepts, terms, principles and symbols and underlying processes and skills.

l   develop mastery of basic algebraic skills;

l   develop drawing skills;

l   feel the flow of reasons while proving a result or solving a problem.

l   apply the knowledge and skills acquired to solve problems and wherever possible, by more than one method.

l   to develop positive ability to think, analyze and articulate logically;

l   to develop awareness of the need for national integration, protection of environment, observance of small family norms, removal of social barriers, elimination of sex biases;

l   to develop necessary skills to work with modern technological devices such as calculators, computers etc;

ı to develop interest in Mathematics as a problem-solving tool in various fields for its beautiful structures and patterns, etc;

ı to develop reverence and respect towards great Mathematicians for their contributions to the field of Mathematics.

ı to develope interest in the subject by participating in related competitions.

ı to acquaint students with different aspects of mathematics used in daily life.

ı to develop an interest in students to study mathematics as a discipline.

Course Structure
Class IX

One Paper   Time : 3 Hours   Marks : 80

UNITS		MARKS
I.	NUMBER SYSTEMS	06
II.	ALGEBRA	20
III.	COORDINATE GEOMETRY	06
IV.	GEOMETRY	22
V.	MENSURATION	14
VI.	STATISTICS AND PROBABILITY	12
	TOTAL	80

UNIT I : NUMBER SYSTEMS

1. REAL NUMBERS   (20) Periods

Review of representation of natural numbers, integers, rational numbers on the number line. Representation of terminating / non-terminating recurring decimals, on the number line through successive magnification. Rational numbers as recurring/terminating decimals.

Examples of nonrecurring / non terminating decimals such as $\sqrt{2}, \sqrt{3}, \sqrt{5}$ etc. Existence of non-rational

numbers (irrational numbers) such as $\sqrt{2}$, $\sqrt{3}$ and their representation on the number line. Explaining that every real number is represented by a unique point on the number line and conversely, every point on the number line represents a unique real number.

Existence of $\sqrt{x}$ for a given positive real number x (visual proof to be emphasized).

Definition of nth root of a real number.

Recall of laws of exponents with integral powers. Rational exponents with positive real bases (to be done by particular cases, allowing learner to arrive at the general laws.)

Rationalization (with precise meaning) of real numbers of the type (& their combinations)

$$\frac{1}{a + b\sqrt{x}} \quad \& \quad \frac{1}{\sqrt{x} + \sqrt{y}} \quad \text{where x and y are natural number and a, b are integers.}$$

UNIT II : ALGEBRA

1. POLYNOMIALS   (25) Periods

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. Factorization 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 $(x + y + z)^2 = x^2 + y^2 + z^2 + 2xy + 2yz + 2zx$, $(x \pm y)^3 = x^3 \pm y^3 \pm 3xy (x \pm y)$.

$x^3 + y^3 + z^3 - 3xyz = (x + y + z) (x^2 + y^2 + z^2 - xy - yz - zx)$ and their use in factorization of polymonials. Simple expressions reducible to these polynomials.

2. LINEAR EQUATIONS IN TWO VARIABLES   (12) Periods

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. Examples, problems from real life, including problems on Ratio and Proportion and with algebraic and graphical solutions being done simultaneously.

UNIT III : COORDINATE GEOMETRY

1. COORDINATE GEOMETRY   (9) Periods

The Cartesian plane, coordinates 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 IV : GEOMETRY

1. INTRODUCTION TO EUCLID'S GEOMETRY   (6) Periods

History - Euclid and geometry in India. Euclid's method of formalizing observed phenomenon into rigorous mathematics with definitions, common/obvious notions, axioms/postulates and theorems. The five postulates of Euclid. Equivalent versions of the fifth postulate. Showing the relationship between axiom and theorem.

1. Given two distinct points, there exists one and only one line through them.

2. (Prove) two distinct lines cannot have more than one point in common.

2. LINES AND ANGLES   (10) Periods

1. (Motivate) If a ray stands on a line, then the sum of the two adjacent angles so formed is 180° and the converse.

2. (Prove) If two lines intersect, the vertically opposite angles are equal.

3. (Motivate) Results on corresponding angles, alternate angles, interior angles when a transversal intersects two parallel lines.

4. (Motivate) Lines, which are parallel to a given line, are parallel.

5. (Prove) The sum of the angles of a triangle is 180°.

6. (Motivate) If a side of a triangle is produced, the exterior angle so formed is equal to the sum of the two interiors opposite angles.

3. TRIANGLES   (20) Periods

1. (Motivate) Two triangles are congruent if any two sides and the included angle of one triangle is equal to any two sides and the included angle of the other triangle (SAS Congruence).

2. (Prove) Two triangles are congruent if any two angles and the included side of one triangle is equal to any two angles and the included side of the other triangle (ASA Congruence).

3. (Motivate) Two triangles are congruent if the three sides of one triangle are equal to three sides of the other triangle (SSS Congruene).

4. (Motivate) Two right triangles are congruent if the hypotenuse and a side of one triangle are equal (respectively) to the hypotenuse and a side of the other triangle.

5. (Prove) The angles opposite to equal sides of a triangle are equal.

6. (Motivate) The sides opposite to equal angles of a triangle are equal.

7. (Motivate) Triangle inequalities and relation between 'angle and facing side' inequalities in triangles.

4.   QUADRILATERALS   (10) Periods

  1. (Prove) The diagonal divides a parallelogram into two congruent triangles.

  2. (Motivate) In a parallelogram opposite sides are equal, and conversely.

  3. (Motivate) In a parallelogram opposite angles are equal, and conversely.

  4. (Motivate) A quadrilateral is a parallelogram if a pair of its opposite sides is parallel and equal.

  5. (Motivate) In a parallelogram, the diagonals bisect each other and conversely.

  6. (Motivate) In a triangle, the line segment joining the mid points of any two sides is parallel to the third side and (motivate) its converse.

5.   AREA   (4) Periods

 Review concept of area, recall area of a rectangle.

  1. (Prove) Parallelograms on the same base and between the same parallels have the same area.

  2. (Motivate) Triangles on the same base and between the same parallels are equal in area and its converse.

6.   CIRCLES   (15) Periods

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

  1. (Prove) Equal chords of a circle subtend equal angles at the center and (motivate) its converse.

  2. (Motivate) The perpendicular from the center of a circle to a chord bisects the chord and conversely, the line drawn through the center of a circle to bisect a chord is perpendicular to the chord.

  3. (Motivate) There is one and only one circle passing through three given non-collinear points.

  4. (Motivate) Equal chords of a circle (or of congruent circles) are equidistant from the center(s) and conversely.

  5. (Prove) The angle subtended by an arc at the center is double the angle subtended by it at any point on the remaining part of the circle.

  6. (Motivate) Angles in the same segment of a circle are equal.

  7. (Motivate) If a line segment joining two points subtendes equal angle at two other points lying on the same side of the line containing the segment, the four points lie on a circle.

  8. (Motivate) The sum of the either pair of the opposite angles of a cyclic quadrilateral is $180°$ and its converse

7.   CONSTRUCTIONS   (10) Periods

  1. Construction of bisectors of line segments & angles, $60°$, $90°$, $45°$ angles etc., equilateral triangles.

2. Construction of a triangle given its base, sum/difference of the other two sides and one base angle.

3. Construction of a triangle of given perimeter and base angles.

UNIT V : MENSURATION

1. AREAS (4) Periods

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

2. SURFACE AREAS AND VOLUMES (10) Periods

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

UNIT VI : STATISTICS AND PROBABILITY

1. STATISTICS (13) Periods

Introduction to Statistics : Collection of data, presentation of data — tabular form, ungrouped / grouped, bar graphs, histograms (with varying base lengths), frequency polygons, qualitative analysis of data to choose the correct form of presentation for the collected data. Mean, median, mode of ungrouped data.

2. PROBABILITY (12) Periods

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 examples used in the chapter on statistics).

INTERNAL ASSESSMENT   20 Marks

Evaluation of activities   10 Marks
Project Work   05 Marks
Continuous Evaluation   05 Marks

One Paper   Time : 3 Hours   Marks : 80

UNITS		MARKS
I.	NUMBER SYSTEMS	04
II.	ALGEBRA	20
III.	TRIGONOMETRY	12
IV.	COORDINATE GEOMETRY	08
V.	GEOMETRY	16
VI.	MENSURATION	10
VII.	STATISTICS AND PROBABILITY	10
	TOTAL	80

UNIT I : NUMBER SYSTEMS

1.   REAL NUMBERS   (15) Periods

Euclid's division lemma, Fundamental Theorem of Arithmetic - statements after reviewing work done earlier and after illustrating and motivating through examples, Proofs of results - irrationality of $\sqrt{2}$, $\sqrt{3}$, $\sqrt{5}$, decimal expansions of rational numbers in terms of terminating/non-terminating recurring decimals.

UNIT II : ALGEBRA

1.   POLYNOMIALS   (6) Periods

Zeros of a polynomial. Relationship between zeros and coefficients of a polynomial with particular reference to quadratic polynomials. Statement and simple problems on division algorithm for polynomials with real coefficients.

2.   PAIR OF LINEAR EQUATIONS IN TWO VARIABLES   (15) Periods

Pair of linear equations in two variables. Geometric representation of different possibilities of solutions/ inconsistency.

Algebraic conditions for number of solutions. Solution of pair of linear equations in two variables algebraically - by substitution, by elimination and by cross multiplication. Simple situational problems must be included. Simple problems on equations reducible to linear equations may be included.

3.   QUADRATIC EQUATIONS   (15) Periods

Standard form of a quadratic equation $ax^2 + bx + c = 0$, $(a \neq 0)$. Solution of the quadratic equations (only real roots) by factorization and by completing the square, i.e. by using quadratic formula. Relationship between discriminant and nature of roots.

Problems related to day to day activities to be incorporated.

4.   ARITHMETIC PROGRESSIONS   (8) Periods

Motivation for studying AP. Derivation of standard results of finding the nth term and sum of first n terms.

UNIT III : TRIGONOMETRY

1.   INTRODUCTION TO TRIGONOMETRY   (12) Periods

Trigonometric ratios of an acute angle of a right-angled triangle. Proof of their existence (well defined); motivate the ratios, whichever are defined at $0°$ & $90°$. Values (with proofs) of the trigonometric ratios of $30°, 45°$ & $60°$. Relationships between the ratios.

2.   TRIGONOMETRIC IDENTITIES   (16) Periods

Proof and applications of the identity $\sin^2 A + \cos^2 A = 1$. Only simple identities to be given. Trigonometric ratios of complementary angles.

3.   HEIGHTS AND DISTANCES   (8) Periods

Simple and believable problems on heights and distances. Problems should not involve more than two right triangles. Angles of elevation / depression should be only $30°, 45°, 60°$.

UNIT IV : COORDINATE GEOMETRY

1.   LINES (In two-dimensions)   (15) Periods

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

UNIT V : GEOMETRY

1.   TRIANGLES   (15) Periods

Definitions, examples, counter examples 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 two sides of a triangle in the same ratio, the line is parallel to the third side.

3.   (Motivate) If in two triangles, the corresponding angles are equal, their corresponding sides are proportional and the triangles are similar.

4.   (Motivate) If the corresponding sides of two triangles are proportional, their corresponding angles are equal and the two triangles are similar.

5.   (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.

6.   (Motivate) If a perpendicular is drawn from the vertex of the right angle of a right triangle to the hypotenuse, the triangles on each side of the perpendicular are similar to the whole triangle and to each other.

7.   (Prove) The ratio of the areas of two similar triangles is equal to the ratio of the squares on their corresponding sides.

8.   (Prove) In a right triangle, the square on the hypotenuse is equal to the sum of the squares on the other two sides.

9.   (Prove) 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 traingle.

2.   CIRCLES   (8) Periods

Tangents to a circle motivated by chords drawn from points coming closer and closer to the point.

1.   (Prove) The tangent at any point of a circle is perpendicular to the radius through the point of contact.

2.   (Prove) The lengths of tangents drawn from an external point to circle are equal.

3.   CONSTRUCTIONS   (8) Periods

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

2.   Tangent to a circle from a point outside it.

3.   Construction of a triangle similar to a given triangle.

UNIT VI : MENSURATION

1.   AREAS RELATED TO CIRCLES   (12) Periods

Motivate the area of a circle; area of sectors and segments of a circle. Problems based on areas and perimeter / circumference of the above said plane figures. (In calculating area of segment of a circle, problems should be restricted to central angle of 60º, 90º & 120º only. Plane figures involving triangles, simple quadrilaterals and circle should be taken.)

2.   SURFACE AREAS AND VOLUMES   (12) Periods

(i) 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.

(ii) 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 VII : STATISTICS AND PROBABILITY

1. STATISTICS   (15) Periods

Mean, median and mode of grouped data (bimodal situation to be avoided). Cumulative frequency graph.

2. PROBABILITY   (10) Periods

Classical definition of probability. Connection with probability as given in Class IX. Simple problems on single events, not using set notation.

INTERNAL ASSESSMENT	20 Marks
Evaluation of activities	10 Marks
Project Work	05 Marks
Continuous Evaluation	05 Marks

4. SCIENCE

(Code No. 086 / 090)

The subject of Science plays an important role in developing in children well-defined abilities in cognitive, affective and psychomotor domains. It augments the spirit of enquiry, creativity, objectivity and asthetic sensibility.

Whereas the upper primary stage demands that plentiful opportunities should be provided to the students to engage them with the processes of science like observing, recording observations, drawing, tabulation, plotting graphs etc., the secondary stage expects abstraction and quantitative reasoning to occupy a more central place in the teaching and learning of Science. Thus, the idea of atoms and molecules being the building blocks of matter makes its appearance, as does Newton's law of Gravitation.

The present syllabus has been designed around six broad themes viz. Food, Materials, the world of the living, how things work, moving things, people and ideas, natural phenomenon and natural reasources. Special care has been taken to avoid temptation of adding too many concepts than can be comfortably learnt in the given time frame. No attempt has been made to be comprehensive.

At this stage, while science is still a common subject, the disciplines of Physics, Chemistry and Biology begin to emerge. The students should be exposed to experiences as well as modes of reasoning that are typical of the subject.

COURSE STRUCTURE
CLASS IX (THEORY)

One Paper	Time : 2½ hours.	Marks : 60

Unit		Marks
I.	Food	05
II.	Matter - Its nature and behaviour	15
III.	Organisation in living world	13
IV.	Motion, Force and Work	20
V.	Our Environment	07
	Total	60

Theme : Food (10 Periods)

Unit 1 : Food

Plant and animal breeding and selection for quality improvement and management ; use of fertilizers, manures; protection from pests and diseases; organic farming.

Theme : Materials (50 Periods)
Unit 2 : Matter - Nature and behaviour

Definition of matter; solid, liquid and gas; characteristics - shape, volume, density; change of state-melting (absorption of heat), freezing, evaporation (Cooling by evaporation), condensation, sublimation.

Nature of matter : Elements, compounds and mixtures. Heterogenous and homogenous mixtures, colloids and suspensions.

Particle nature, basic units : 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 atom : Electrons, protons and neutrons; Isotopes and isobars.

Theme : The World of the living (45 Periods)
Unit 3 : Organization in the living world.

Biological Diversity : 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, Bryo phyta, Pteridophyta, gymnosperms and Angiosperms). Major groups of animals (salient features) (Non-chordates upto phyla and chordates upto classes).

Cell - Basic Unit of life : Cell as a basic unit of life; prokaryotic and eukaryotic cells, multicellular organisms; cell membrane and cell wall, cell organelles; chloroplast, mitochondria, vacuoles, ER, golgi apparatus; nucleus, chromosomes - basic structure, number.

Tissues, organs, organ systems, organism.

Structure and functions of animal and plant tissues (four types in animals; merismatic and permanent tissues in plants).

Health and diseases : Health and its failure. Disease and its causes. Diseases caused by microbes and their prevention - Typhoid, diarrhoea, malaria, hepatitis, rabies, AIDS, TB, polio; pulse polio programme.

Transport of materials in the living systems : Diffusion / exchange of substances between cells and their environment and between the cells themselves in the living system; role in nutrition, water and food transport, excretion, gaseous exchange.

Theme : Moving things, people and ideas (60 Periods)
Unit 4 : Motion, Force and Work

Motion : 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 : Gravitation; universal law of gravitation, force of gravitation of the earth (gravity), acceleration due to gravity; mass and weight; free fall.

Work, Energy and Power : Work done by a force, energy, power; kinetic and potential energy; law of conservation of energy.

Floatation : Thrust and pressure. Archimedes' principle, buoyancy, elementary idea of relative density.

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).

Theme : Natural Resources (15 Periods)
Unit 5 : Our Environment

Physical 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

PRACTICALS
LIST OF EXPERIMENTS

Marks : 40 (20 + 20)

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 solvant.

      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.

SCHEME OF EVALUATION

Multiple choice type question written test (School based) : 20 Marks

Hands-on practicals examination (school based) : 20 Marks

CLASS X
(Theory)

One Paper   Time : 2½ hours   Marks : 60

	Unit	Marks
I.	Chemical Substances	18
II.	World of living	16
III.	Effects of Current	10
IV.	Light	8
V.	Natural Resources	8
	Total	60

Theme : Materials   (55 Periods)

Unit 1 : 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.

Theme : The world of the living   (50 Periods)
Unit 2 : 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.

Theme : How things work.   (35 Periods)
Unit 3 : Effects of Current

Potential, Potential difference, Ohm's law; Series combination of resistors, parallel combination of resistors; Power dissipation due to current; Inter relation 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. Electro magnetic induction. Induced potential difference, Induced current. Direct current. Alternating current; frequency of AC. Advantage of AC over DC. Domestic electric circuits.

Theme : Natural Phenomena   (20 Periods)
Unit 4 : 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.

Theme : Natural Resources (20 Periods)

Unit 5 : 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

Marks : 40 (20 + 20)

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 lens

       by 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 SO_2 gas, observe its following properties and draw inferences in respect of

    i) odour

    ii) solubility in water

    iii) effect on litmus paper

    iv) action on acidified potassium dichromate solution.

14. a) To observe the action of Zn, Fe, Cu and Al metals on the following salt solutions.

    i) $ZnSO_4$ (aq.)

    ii) $FeSO_4$ (aq.)

    iii) $CuSO_4$ (aq.)

    iv) $Al_2(SO_4)_3$ (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) :

    i) odour

    ii) solubility in water

    iii) effect on litmus

    iv) reaction with sodium bicarbonate

SCHEME OF EVALUATION :

External Examination (to be conducted by the Board through multiple choice type written test)   20 Marks

School-based hands-on practical examination.   20 Marks

5. SOCIAL SCIENCE

CODE NO. 087

RATIONALE

Social Sciences is a compulsory subject upto secondary stage of school education. It is an integral component of general education because it helps the learners in understanding the environment in its totality and developing a broader perspective and an empirical, reasonable and humane outlook. This is of crucial importance because it helps them grow into well-informed and responsible citizens with necessary attributes and skills for being able to participate and contribute effectively in the process of development and nation-building.

The social sciences curriculum draws its content mainly from geography, history, civics and economics. Some elements of sociology and commerce are also included. Together they provide a comprehensive view of society-over space and time, and in relation to each other. Each subject's distinct methods of enquiry help the learners study society from different angles and form a holistic view.

OBJECTIVES

The main objectives of this syllabus are :

l   to develop an understanding of the processes of change and development-both in terms of time and space, through which human societies have evolved.

l   to make learners realise that the process of change is continuous and any event or phenomenon or issue cannot be viewed in isolation but in a wider context of time and space.

l   to develop an understanding of contemporary India with its historical perspective, of the basic framework of the goals and policies of national development in independent India, and of the process of change with appropriate connections to world development.

l   to deepen knowledge about and understanding of India's freedom struggle and of the values and ideals that it represented, and to develop an appreciation of the contributions made by people of all sections and regions of the country.

l   to help learners understand and cherish the values enshrined in the Indian Constitution and to prepare them for their roles and responsibilities as effective citizens of a democratic society.

l   to deepen the knowledge and understanding of India's environment in its totality, their interactive processes and effects on the future quality of people's lives

l   to facilitate the learners to understand and appreciate the diversity in the land and people of the country with its underlying unity.

l   to develop an appreciation of the richness and variety of India's heritage-both natural and cultural and the need for its preservation.

l   to promote an understanding of the issues and challenges of contemporary India-environmental, economic and social, as part of the development process.

l   to help pupils acquire knowledge, skills and understanding to face the challenges of contemporary society as individuals and groups and learn the art of living a confident and stress-free life as well as participating effectively in the community

l   to develop scientific temper by promoting the spirit of enquiry and following a rational and objective approach in analysing and evaluating data and information as well as views and interpretations

l   to develop academic and social skills such as critical thinking, communicating effectively both in visual and verbal forms- cooperating with others, taking initiatives and providing leadership in solving others', problems

l   to develop qualities clustered around the personal, social, moral, national and spiritual values that make a person humane and socially effective.

CLASS IX

Time : 3 Hrs.   Marks : 80 + 20

	Marks	Periods
Unit 1 : India and the Contemporary World - I	18	40
Unit 2 : India -Land and the People	20	45
Unit 3 : Democratic Politics I	18	40
Unit 4 : Understanding Economics	16	40
Unit 5 : Disaster Management	8	25

Internal Assessment

1. Tests (Formative and Summative)	10
2. Assignments (School & Home)	05
3. Project Work	05

Class IX

Unit 1 : India and the Contemporary World - I   40 Periods

Themes	Objectives
Any two themes from the first two sub-units and one from the third could be studied. Sub-unit 1.1 : Events and processes. 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 negation of both democracy and socialism. 1. French revolution : (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. 2. Russian Revolution. (a) The crises of Tzarism. (b) The nature of	q 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. q Familiarize students with the names of people involved, the different types of ideas that inspired the revolution, the wider forces that shaped it. q Show how written, oral and visual material can be used to recover the history of revolutions. q Explore the history of socialism through a study of the Russian revolution. q Familiarize students with the names of people involved, the different types of ideas that inspired the revolution.

72

Themes	Objectives
social movements between 1905 and 1917. (c) The First World War and foundation of Soviet state. (d) The legacy. 3. Rise of Nazism. (a) The growth of social democracy (b) The crises in Germany. (b) The basis of Hitler's rise to power. (c) The ideology of Nazism. (d) The impact of Nazism. Sub-unit 1.2 : Economies and Livelihoods 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.	ꟼ Discuss the critical significance of Nazism in shaping the politics of modern world. ꟼ Familiarize students with the speeches and writings of Nazi leaders.
4. Pastoralists in the modern world. (a) Pastoralism as a way of life. (b) Different forms of pastoralism. (c) What happens to pastoralism under colonialism and modern states? Case studies : focus on two pastoral groups, one from Africa and one from India.	ꟼ Consider what happens to pastoralists and pastoralism in the modern world, with the formation of modern states, marking of boundaries, processes of sedentarization, contraction of pastures, and expansion of markets. ꟼ Point to the varying patterns of developments within pastoral societies in different places.
5. Forest society and colonialism : (a) Relationship between forests and livelihoods. (b) Changes in forest societies under colonialism. Case studies : focus on two forest movements one in colonial India (Bastar) and one in Indonesia.	ꟼ Look at the impact of colonialism on forest societies, and the implication of scientific forestry. ꟼ Discuss the social and cultural world of forest communities through the study of specific revolts. ꟼ Understand how oral traditions can be used to explore tribal revolts.
6. Farmers and peasants : (a) Histories of the emergence of different forms of farming and peasant societies. (b) Changes within rural economies in the modern world. 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,	ꟼ Show the different processes through which agrarian transformation may occur in the modern world. ꟼ Understand how agricultural systems in India are different from that in other countries. ꟼ Familiarize students with the idea that large scale farming, small scale production, shifting agriculture operate on different principles and have different histories.

Themes	Objectives
and small peasant production in colonial India)	
Sub-unit 1.3 : Culture, Identity and Society The themes in this unit will consider how issues of culture are linked up to the making of contemporary world. 7. Sports and politics : The story of cricket (a) The emergence of cricket as an English sport. (b) Cricket and colonialism. (c) Cricket nationalism and de-colonialization.	�q Suggest how sports also have a history and that it is linked up with the politics of power and domination. ꞯ Introduce students to some of the stories in cricket that have historical significance.
8. Clothes and cultures. (a) A short history of changes in clothing. (b) Debates over clothing in colonial India. (c) Swadeshi and the movement for Khadi. **Sub-unit 1.4 : Map Work. (2 Marks).**	ꞯ Show how clothing has a history, and how it is linked to questions of cultural identity. ꞯ Discuss how clothing has been the focus of intense social battles.

Unit 2 : India - Land and the People

45 Periods

Themes	Objectives
1. India : location, relief, structure, major physiographic units.	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
2. Climate : factors influencing the climate; monsoon- its characteristics, rainfall and temperature distribution; seasons; climate and human life.	To identify the various factors influencing the climate and explain the climatic variaton of our country and its impact on the life of the people. Tor explain the importance and unifying role of monsoons;
3. Drainage : major rivers and tributaries, lakes and seas, role of rivers in the economy, pollution of rivers, measures to control river pollution.	To understand the river systems of the country and explain the role of rivers in the evolution of human society.
4. Natural Vegetation : vegetation types, distribution as well as altitudinal variation, need for conservation and various measures.	To find out the nature of diverse flora and fauna as well as their distribution; To develop concern about the need to protect the bio-diversity of our country;
5. Wildlife : major species, their distribution, need for conservation and various measures.	

Themes	Objectives
6. Population : size, distribution, age-sex composition, population change-migration as a determinant of population change, literacy, health, occupational structure and national population policy : adolescents as under-served population group with special needs.	To analyse the uneven nature of population distribution and show concern about the large size of our population; To understand the various occupations of people and explain various factors of population change; To explain various dimension of national policy and understand the needs of adolescents as underserved group.
7. Map Work (4 marks).	

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.

Posters

River pollution
Depletion of forests and ecological imbalance.

Unit - 3 : Democratic Politics I

40 Periods

Themes	Learning Objectives
1. What is democracy? Why democracy? 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	l Develop conceptual skills of defining democracy l Understand how different historical processes and forces have promoted democracy. l Developing a sophisticated defence of democracy against common prejudices

Themes	Learning Objectives
and values? 2. Designing of Democracy in India 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?	l Develop a historical sense of the choice and nature of democracy in India. l Introduction to the process of Constitution making l Develop respect for the Constitution and appreciation for Constitutional values l Recognise that constitution is a living document that undergoes changes. l Introduce the idea of representative democracy via competitive party politics
3. Electoral politics in democracy 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?	l Familiarise with our electoral system and reasons for choosing this l Develop an appreciation of citizen's increased participation in electoral politics l Recognise the significance of the Election Commission l Provide an overview of central governmental structures
4. Institutions of parliamentary democracy How is the country governed? What does Parliament do in our democracy? What is the role of the President of India, the Prime Minister and the Council of Ministers? How do these relate to one another?	l Sensitise to the key role of the Parliament and its procedures l Distinguish between nominal and real executive authorities and functions l Understand the parliamentary system of executive's accountability to the legislature l Develop a citizens' awareness of their rights l Introduction to and appreciation of the Fundamental Rights
5. Citizens' rights in democracy 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?	l Recognition of the ways in which these rights are exercised and denied in real life situations. l Introduction to judicial system and key institutions like the Supreme Court, High Courts and National Human Rights Commission.

Unit - 4 : Understanding Economics - I

40 Periods

Themes	Objectives
1. The economic story of Palampore: Economic transactions of Palampore 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.	Familiarising the children with some basic economic concepts through an imaginary story of a village
2. People as Resource : 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 nonutilisation of human resource; socio-political implication in simple form	Familiarisation of a few population related concepts and sensitization of child that people as asset can participate and contribute in nation building
3. Poverty as a challenge facing India : 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	Understanding of poverty as a challenge and sensitization of the learner; Appreciation of the government initiative to alleviate poverty
4. Food Security : Source of foodgrains- variety across the nation - famines in the past - the need for self sufficiency - role of government in food security - procurement of foodgrains - 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 as case studies)	Exposing the child to an economic issue which is basic necessities of life; Appreciate and critically look at the role of government in ensuring food supply

Suggested Activities / Instructions :

Theme 1 : 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, MN Srinivas and RK 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 IV : 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

1. Man made disasters - Nuclear, Biological and Chemical.

2. Common Hazards - Prevention and Mitigation

3. Community Based Disaster Management.

Class X
Theory Paper 1

3 Hours   Marks 80 + 20
for internal assessment

	Marks	Periods
Unit 1 :India and the contemporary World - II	20	45
Unit 2 :India - Resources and their Development	18	40
Unit 3 :Democratic Politics II	18	40
Unit 4 :Understanding Economics - II	16	40
Unit 5 :Disaster Management	8	25

Internal Assessment

1. Tests (formative and summative)	10
2. Assignments (School & Home assignments)	05
3. Project work	05

Unit 1 : India and the Contemporary world - II

45 Periods

Themes	Objectives

Students are required to choose any two themes from the first two sub units and one from the third sub-unit In sub-unit 1.1, theme 3 is compulsory. Students to choose any one from the first two themes.
 	
Sub-unit 1.1 : Events and processes :
 	
1. Nationalism in Europe :
 	
   (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.
 	
2. Nationalist Movement in Indo China : Factors leading to growth of rationalism in India
 	
   (a) French colonialism in Indochina. (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 Indochina war.
 	
3. Nationalism in India : Civil Disobedience Movement (a) First world war, Khilafat and Non-Cooperation. (b) Salt Satyagraha. (c) Movements of peasants, workers, tribals. (d) Activities of different political groups.
	q The theme will discuss the forms in which nationalism developed along with the formation of nation states in Europe in the post-1830 period.
	
	q Discuss the relationship/difference between European nationalism and anti-colonial nationalisms.
	
	q Point to the way the idea of the nation states became generalized in Europe and elsewhere.
	
	q Discuss the difference between French colonialism in Indochina and British colonialism in India.
	
	q Outline the different stages of the anti-imperialist struggle in Indochina.
	
	q Familiarize the students with the differences between nationalist movements in Indo China and India.
	
	q Discuss the characteristics of Indian nationalism through a case study of Civil Disobedience Movement.
	
	q Analyze the nature of the diverse social movements of the time.
	
	q Familiarize students with the writings and ideals of different political groups and individuals, notably Mahatama Gandhi.

Themes	Learning Objectives
Sub-unit 1.2 : Economies and livelihoods : 4. Industrialization 1850s - 1950s : (a) Contrast between the form of industrialization in Britain and India. (b) Relationship between handicrafts and industrial production, formal and informal sectors. (c) Livelihood of workers. Case studies : Britain and India. 5. Urbanization and urban lives : (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. 6. Trade and Globalization : (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 1960s. Sub-unit 1.3 : Culture, Identity and Society 7. Print culture and nationalism. (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. 8. History of the novel: (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. Sub-unit 1.4 : Map Work (2 Marks)	q discuss two different patterns of industrialization, one in the imperial country and another within a colony. q Show the relationship between different sectors of production. q 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. q Show that globalizaton has a long history and point to the shifts within the process. q Analyze the implication of globalization for local economies. q Discuss how globalization is experienced differently by different social groups. q Discuss the link between print culture and the circulation of ideas. q Familiarize students with pictures, cartoons, extracts from propaganda literature and newspaper debates on important events and issues in the past. q Show that forms of writing have a specific history, and that they reflect historical changes within society and shape the forces of change. q Familiarize students with some of the ideas of writers who have had a powerful impact on society.

Unit 2 : India - Resources and their Development

40 Periods

Themes	Objectives
1. Resources : Types - natural and human; Need for resource planning.	Understand the value of resources and the need for their judicious utilisation and conservation;
2. Natural Resources : land as a resource, soil types and distribution; changing land-use pattern; land degradation and conservation measures.	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;
3. Agriculture : types of farming, major crops, cropping pattern, technological and institutional reforms; their impact; contribution of Agriculture to national economy - employment and output.	Explain various government policies for institutional as well as technological reforms since independence; Understand the importance of agriculture in national economy;
4. Water resources : sources, distribution, utilisation, multi-purpose projects, water scarcity, need for conservation and management, rainwater harvesting. (One case study to be introduced)	Understand the importance of water as a resources as well as develop awareness towards its judicious use and conservation;
5. Mineral Resources : types of minerals, distribution, use and economic importance of minerals, conservation.	Discuss various types of minerals as well as their uneven nature of distribution and explain the need for their judicious utilisation;
6. Power Resources : types of power resources conventional and non-conventional, distribution and utilization, and conservation.	Discuss various types of conventional and non-conventional resources and their utilization
7. Manufacturing Industries : Types, spatial distribution, contribution of industries to the national economy, industrial pollution and degradation of environment, measures to control degradation. (One case study to be introduced)	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 areas; Discuss the need for a planned industrial development and debate over the role of government towards sustainable development
8. Transport, communication and trade	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.
9. Map Work (3 marks)	

Project / Activity

l   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.

l   Learners may write a brief report on various irrigation practices in the village and the change in cropping pattern in the last decade.

Posters

l   Pollution of water in the locality.

l   Depletion of forests and the greenhouse effect.

Note : Any similar activities may be taken up.

Unit 3 : Democratic Politics II

40 Periods

Themes	Objectives
1. Working of Democracy 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?	l Analyse the relationship between social cleavages and political competition with reference to Indian situation l Understand and analyse the challenges posed by communalism to Indian democracy l Understand the enabling and disabling effects of caste and ethnicity in politics l Develop a gender perspective on politics
2. Power sharing mechanisms in democracy 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?	l Introduce students to the centrality of power sharing in a democracies l Understand the working of spatial and social power sharing mechanisms l Analyse federal provisions and institutions l Understand the new Panchayati Raj institutions in rural and urban areas
3. Competition and contestations in democracy How do struggles shape democracy in favour of ordinary people? What role do political parties play in competition and contestation?	l Understand the vital role of struggle in the expansion of democracy l Analyse party systems in democracies l Introduction to major political parties in the country

Themes	Learning Objectives
Which are the major national and regional parties in India? Why have social movements come to occupy large role in politics?	l Analyse the role of social movements and non-party political formations
4. Outcomes of democracy 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?	l Introduction to the difficult question of evaluating the functioning of democracies l Develop the skills of evaluating Indian democracy on some key dimensions : development, security and dignity for the people. l Understand the causes for continuation of democracy in India.
5. Challenges to democracy 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?	l Distinguish between sources of strength and weaknesses of Indian democracy l Reflect on the different kinds of measures possible to deepen democracy l Promote an active and participatory citizenship.

Unit 4 : Understanding Economics II

40 Periods

Themes	Learning Objectives
1. The Story of Development : 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)	l Familiarisation of some macroeconomic concepts. l 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. l It is necessary to raise question in minds of the children whether the increase in income alone is sufficient for a nation. l How and why people should be healthy and provided with education.

Themes	Learning Objectives
2. Money and Financial System : 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.	l Familiarize the concept of money as an economic concept; l Create awareness of the role of financial institutions from the point of view day-to-day life.
3. The Role of Service Sector in Indian Economy : 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	l To make aware of a major employment generating sector l Sensitise the learner of how and why governments invest in such an important sector
4. Globalisation : 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 adoped in Reform measures (easing of capital flows; migration, investment flows); Different perspectiives on globalisation and its impact on different sectors; Political Impact of globalisation	l Provide children with some idea about how a particular economic phenomenon is influencing their surroundings and day-to-day life.
5. Consumer Awareness : 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	l Making the child aware of his or her rights and duties as a consumer; l Familiarizing the legal measures available to protect from being exploited in markets

Suggested Activities

Theme 2 :

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 4 :

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

Theme 5 : 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 papers and consumer courts.

Unit 5 : Disaster Management   25 Periods

- Tsunami
- Safer Construction Practices.
- Survival Skills.
- Alternate Communication systems during disasters.
- Sharing Responsibility

6. ADDITIONAL SUBJECTS

(A) MUSIC

Any one of the following can be offered: (Hindustani or Carnatic)

1. Hindustani Music-Vocal
   or
2. Hindustani Music Melodic Instruments
   or
3. Hindustani Music Percussion Instruments

4. Carnatic Music-Vocal
   or
5. Carnatic Music-Melodic Instruments
   or
6. Carnatic Music-Percussion Instruments

(1) HINDUSTANI MUSIC (VOCAL)
(CODE NO. 034)

CLASS IX		Marks	Periods
Theory	2hours	25	68
Practical		75	

THEORY

1. An outline history of Indian Music
2. Definition of the folllowing:

   Sangeet, Nada, Swara, Shuddha, Vikrit (Komal, Teevra) Sthana (Mandra, Madhya, Tara), Aaroha, Avaroha, Raga, Laya, Tala, Sam, Tali, Khali, Matra, Avartana

PRACTICAL   202 pds.

1. (a) National Anthem
   (b) Four folk or tribal songs
   (c) Four devotional songs
   (d) Three patriotic songs
   (e) Community singing (two songs)
2. Aaroha, Avaroha, Pakad and Drut Khyal in the following Ragas: Yaman, Bhairav, Bhopali with few tanas.
3. Recitation of the Thekas of Teentala, Kaharwa, Dadra and Jhaptal; keeping tala with hand beats.
4. Eight Tala-Baddha, Alankars set to different Talas.

CLASS X			
Theory	2 hours	25	68
Practical		75	

THEORY

1. Basic knowledge of the structure and tuning of Taanpura.
2. Knowledge of the notation systems laid down by Pt. Vishnu Digamber and Pt. V.N. Bhatkhande.

3. Definition of Vadi, Samvadi, Anuvadi, Vivadi, Alap
4. Brief description of Natya shastra, Sangeet Ratnakar.

	Marks	Periods
PRACTICAL	75	202

1. Community Singing:
    (a) Two songs in different regional languages.
    (b) One Tagore song

2. Aaroha, Avaroha, Pakad and Drut Khyal in the following Ragas: Kafi, Khamaj, Sarang and Desh with simple elaborations and few tanas.

Suggested Reference Books :
1. Kramik Pustak Malika by Pandit V.N. Bhatkhande
2. Rag Vigyan by Pandit V.N. Patwardhan.

(II) HINDUSTANI MUSIC (MELODIC INSTRUMENTS)
(Code No. 035)
CLASS IX

Theory	2 hours	25	68
Practical		75	

THEORY

1. An outline history of Indian Music
2. Definition of the following:
    Sangeet, Nada, Swara, Shuddha, Vikrit (Komal, Teevra) Sthana (Mandra, Madhya, Tara), Aaroha, Avaroha, Raga, Laya, Tala, Sama, Tali, Khali, Matras, Avartana.

PRACTICAL   202

1. Proficiency in any one of the following instruments :
    (i) Sitar, (ii) Sarod, (iii) Violin, (iv) Dilruba or Esraj (v) Flute (vi) Mandolin, (vii) Guitar.
2. (a) The tune of National Anthem.
    (b) Four light Dhuns and four folk dhuns of different regions.
3. Aaroha, Avaroha, Pakad and Drut gat in the following Ragas; Yaman, Bhairav, Bhopali with few Todas.
4. The recitation of Thekas of Teen Taal, Keharwa, Dadra and Jhaptal, taal keeping with hand beats.

CLASS X

Theory	2 hours	25	68
Practical		75	

THEORY

1. Basic knowledge of the structure and tuning of any one of the following insruments:
    (i) Sitar, (ii) Sarod, (iii) Violin, (iv) Dilruba or Esraj, (v) Flute, (vi) Mandolin, (vii) Guitar.

2. Knowledge of the notation systems laid down by Pt. Vishnu Digamber Paluskar and Pt. V.N. Bhatkhande.

3. Vadi, Samvadi, Anuvadi, Vivdi, Alap

4. Brief description of Natya Shastra, Sangeet Ratnakar.

		Marks	Periods
PRACTICAL		75	202

1. Eight Tala-babbha Alankaras set to different Talas.

2. Aaroha, Avaroha, Pakad and Drut gat in the following Ragas: Kafi, Khamaj, Sarang and Desh with simple elaborations and few Todas

Suggested Reference Books:

1. Sitar Marg (I Part) by Shri S. Bandyopadhyaya, Vani Mandir, Subzi Mandi, Delhi-7

2. Vitat Vadya Shiksha', by Shri S. Bandyopadhyaya, Vani Mandir, Subzi Mandi, Delhi-7

3. Sitar and its Technique by Prof. Debu Chaudhuri, Avon Publishers, Shahdara, Delhi.

(III) HINDUSTANI MUSIC (PERCUSSION-INSTRUMENTS)
(CODE NO. 036)
CLASS IX

Theory	2 hours	25	68
Practical		75	

THEORY

1. An outline history of Indian Music

2. Definition of the following:

   Sangeet, Nada, Swara, Shuddha, Vikrit (Komal, Teevra) Raga, Laya, Tala, Matra, Vibhag, Sama, Tali Avartana, Dugun, Tigun, Chaugun.

PRACTICAL		75	202

To acquire efficiency in playing on the opted percussion instrument (Tabla or Pakhawaj) with special reference to accompaniment.

1. Ability to recite with hand beats and to play on the instruments the Theka of Teen Taal, Kaharwa, Dadra, with simple elaborations.

2. Accompaniment with solo performance.

CLASS X

Theory	2 hours	25	68
Practical		75	

THEORY

1. Basic knowledge of the structure and tuning of the instruments (Tabla or Pakhawaj).

2. Knowledge of the notation systems laid down by Pt. Vishnu Digamber Paluskar and Pt. V.N. Bhatkhande.

3. Definition of Avartan, Theka, Lahera, Amad, Mohra, Tihai.
4. Brief description of Natya Shastra, Sangeet Ratnakar.

	Marks	Periods
PRACTICAL	75	202

1. To produce correctly the basic Bolas-Ta, Dha, Tin and Dhin, Dha, Ki, Na, Ti, Dhi, Na and Ti; Ti, Na, Dhi, Dhi, Ga, Tir, Kit, Tu, Na, Katta, etc.
2. Ability to recongise the tala of the composition being sung or played on a melodic instrument.
3. To recite the tala with hand beats and to play on the instrument the Theka of Jhaptala, Rupak and Ektala with elaborations.

Suggested Reference Books :
1. 'Tal Sastra' by Shri Bhagwat Sharan, Sangit Hathras.
2. Tabla Vadan Shiksha by Pt. Krishna Rao Shankar Pandit.

(IV) CARNATIC MUSIC (VOCAL)
(CODE NO. 031)

	CLASS IX	Marks	Periods
Theory	2 hours	25	68
Practical		75	

THEORY

1. Knowledge of the following terms:

    Sangita, Naada, Swara, Svarsthana, Arohana, Avarohana, Sruti, Taala, Laya, Alankara, Sthayi, Graha or Eduppu, Dhaatu, Maatu or Degrees of Speed, Anya Svara, Suddha Svara, Vikrta, Svara Sangati, Poorvaanga, Uttaranga, Vaadi Samvaadi, Anuvaadi, Vivaadi, Samam, Atita, Anaagata, Raaga

2. Outlines of Raaga, Lakshanaas of the following:

    Maayaamaalavagowla, Sankaraabharanam, Kharaharapriya, Hamsadhvani.

3. Lakshanaas of the following musical forms:

    Gitam, Svarajati, Varnam.

4. Basic knowledge of the following Taalas:

    Aadi, Roopakam, Chaapu.

5. An outline history of Indian Music, including the biography of Purandaradaasa and Tyaagaraaja.

	PRACTICAL	75	202

1. Community Singing:

    (a) National Anthem

    (b) Five folk or tribal songs of any region indicating time of the year and occasion with which they are related.

2. Voice-culture exercises for Sruti Suddha and Sthana Suddha

3. The following ragas with descriptive details:

    Maayaamaalavagowla, Sankaraabharanam, Kharaharapriya, Hamsadhvani

4. Singing of simple Devernaamaas and Tiru Pugazh to the accompaniment of Tambura and Mridangam.

89

5.   Soolaadi Sapta Talas and Chaapu Talas.
Suggested Reference Books:
       South Indian Music Publishing Home: Volumes I, II, III & IV by Prof. P. Sambamoorthy.

	CLASS X	Marks	Periods
Theory	2 hours	25	68
Practical		75	

THEORY

1.   Raaga Lakshana outlines of the following:
       Mohanam, Kalyaani, Kaambhoji, Bhairavi.
2.   Lakshanas of Keertana and Kriti
3.   Outlines knowledge of the seventy-two Melakarta Scheme
4.   Basic Knowledge of the structure and tuning of the Tambura.
5.   Principles of Notation in carnatic music.

	PRACTICAL	75	202

1.   Community Singing:
       Four devotional songs, simple Naamaavalis, Bhajans composed by the saints/poets of India.
2.   The following ragas with descriptive details:
       Mohanam, Kalyaani, Kaambhoji, Bhairavi.
3.   To create proper sense of svara and laya through sapta tala alankaaras. Alankaaras in Mayaamaalava gowla and other simple scales.
4.   Divyanaama keertanas and simple kritis, to the accompaniment of Tambura and Mridangam.
5.   Principles of notation in Carnatic music, illustrated with suitable examples.

(V) CARNATIC MUSIC (MELODIC INSTRUMENTS)
(CODE NO. 032)
CLASS IX

	2 hours	25	68
Theory	2 hours	25	68
Practical		75	

THEORY

1.   Knowledge of the following terms :
       Sangita, Naada, Swara, Svarsthana, Arohana, Avarhana, Aavarta, Sruti, Sthayi, Graha or Eduppu, Dhaatu, Maatum Sama, Kaala or Degrees of Speed, Suddha Svara Vikrta, Svara, Sangati Poorvaanga, Uttaranga, Vaadi, Samvaadi, Anuvaadi, Vivaadi, Atita, Anaagata, Anya svara.
2.   Raaga Lakshanaas Outlines of :
       Maayaamaalavogowla, Sankaraabharanam, Kharaharapriya, Hamsadhvani.
3.   Lakshanaas of the musical forms geetam, svarajati and Varnam.
4.   Taalas : Aadi, Roopakam and Chaapu.

5. An outline history of Indian Music including the biography of Purandaradaasa and Tyaagaraaja.

		Marks	Periods
PRACTICAL		75	202

1. Any one of the following instruments :
    1. Veena 2.Violin 3. Flute 4. Gottuvadyam
2. The candidates for instruments may be allowed to opt for community singing or for instrumental ensemble based either on the ragas from the syllabus or light and folk melodies.
3. Sapta Tala Alankaras in simple scales.
4. Playing ragas in detail on the instrument as prescribed in Theory.
5. Musical compositions :
    Two geetams, one svarajati and one Adi Tala Varnam in two degrees of speed.

CLASS IX

Theory	2 hours	25	68
Practical		75	

THEORY

1. Basic knowledge of the structure and tuning of the instrument opted for
2. Outline knowledge of the seventy-two Melakarta Scheme
3. Principles of Notation in Carnatic music
4. Raaga Lakshana of Mohanam, Kalyaani, Kaambhoji, Bhariavi
5. Lakshanas of the musical forms keertanam and Kriti

PRACTICAL	202

1. Playing of the ragas prescribed for Theory
2. Tuning the instrument
3. Musical composition : Ata tala Varnam in two degrees of speed.
4. Simple keertanams and simple kritis.

Suggested Reference Books:
1. Flute by Prof. Sambamoorthy.
2. Musical Instruments of India by S. Krishnaswamy.

(VI) CARNATIC MUSIC (PERCUSSION-INSTRUMENTS)
(CODE NO. 033)
CLASS IX

Theory	2 hours	25	68
Practical		75	

THEORY

1. Knowledge of the following terms:
    Sangita, Naada, Swara, Svarasthana, Arohana, Avarohana, Aavarta, Sruti, Sthayi, Graha or

Eduppu, Dhaatu, Maatu, Sama, Kaala or Degrees of Speed, Suddha Svara, Vikrta, Svara, Sangati, Poorvaanga, Uttaranga, Vaadi, Samvaadi, Anuvaadi, Vivaadi, Atita, Anaagata, Anya Svara.

2. Raaga Laksanaas Outlines of :

    Maayaamaalavagowla, Sankaraabharanam, Kharaharapriya, Hamsadhvani.

3. Lakshanaas of the musical forms geetam, Svarajati and Varnam.

4. Taalas : Aadi, Roopakam and Chaapu.

5. An outline history of Indian Music including the biography of Purandaradaasa and Tyaagaraaja

		Marks	Periods
	PRACTICAL	75	202

1. To acquire proficiency in playing on the Mridangam both for Solo and Accompanying purposes. Also to learn to handle a few other percussion instruments, such as the Ghatam, the Kanjeera and the Moresing.

    1. To participate in community singing

    2. Stress to be laid on creating and developing proper sense of rhythm.

    3. To recite "Sollukattus" for the different taalas.

	CLASS IX	Marks	Periods
Theory	2 hours	25	68
Practical		75	

THEORY

1. Knowledge of the structure and tuning of the instrument

2. To produce correctly and clearly the Sollukattus on the instrument opted for and the technicalities related to them.

3. Principles of Notation in Carnatic music

4. Lakshanas of the musical forms keertanam and Kriti, also ragas Mohanam, Kalyaani, Kaambhoji, Bhairavi.

5. Basic knowledge of the principles of performance as presented in Vocal and Instrumental music.

	PRACTICAL	75	202

1. To play precisely, the Sollukattus in different degrees of speed.

2. Tuning of the instrument.

3. Ability to play the Thekas and Mohras in Adi tala, Rupaka tala and Chaappu tala.

4. To play brief tani-aavartams in simple taalas.

Suggested Reference Books :

1. 'Percussion Instruments & Laya Vadys' Prof. P. Sambamurti.

2. 'Mridanga Svabodhini' by M.R. Durairaj

(B) PAINTING
(CODE NO. 049)
CLASS IX

One paper	3 hours	100 Marks	270 Periods

(i) Still Life Study   50   190
Study of a group of two or three arranged objects from
a fixed point of view in colour. Group may include, vegetables,
foliage and objects of daily use.

(ii) Sketches from Life and Nature in Pencil and Ink.   20   80

(iii) Submission of portfolio consisting of five selected works   30
done during the year.

CLASS X

One paper	3 hours	100 Marks	270 Periods

Painting from memory
Simple composition in (water/poster/pastel) colours on given subjects based on sketching from life,

(C) COMMERCE

Note : Any one of the following three areas can be offered:
- I. Elements of Business
  Or
- II. Elements of Book Keeping and Accountancy
  or
- III. Typewriting-English or Hindi

(I) ELEMENTS OF BUSINESS
(CODE NO. 154)

Objective : The objective of this paper is to provide elementary knowledge of the different aspects of business.

CLASS IX

One Paper	3 hours	100 Marks	270 Periods

I. Introductory : Meaning and scope of business   05   12

II. Channels of distribution : Types and functions of wholesaler and retailer   20   54

III. Course of Business Transactions : Buying and selling of
goods, methods of approaching customers; enquiries and
quotations, price list, tenders, estimates and firm offers,