## SCIENCE

(Code No. 086)

## Class: IX and X (2019-20)

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

Upper primary stage demands that a number of opportunities should be provided to the students to engage them with the processes of Science like observing, recording observations, drawing, tabulation, plotting graphs, etc., whereas the secondary stage also 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 seven broad themes viz. Food; Materials; The World of The Living; How Things Work; Moving Things, People and Ideas; Natural Phenomenon and Natural Resources. 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 based on hands on activities as well as modes of reasoning that are typical of the subject.

## General Instructions:

1. There will be an Annual examination based on entire syllabus.
2. The annual examination will be of 80 marks and 20 marks shall be for Internal Assessment.
3. The components of Internal Assessment would be:
a. Periodic Assessment of 10 marks that would include:

- For 5 marks- Three periodic tests conducted by the school. Average of the best two tests to be taken. This will have a weightage of 05 marks towards the final result.
- For 5 marks- Diverse methods of assessment as per the need of the class dynamics and curriculum transaction. These may include- short tests, oral test, quiz, concept map, etc. This will also have a weightage of 05 marks towards the final result.
b. Practical / Laboratory work should be done throughout the year and the student should maintain record of the same. Practical Assessment should be continuous. There will be weightage of 5 marks towards the final result. All practicals listed in the syllabus must be completed.
c. Portfolio to be prepared by the student- This would include classwork, other sample of student work, self-assessment and peer-assessment. This will carry a weightage of 5 marks towards the final results.

COURSE STRUCTURE
CLASS IX
(Annual Examination)
Marks: 80

| Unit No. | Unit | Marks | Periods |
| :---: | :--- | :---: | :---: |
| I | Matter - Its Nature and Behaviour | 23 | 50 |
| II | Organization in the Living World | 20 | 45 |
| III | Motion, Force and Work | 27 | 60 |
| IV | Our Environment | 06 | 15 |
| V | Food; Food Production | 04 | 10 |
|  | Total | 80 |  |
|  | Internal assessment | 20 |  |
|  | Grand Total | 100 |  |

## Theme: Materials

## Unit I: 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. Heterogeneous 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.
Structure of atoms: Electrons, protons and neutrons, valency, chemical formula of common compounds. Isotopes and Isobars.

Theme: The World of the Living
(45 Periods)

## Unit II: Organization in the Living World

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 and cell inclusions; chloroplast, mitochondria, vacuoles, endoplasmic reticulum, Golgi apparatus; nucleus,
chromosomes - basic structure, number.

## Tissues, Organs, Organ System, Organism:

Structure and functions of animal and plant tissues (only four types of tissues in animals; Meristematic and Permanent tissues in plants).

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, Thallophyta, Bryophyta, Pteridophyta, Gymnosperms and Angiosperms). Major groups of animals (salient features) (Non-chordates upto phyla and chordates upto classes).

Health and Diseases: 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 programmes.

## Theme: Moving Things, People and Ideas

(60 Periods)

## Unit III: Motion, Force and Work

Motion: Distance and displacement, velocity; uniform and non-uniform motion along a straight line; acceleration, distance-time and velocity-time graphs for uniform motion and uniformly accelerated motion, derivation of 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, Action and Reaction forces, Inertia of a body, Inertia and mass, Momentum, Force and Acceleration. Elementary idea of conservation of Momentum.

Gravitation: Gravitation; Universal Law of Gravitation, Force of Gravitation of the earth (gravity), Acceleration due to Gravity; Mass and Weight; Free fall.

Floatation: 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).

Theme: Natural Resources: Balance in nature

## Unit IV: 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 and Nitrogen.

Theme: Food
(10 Periods)

## Unit V: Food Production

Plant and animal breeding and selection for quality improvement and management; Use of fertilizers and manures; Protection from pests and diseases; Organic farming.

## PRACTICALS

(30 Periods)
Practicals should be conducted alongside the concepts taught in theory classes. (LIST OF EXPERIMENTS)

1. Preparation of:
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 solution of starch in water and egg albumin/milk in water and distinguish between these on the basis of

- transparency
- filtration criterion
- stability

2. Preparation of
a) A mixture
b) A compound
using iron filings and sulphur powder and distinguishing between these on the basis of:
(i) appearance, i.e., homogeneity and heterogeneity
(ii) behaviour towards a magnet
(iii) behaviour towards carbon disulphide as a solvent
(iv) effect of heat
3. Separation of the components of a mixture of sand, common salt and ammonium
chloride (or camphor).
4. Perform the following reactions and classify them as physical or chemical changes:
a) Iron with copper sulphate solution in water
b) Burning of magnesium ribbon in air
C) Zinc with dilute sulphuric acid
d) Heating of copper sulphate crystals
e) Sodium sulphate with barium chloride in the form of their solutions in water
5. Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells \& to record observations and draw their labeled diagrams.
6. Identification of Parenchyma, collenchyma and Sclerenchyma tissues in plants, striped, smooth and cardiac muscle fibers and nerve cells in animals, from prepared slides. Draw their labeled diagrams.
7. Determination of the melting point of ice and the boiling point of water.
8. Verification of the Laws of reflection of sound.
9. Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder.
10. Establishing the relation between the loss in weight of a solid when fully immersed in
a) Tap water
b) Strongly salty water with the weight of water displaced by it by taking at least two different solids.
11. Determination of the speed of a pulse propagated through a stretched string/slinky(helical spring).
12. Study of the characteristics of Spirogyra, Agaricus, Moss, Fern, Pinus (either with male or female cone) and an Angiospermic plant. Draw and give two identifying features of the groups they belong to.
13. Observe the given pictures/charts/models of earthworm, cockroach, bony fish and bird. For each organism, draw their picture and record:
a) one specific feature of its phylum.
b) one adaptive feature with reference to its habitat.
14. Verification of the law of conservation of mass in a chemical reaction.
15. Study of the external features of root, stem, leaf and flower of monocot and dicot plants.

## COURSE STRUCTURE: CLASS X

(Annual Examination)
Marks: 80

| Unit <br> No. | Mnit | Marks | Periods |
| :---: | :--- | :---: | :---: |
| I | Chemical Substances-Nature and Behaviour | 25 | 55 |
| II | World of Living | 23 | 50 |
| III | Natural Phenomena | 12 | 23 |
| IV | Effects of Current | 13 | 32 |
| V | Natural Resources | 07 | 20 |
|  | Total | 80 |  |
|  | Internal assessment | 20 |  |
|  | Grand | 100 |  |

Theme : Materials
(55 Periods)

## Unit I: Chemical Substances - Nature and Behaviour

Chemical reactions: Chemical equation, Balanced chemical equation, implications of a balanced chemical equation, types of chemical reactions: combination, decomposition, displacement, double displacement, precipitation, neutralization, oxidation and reduction.

Acids, bases and salts: Their definitions in terms of furnishing of $\mathrm{H}^{+}$and $\mathrm{OH}^{-}$ions, General properties, examples and uses, concept of pH scale (Definition relating to logarithm not required), importance of pH in everyday life; preparation and uses of Sodium Hydroxide, Bleaching powder, Baking soda, Washing soda and Plaster of Paris.

Metals and nonmetals: Properties of metals and non-metals; Reactivity series; Formation and properties of ionic compounds; Basic metallurgical processes; Corrosion and its prevention.

Carbon compounds: Covalent bonding in carbon compounds. Versatile nature of carbon. Homologous series. Nomenclature of carbon compounds containing functional groups (halogens, alcohol, ketones, aldehydes, alkanes and alkynes), difference
between saturated hydrocarbons and unsaturated hydrocarbons. Chemical properties of carbon compounds (combustion, oxidation, addition and substitution reaction). Ethanol and Ethanoic acid (only properties and uses), soaps and detergents.

Periodic classification of elements: Need for classification, early attempts at classification of elements (Dobereiner's Triads, Newland's Law of Octaves, Mendeleev's Periodic Table), Modern periodic table, gradation in properties, valency, atomic number, metallic and non-metallic properties.

## Theme: The World of the Living

(50 Periods)

## Unit II: World of Living

Life processes: 'Living Being'. Basic concept of nutrition, respiration, transport and excretion in plants and animals.
Control and co-ordination in animals and plants: Tropic movements in plants; Introduction of plant hormones; Control and co-ordination in animals: Nervous system; Voluntary, involuntary and reflex action; Chemical co-ordination: animal hormones.
Reproduction: Reproduction in animals and plants (asexual and sexual) reproductive health-need and methods of family planning. Safe sex vs HIV/AIDS. Child bearing and women's health.
Heredity and Evolution: Heredity; Mendel's contribution- Laws for inheritance of traits: Sex determination: brief introduction; Basic concepts of evolution.

## Theme : Natural Phenomena

(23 Periods)

## Unit III: Natural Phenomena

Reflection of light by curved surfaces; Images formed by spherical mirrors, centre of curvature, principal axis, principal focus, focal length, mirror formula (Derivation not required), magnification.
Refraction; Laws of refraction, refractive index.
Refraction of light by spherical lens; Image formed by spherical lenses; Lens formula (Derivation not required); Magnification. Power of a lens.
Functioning of a lens in human eye, defects of vision and their corrections, applications of spherical mirrors and lenses.
Refraction of light through a prism, dispersion of light, scattering of light, applications in daily life.

## Unit IV: Effects of Current

Electric current, potential difference and electric current. Ohm's law; Resistance, Resistivity, Factors on which the resistance of a conductor depends. Series combination of resistors, parallel combination of resistors and its applications in daily life. Heating effect of electric current and its applications in daily life. Electric power, Interrelation between P, V, I and R.

Magnetic effects of current : Magnetic field, field lines, field due to a current carrying conductor, field due to current carrying coil or solenoid; Force on current carrying conductor, Fleming's Left Hand Rule, Electric Motor, Electromagnetic induction. Induced potential difference, Induced current. Fleming's Right Hand Rule, Electric Generator, Direct current. Alternating current: frequency of AC. Advantage of AC over DC. Domestic electric circuits.

## Theme: Natural Resources

(20 Periods)

## Unit V: Natural Resources

Sources of energy: Different forms of energy, conventional and non-conventional sources of energy: Fossil fuels, solar energy; biogas; wind, water and tidal energy; Nuclear energy. Renewable versus non-renewable sources of Energy.

Our environment: Eco-system, Environmental problems, Ozone depletion, waste production and their solutions. Biodegradable and non-biodegradable substances. Management of natural resources: Conservation and judicious use of natural resources. Forest and wild life; Coal and Petroleum conservation. Examples of people's participation for conservation of natural resources. Big dams: advantages and limitations; alternatives, if any. Water harvesting. Sustainability of natural resources.

## PRACTICALS

## Practical should be conducted alongside the concepts taught in theory classes LIST OF EXPERIMENTS

1. A. Finding 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 Hydrogen Carbonate solution
B. Studying the properties of acids and bases $(\mathrm{HCl} \& \mathrm{NaOH})$ on the basis of their reaction with:
a) Litmus solution (Blue/Red)
b) Zinc metal
c) Solid sodium carbonate
2. Performing and observing the following reactions and classifying them into:
A. Combination reaction
B. Decomposition reaction
C. Displacement reaction
D. Double displacement reaction
(i) Action of water on quicklime
(ii) Action of heat on ferrous sulphate crystals
(iii) Iron nails kept in copper sulphate solution
(iv) Reaction between sodium sulphate and barium chloride solutions
3. Observing the action of $\mathrm{Zn}, \mathrm{Fe}, \mathrm{Cu}$ and Al metals on the following salt solutions:
i) $\quad \mathrm{ZnSO}_{4}(\mathrm{aq})$
ii) $\quad \mathrm{FeSO}_{4}(\mathrm{aq})$
iii) $\mathrm{CuSO}_{4}(\mathrm{aq})$
iv) $\quad \mathrm{Al}_{2}\left(\mathrm{SO}_{4}\right)_{3}(\mathrm{aq})$

Arranging $\mathrm{Zn}, \mathrm{Fe}, \mathrm{Cu}$ and Al (metals) in the decreasing order of reactivity based on the above result.
4. Studying the dependence of potential difference $(\mathrm{V})$ across a resistor on the current (I)
passing through it and determine its resistance. Also plotting a graph between V and I .
5. Determination of the equivalent resistance of two resistors when connected in series and parallel.
6. Preparing a temporary mount of a leaf peel to show stomata.

7 Experimentally show that carbon dioxide is given out during respiration.
8 Study of the following properties of acetic acid (ethanoic acid):
i) odour
ii) solubility in water
iii) effect on litmus
iv) reaction with Sodium Hydrogen Carbonate

9 Study of the comparative cleaning capacity of a sample of soap in soft and hard water.

10 Determination of the focal length of:
i) Concave mirror
ii) Convex lens
by obtaining the image of a distant object.
11 Tracing 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.

12 Studying (a) binary fission in Amoeba, and (b) budding in yeast and Hydra with the help of prepared slides.
13 Tracing the path of the rays of light through a glass prism.
14 Finding the image distance for varying object distances in case of a convex lens and drawing corresponding ray diagrams to show the nature of image formed.
15 Identification of the different parts of an embryo of a dicot seed (Pea, gram or red kidney bean).

## PRESCRIBED BOOKS:

- Science-Textbook for class IX-NCERT Publication
- Science-Text book for class X- NCERT Publication
- Laboratory Manual-Science-Class IX, NCERT Publication
- Laboratory Manual-Science-Class X, NCERT Publication
- Exemplar Problems Class IX - NCERT Publication
- Exemplar Problems Class X - NCERT Publication

1) Board Examination -Theory

| Maximum Marks: 80 |  |  |  | Duration : 3 Hours |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Sr. <br> No. | Typology of Questions | Objective Type * (01 mark) | $\begin{gathered} \text { SA } \\ \text { (03 marks) } \end{gathered}$ | $\begin{gathered} \text { LA } \\ \text { (05 marks) } \end{gathered}$ | Total |
| 1 | Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. | 07 | 02 | 01 | 22.5\% |
| 2 | Understanding: Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas | 04 | 02 | 02 | 25\% |
| 3 | Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way. | 04 | 01 | 02 | 21.25\% |
| 4 | Analyzing and Evaluating: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. | 05 | 02 | 01 | 20\% |
| 5 | Creating: Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions. | - | 03 | - | 11.25\% |
|  | Total | 20 (20) | 10 (30) | 06 (30) | 100\% |

All questions would be compulsory. However, an internal choice of approximately $33 \%$ would be provided.
2) Internal Assessment: 20 Marks

- Periodic Assessment - 05 marks + 05 marks
- Subject Enrichment (Practical Work) - 05 marks
- Portfolio - 05 marks

Note: Objective Section would have 10 MCQ . Besides this, the section would include VSA, Assertion-Reasoning type questions etc.

## MATHEMATICS (IX-X) <br> Session 2019-20

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 the Focus Group on Teaching of Mathematics which is to meet the emerging needs of all categories of students. For motivating the teacher to relate the topics to 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 height 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:

- consolidate the Mathematical knowledge and skills acquired at the upper primary stage;
- acquire knowledge and understanding, particularly by way of motivation and visualization, of basic concepts, terms, principles and symbols and underlying processes and skills;
- develop mastery of basic algebraic skills;
- develop drawing skills;
- feel the flow of reason while proving a result or solving a problem;
- apply the knowledge and skills acquired to solve problems and wherever possible, by more than one method;
- to develop ability to think, analyze and articulate logically;
- to develop awareness of the need for national integration, protection of environment, observance of small family norms, removal of social barriers, elimination of gender biases;
- to develop necessary skills to work with modern technological devices and mathematical software's.
- to develop interest in mathematics as a problem-solving tool in various fields for its beautiful structures and patterns, etc.
- to develop reverence and respect towards great Mathematicians for their contributions to the field of Mathematics;
- to develop interest in the subject by participating in related competitions;
- to acquaint students with different aspects of Mathematics used in daily life;
- to develop an interest in students to study Mathematics as a discipline.


## COURSE STRUCTURE CLASS -IX

| Units | Unit Name | Marks |
| :---: | :--- | :---: |
| I | NUM BER SYSTEM S | 08 |
| II | ALGEBRA | 17 |
| III | COORDINATE GEOM ETRY | 04 |
| IV | GEOM ETRY | 28 |
| V | MENSURATION | 13 |
| VI | STATISTICS \& PROBABILITY | 10 |
|  | Total | $\mathbf{8 0}$ |

## UNIT I: NUMBER SYSTEMS

## 1. REAL NUMBERS

## (16 Periods)

1. Review of representation of natural numbers, integers, rational numbers on the number line Representation of terminating / non-terminating recurring decimals onthe number line through successive magnification. Rational numbers as recurring/ terminating decimals. Operations on real numbers.
2. Examples of non-recurring/ non-terminating decimals. Existence of non-rational numbers (irrational numbers) such $a s \sqrt{2}, \sqrt{3}$ and their representation on the number line. Explaining that every real number is represented by a unique point on the number line and conversely, viz. every point on the number line represents a unique real number.
3. Definition of nth root of a real number.
4. Rationalization (with precise meaning) of real numbers of the type $\frac{1}{a+b \sqrt{x}}$ and $\frac{1}{\sqrt{x}+\sqrt{y}}$ (and their combinations) where x and y are natural number and a and b are integers.
5. 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.)

## UNIT II: ALGEBRA

## 1. POLYNOMIALS

## (23) Periods

Definition of a polynomial in one variable, with examples and counter examples. Coefficients of a polynomial, terms of a polynomial and zero polynomial. Degree of a polynomial. Constant, linear, quadratic and cubic polynomials. Monomials, binomials, trinomials. Factors and multiples. Zeros of a polynomial. Motivate and State the Remainder Theorem with examples. Statement and proof of the Factor Theorem. Factorization of $a x^{2}+b x+c, a \neq 0$ where $a, b$ and $c$ are real numbers, and of cubic polynomials using the Factor Theorem.
Recall of algebraic expressions and identities. Verification of identities:
$(x+y+z)^{2}=x^{2}+y^{2}+z^{2}+2 x y+2 y z+2 z x$
$(x \pm y)^{3}=x^{3} \pm y^{3} \pm 3 x y(x \pm y)$
$x^{3} \pm y^{3}=(x \pm y)\left(x^{2} \mp x y+y^{2}\right.$
$x^{3}+y^{3}+z^{3}-3 x y z=(x+y+z)\left(x^{2}+y^{2}+z^{2}-x y-y z-z x\right)$
and their use in factorization of polynomials.

## 2. LINEAR EQUATIONS IN TWO VARIABLES

Recall of linear equations in one variable. Introduction to the equation in two variables. Focus on linear equations of the type $a x+b y+c=0$. Explain 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 lie on a line. Graph of linear equations in two variables. Examples, problems from real life, including problems on Ratio and Proportion and with algebraic and graphical solutions being done simultaneously.

## UNIT III: COORDINATE GEOMETRY

## COORDINATE GEOMETRY

(6) Periods

The Cartesian plane, coordinates of a point, names and terms associated with the coordinate plane, notations, plotting points in the plane.

## UNIT IV: GEOMETRY

## 1. INTRODUCTION TO EUCLID'S GEOMETRY (Not for assessment)

(6) Periods

History - Geometry in India and Euclid's geometry. 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, for example:
(Axiom) 1. Given two distinct points, there exists one and only one line through them.
(Theorem) 2. (Prove) Two distinct lines cannot have more than one point in common.

## 2. LINES AND ANGLES

(13) Periods

1. (Motivate) If a ray stands on a line, then the sum of the two adjacent angles so formed is $180^{\circ}$ and the converse.
2. (Prove) If two lines intersect, 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 $180^{\circ}$.
6. (Motivate) If a side of a triangle is produced, the exterior angle so formed is equal to the sum of the two interior 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 Congruence).
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. (RHS Congruence)
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 in half of it and (motivate) its converse.

## 5. AREA

(7) Periods

## Review concept of area, recall area of a rectangle.

1. (Prove) Parallelograms on the same base and between the same parallels have equal area.
2. (Motivate) Triangles on the same base (or equal bases) and between the same parallels are equal in area.

## 6. CIRCLES

## (15) Periods

Through examples, arrive at definition of circle and related concepts-radius, circumference, diameter, chord, arc, secant, sector, segment, 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 (or their respective centers) 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 subtends 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 either of the pair of the opposite angles of a cyclic quadrilateral is $180^{\circ}$ and its converse.

## 7. CONSTRUCTIONS

(10) Periods

1. Construction of bisectors of line segments and angles of measure $60^{\circ}, 90^{\circ}, 45^{\circ}$ 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 Heron's formula (without proof) and its application in finding the area of a quadrilateral.
2. SURFACE AREAS AND VOLUMES
(12) Periods

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

## UNIT VI: STATISTICS \& 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. Mean, median and mode of ungrouped data.

## 2. PROBABILITY

(9) Periods

History, Repeated experiments and observed frequency approach to probability. Focus is on empirical probability. (A large amount of time to be devoted to groupand 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).

## MATHEMATICS

## Code (041)

QUESTION PAPER DESIGN
CLASS - IX (2019-20)
Time: 3 Hrs.
Max. Marks: 80

| S. No. | Typology of Questions |  | Short Answer-I (SA) (2 Marks) | Short AnswerII (SA) (3 Marks) | Long Answer (LA) (4 Marks) | Total Marks | \% <br> Weightage <br> (approx.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. | 6 | 2 | 2 | 1 | 20 | 25 |
| 2 | Understanding: Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas | 6 | 1 | 1 | 3 | 23 | 29 |
| 3 | Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way. | 5 | 2 | 2 | 1 | 19 | 24 |
| 4 | Analysing: <br> Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations Evaluating: <br> Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. <br> Creating: <br> Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions | 3 | 1 | 3 | 1 | 18 | 22 |
|  | Total | $20 \times 1=20$ | $6 \times 2=12$ | $8 \times 3=24$ | $6 \times 4=24$ | 80 | 100 |


| INTERNAL ASSESSMENT | $\mathbf{2 0}$ MARKS |
| :--- | :--- |
| Pen Paper Test and Multiple Assessment (5+5) | 10 Marks |
| Portfolio | 05 Marks |
| Lab Practical (Lab activities to be done from the prescribed books) | 05 Marks |

COURSE STRUCTURE CLASS -X

| Units | Unit Name | Marks |
| :---: | :--- | :---: |
| I | NUM BER SYSTEMS | 06 |
| II | ALGEBRA | 20 |
| III | COORDINATE GEOM ETRY | 06 |
| IV | GEOM ETRY | 15 |
| V | TRIGONOM ETRY | 12 |
| VI | M ENSURATION | 10 |
| VII | STATISTICS \& PROBABILTY | 11 |
|  | Total | $\mathbf{8 0}$ |

## UNIT I: NUMBER SYSTEMS

## 1. REAL NUMBER

(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 irrationality of $\sqrt{2}, \sqrt{3} \sqrt{5}$ Decimal representation of rational numbers interms of terminating/ non-terminating recurring decimals.

## UNIT II: ALGEBRA

1. POLYNOMIALS
(7) Periods

Zeros of a polynomial. Relationship between zeros and coefficients of 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 and graphical method of their solution, consistency/ inconsistency.
Algebraic conditions for number of solutions. Solution of a pair of linear equations in two variables algebraically - by substitution, by elimination and by cross multiplication method. Simple situational problems. Simple problems on equations reducible to linear equations.
3. QUADRATIC EQUATIONS
(15) Periods

Standard form of a quadratic equation $a x^{2}+b x+c=0,(a \neq 0)$. Solutions of quadratic equations (only real roots) by factorization, and by using quadratic formula. Relationship between discriminant and nature of roots.

Situational problems based on quadratic equations related to day to day activities to be incorporated.

## 4. ARITHMETIC PROGRESSIONS <br> (8) Periods

Motivation for studying Arithmetic Progression Derivation of the $\mathrm{n}^{\text {th }}$ term and sum of the first $n$ terms of A.P. and their application in solving daily life problems.

## UNIT III: COORDINATE GEOMETRY

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

Review: Concepts of coordinate geometry, graphs of linear equations. Distance formula. Section formula (internal division). Area of a triangle.

## UNIT IV: 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 of 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 angle.
10. CIRCLES

## (8) Periods

Tangent to a circle at, point of contact

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 a circle are equal.

## 3. CONSTRUCTIONS

(8) Periods

1. Division of a line segment in a given ratio (internally).
2. Tangents to a circle from a point outside it.
3. Construction of a triangle similar to a given triangle.

## UNIT V: TRIGONOMETRY

1. INTRODUCTION TO TRIGONOMETRY
(10) 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 $0^{\circ}$ and $90^{\circ}$. Values of the trigonometric ratios of $30^{\circ}, 45^{\circ}$ and $60^{\circ}$. Relationships between the ratios.
2. TRIGONOMETRIC IDENTITIES
(15) Periods

Proof and applications of the identity $\sin ^{2} \mathrm{~A}+\cos ^{2} \mathrm{~A}=1$. Only simple identities to be given. Trigonometric ratios of complementary angles.
3. HEIGHTS AND DISTANCES: Angle of elevation, Angle of Depression. (8) Periods

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

## 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 $60^{\circ}, 90^{\circ}$ and $120^{\circ}$ only. Plane figures involving triangles, simple quadrilaterals and circle should be taken.)
2. SURFACE AREAS AND VOLUMES
(12) Periods

1. 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.
2. 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
(18) Periods

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

Classical definition of probability. Simple problems on finding the probability of an event.

# MATHEMATICS-Standard <br> Code (041) <br> QUESTION PAPER DESIGN <br> CLASS - X (2019-20) 

Time : 3 Hours
Max. Marks: 80

| S. No. | Typology of Questions |  | Short Answer-I (SA) (2 Marks) | Short AnswerII (SA) (3 Marks) | Long Answer (LA) $(4$ Marks) | Total Marks | \% <br> Weightage <br> (approx.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. | 6 | 2 | 2 | 1 | 20 | 25 |
| 2 | Understanding: Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas | 6 | 1 | 1 | 3 | 23 | 29 |
| 3 | Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way. | 5 | 2 | 2 | 1 | 19 | 24 |
| 4 | Analyzing : <br> Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations <br> Evaluating: <br> Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. <br> Creating: <br> Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions | 3 | 1 | 3 | 1 | 18 | 22 |
|  | Total | $20 \times 1=20$ | $6 \times 2=12$ | $8 \times 3=24$ | $6 \times 4=24$ | 80 | 100 |


| INTERNAL ASSESSMENT | $\mathbf{2 0}$ MARKS |
| :--- | :--- |
| Pen Paper Test and Multiple Assessment (5+5) | 10 Marks |
| Portfolio | 05 Marks |
| Lab Practical (Lab activities to be done from the prescribed books) | 05 Marks |

## MATHEMATICS-Basic

Code (241)
QUESTION PAPER DESIGN
CLASS - X (2019-20)
Time : 3Hours

| $\begin{gathered} \text { S. } \\ \text { No. } \end{gathered}$ | Typology of Questions | Very Short AnswerObjective type (VSA) (1 Mark) | Short Answer-l (SA) (2 Marks) | Short AnswerII (SA) (3 Marks) | Long Answer (LA) $(4$ Marks) | Total Marks | \% <br> Weightage <br> (approx.) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. | 5 | 2 | 5 | 2 | 32 | 40 |
| 2 | Understanding: Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas | 7 | 1 | 1 | 4 | 28 | 35 |
| 3 | Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way. | 5 | 2 | 1 | - | 12 | 15 |
| 4 | Analyzing: <br> Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations Evaluating: <br> Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. <br> Creating: <br> Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions | 3 | 1 | 1 | - | 8 | 10 |
|  | Total | $20 \times 1=20$ | $6 \times 2=12$ | $8 \times 3=24$ | $6 \times 4=24$ | 80 | 100 |


| INTERNAL ASSESSMENT | 20 MARKS |
| :--- | :--- |
| Pen Paper Test and Multiple Assessment (5+5) | 10 Marks |
| Portfolio | 05 Marks |
| Lab Practical (Lab activities to be done from the prescribed books) | 05 Marks |

## PRESCRIBED BOOKS:

1. Mathematics - Textbook for class IX - NCERT Publication
2. Mathematics - Textbook for class X - NCERT Publication
3. Guidelines for Mathematics Laboratory in Schools, class IX - CBSE Publication
4. Guidelines for Mathematics Laboratory in Schools, class X - CBSE Publication
5. Laboratory Manual - Mathematics, secondary stage - NCERT Publication
http://www.ncert.nic.in/exemplar/labmanuals.html
6. Mathematics exemplar problems for class IX, NCERT publication.
7. Mathematics exemplar problems for class $X$, NCERT publication.

## ENGLISH LANGUAGE AND LITERATURE

(Code No. 184) (2019-20)

## Background

Traditionally, language-learning materials beyond the initial stages have been sourced from literature: prose, fiction and poetry. While there is 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
- develop the ability and knowledge required in order to engage in independent reflection and inquiry
- use appropriate English to communicate in various social settings
- equip learners with essential language skills to question and to articulate their point of view
- build competence in the different registers of English
- develop sensitivity to, and appreciation of, other varieties of English, like Indian English, and the culture they reflect
- enable the learner to access knowledge and information through reference skills (consulting a dictionary / thesaurus, library, internet, etc.)
- develop curiosity and creativity through extensive reading
- facilitate self-learning to enable them to become independent learners
- review, organise and edit their own work and work done by peers
- build listening and speaking into the curriculum.


## 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 email etc.
- 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 in the form of article, speech, or a debate
- 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)
- transcode information from a graph / chart to a description / report and write a dialogue, short story or report


## Language Items

In addition to consolidating the grammatical items practised earlier, the courses at the secondary level 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 is based on a multi-skill, activity-based, learner-centered approach. Care is taken to fulfill the functional (communicative), literary (aesthetic) and cultural (sociological) needs of the learner. In this situation, the teacher is the facilitator of learning, She/he presents language items, contrive 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. A few suggested activities are:

- Role play
- 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) SYLLABUS CLASS - IX (2019-20) SECTION - WISE WEIGHTAGE

| Section |  | Total Weightage <br> 80 |
| :--- | :--- | :---: |
| A | Reading Skills | 20 |
| B | Writing Skills with Grammar | 30 |
| C | Literature Textbook and Supplementary <br> Reading Text | 30 |

Note-The annual board examination will be of 80 marks, with a duration of three hours. There will be internal assessment for 20 Marks.

## SECTION A: READING

50 Periods
This section will have two reading passages.
20 Marks
1: A Factual passage 300-350 words with eight Objective Type Questions( including Multiple Choice Questions). 8 marks

2 A Discursive passages of 350-400 words with four Short Answer Type Questions to test inference, evaluation and analysis four Objective Type Questions (including Multiple Choice Questions) to test vocabulary.
12 marks

## SECTION B: WRITING AND GRAMMAR

60 Periods
For writing tasks there will be internal choice. 30 Marks
3: Writing an Article/Descriptive Paragraph (person/place/event/diary entry) in about 100-150 words based on visual or verbal cue/s. The questions will be thematically based on the prescribed books.

4: Writing a short story based on a given outline or cue/s in about 150-200 words. 10 marks
The Grammar syllabus will include the following areas
i. Tenses
ii. Modals
iii. Use of passive voice
iv. Subject - verb concord
v. Reporting
vi. Commands and requests
vii. Statements
viii. Questions
ix. Clauses:
a. Noun clauses
b. Adverb clauses of condition and time
c. Relative clauses
x. Determiners
xi. Prepositions

The above items may be tested through test types(grammar in context) as given below:
5: Gap filling with one or two words to test Prepositions, Articles, Conjunctions and Tenses. 4 marks

6: Editing or omission
4 marks
7: Sentences reordering or sentence transformation in context.
4 marks

## SECTION C: LITERATURE TEXTBOOKS

60 Periods
There will be Internal Choice for every question.
30 Marks
8. One out of two extracts from prose/poetry/play for reference to the context. Four Objective Type Questions: two questions of one mark each on global comprehension and two questions of one mark each on interpretation.
( $1 \times 4=4$ marks)
9 Five Short Answer Type Questions from BEEHIVE AND MOMENTS (3 questions out of four from BEEHIVE and 2 questions out of three from MOMENTS) to test local and global comprehension of theme and ideas (to be answered in 30-40 words each) (2x5=10 marks)
10. One out two long answer type questions from the book BEEHIVE to assess creativity, imagination and extrapolation beyond the text and across the texts. ((to be answered in 100-150 words each )

8 marks
11 One out of two Long Answer Questions from the book MOMENTS on theme or plot involving interpretation, extrapolation beyond the text and inference or character sketch in about (100-150 words).

8 marks

## Prescribed Books: Published by NCERT, New Delhi

- BEEHIVE - Textbook for class IX
- MOMENTS - Supplementary Reader for Class IX
- Words and Expressions-I, Workbook


## 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-talk time and keep it 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.

Besides measuring attainment, texts serve the dual purpose of diagnosing mistakes and areas of non-learning. To make evaluation a true index of learners' attainment, each language skill is to be assessed through a judicious mixture of different types of questions.

1. Reading Section: Reading for comprehension, critical evaluation, inference and analysis are skills to be tested.
2. Writing Section: All types of short and extended writing tasks will be dealt with.
3. Grammar: Grammar items mentioned in the syllabus will be taught and assessed.

## INTERNAL ASSESSMENT

Assessment of Listening and Speaking Skills 50 Periods
Assessment of Listening and Speaking Skills will be for 05 marks. It is recommended that listening and speaking skills should be regularly practiced in the class. Art-integrated activities like Role Play, Skit, Dramatization etc. can also be used.

ENGLISH LANGUAGE AND LITERATURE (Code No. 184)

## Textbooks

Literature Reader- Course (2019-20) CLASS - IX

| PROSE (Beehive) |  |
| :--- | :--- |
| 1. The Fun They Had | 7. Packing |
| 2. The Sound of Music | 8. Reach for the Top |
| 3. The Little Girl | 9. The Bond of Love |
| 4. A Truly Beautiful Mind | 10. Kathmandu |
| 5. The Snake and the Mirror | 11. If I were you |
| 6. My Childhood |  |
| POETRY |  |
| 1. The Road Not Taken | 6. No Men Are Foreign |
| 2. Wind | 7. The Duck and the Kangaroo |
| 3. Rain on the Roof | 8. On Killing a Tree |
| 4. The Lake Isle of Innisfree | 10. A Slumber did My Spirit Seal |
| 5. A Legend of the Northland |  |
| SUPPLEMENTARY READER (Moments) |  |
| 1. The Lost Child | 6. Weathering the Storm in Ersama |
| 2. The Adventures of Toto | 7. The Last leaf |


| 3. Iswaran the Storyteller | 8. A House is Not a Home |
| :--- | :--- |
| 4. In the Kingdom of Fools | 9. The Accidental Tourist |
| 5. The Happy Prince | 10. The Beggar |

ENGLISH LANGUAGE AND LITERATURE
(Code No. 184) CLASS - IX (2019-20)
Marks=80

| Typology | Testing Competencies | Objective Type Question including MCQs(1 mark each | Short <br> Answer <br> Question <br> 30-40 <br> words <br> (2 marks each) | Long <br> Answer Question 1 100-150 words (HOTS)(8 marks each) | Very Long Answer Question 150-200 words (HOTS) (10 marks each) | Total marks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reading Comprehension | Conceptual understanding, decoding, analyzing, inferring, interpreting and vocabulary | 4 MCQ <br>  <br> 8 Objective <br> Type Questions | 4 | - | - | 20 |
| Writing Skill and Grammar | Creative expression of an opinion, reasoning, justifying, illustrating, appropriacy of style and tone, using appropriate format and fluency. <br> Applying conventions, using integrated structures with accuracy and fluency | 12 | - | 1 | 1 | 30 |
| Literature Textbook and Supplementary Reading Text | Recalling, reasoning, appreciating, applying literary conventions illustrating and justifying etc. Extract relevant information, identifying the central theme and sub-theme, understanding the writers' message and writing fluently. | 4 | 5 | 2 | - | 30 |
| Total |  | 1x28=28 | 2x9=18 | $8 \times 3=24$ | $\begin{aligned} & 10 \times 1= \\ & 10 \end{aligned}$ | 80 |

ENGLISH LANGUAGE AND LITERATURE (Code No. 184)
CLASS - X 2019-20
SECTION - WISE WEIGHTAGE IN ENGLISH LANGUAGE AND LITERATURE

| Section |  | Total Weightage 80 |
| :--- | :--- | :---: |
| A | Reading Skills | 20 |
| B | Writing Skills with Grammar | 30 |
| C | Literature Textbooks and Supplementary <br> Reading Text | 30 |
|  | TOTAL | 80 |

Note: The annual board examination will be of 80 marks, with a duration of three hours. There will be internal assessment for $\mathbf{2 0}$ Marks.

## SECTION A: READING

## 50 Periods

20 Marks
This section will have two unseen passages of a total length of 700-750. The arrangement within the reading section is as follows:
I. A factual passage of 300-350 words with eight Objective Type Question( including Multiple Choice Questions). 8 marks
II.A Discursive passages of 350-400 words with four Short Answer Type Questions to test inference, evaluation and analysis four Objective Type Question( including Multiple Choice Questions) to test vocabulary. 12 marks

## SECTION B: WRITING AND GRAMMAR 60 Periods

For writing tasks there will be internal choice
III. Formal letter complaint / inquiry / placing order / letter to editor / article in about 100-150 words. The questions will be thematically based on the prescribed books. 8 marks
IV. Writing a short story based on a given outline or cue/s in about 150-200 words. 10 marks

The Grammar syllabus will include the following areas in class $X$.

1. Tenses
2. Modals
3. Use of passive voice
4. Subject - verb concord
5.Reporting
(i) Commands and requests
(ii) Statements
(iii) Questions
5. Clauses:
(i) Noun clauses
(ii) Adverb clauses
(iii) Relative clauses
6. Determiners
7. Prepositions

The above items may be tested through test types given below:
V Gap filling with one or two words to test Prepositions, Articles, Conjunctions and Tenses. 4 marks

VI Editing or omission.
4 marks
VII Sentences Reordering or Sentence Transformation in context.
4 marks

## SECTION C

## LITERATURE TEXTBOOKS AND SUPPLEMENTARY READING TEXT 60 Periods

Internal choice will be there.
30 Marks
VIII. One out of two extracts from prose/poetry/drama for reference to context. Four Objective Type Question( including MCQs): Two questions of one mark each on global comprehension and two questions of 1 mark each on interpretation. 4 marks
IX. Five Short Answer type Questions to be answered in 30-40 words each from FIRST FLIGHT and FOOTPRINTS WITHOUT FEET to test local and global comprehension of theme and ideas( three from FIRST FLIGHT and two from FOOTPRINTS WITHOUT FEET) . $2 \times 5=10$ marks
X. One out of two Long Answer type Questions from FIRST FLIGHT to be answered in about 100-150 words to assess creativity, imagination and extrapolation beyond the text and across the texts.
XI. One out of two long answer question from the book 'FOOTPRINTS without FEET' on theme or plot involving interpretation, extrapolation beyond the text and inference or character sketch to be answered in about 100-150 words. 8 marks

## Prescribed Books: Published by NCERT, New Delhi

- FIRST FLIGHT - Text for Class $X$
- FOOTPRINTS WITHOUT FEET - Supplementary Reader for Class X


## 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 and keep it 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) continue the Speaking and Listening activities given in the NCERT books.

Besides measuring attainment, texts serve the dual purpose of diagnosing mistakes and areas of non-learning. To make evaluation a true index of learners' attainment, each language skill is to be assessed through a judicious mixture of different types of questions.

1. Reading Section: Reading for comprehension, critical evaluation, inference and analysis are skills to be tested.
2. Writing Section: All types of short and extended writing tasks will be dealt with.
3. Grammar: Grammar items mentioned in the syllabus will be taught and assessed over a period of time. There will be no division of syllabus for Grammar.

## INTERNAL ASSESSMENT

Assessment of Listening and Speaking Skills 50 Periods

Assessment of Listening and Speaking Skills will be for 05 marks. It is recommended that listening and speaking skills should be regularly practiced in the class.Art-integrated activities like role-play, skit, dramatization etc. can also be used.

ENGLISH LANGUAGE AND LITERATURE (Code No. 184) Course (2019-20) CLASS - X

| Textbooks |  |
| :--- | :--- |
| Literature Reader (First Flight) |  |
| PROSE (First Flight) | 7.Glimpses of India 8.Mijbil the Otter |
| 1.A Letter to God | 9.Madam Rides the Bus |
| 2.Nelson Mandela: Long Walk to Freedom |  |
| 3.Two Stories about Flying | 11. The Sermon at Benares |
| 4.From the Diary of Anne Frank Proposal |  |
| 5.The Hundred Dresses -I |  |
| 6.The Hundred Dresses -II | 7. Animals |
| POETRY | 8.The Trees |
| 1.Dust of Snow |  |
| 2.Fire and Ice | 9.Fog |
| 3.A Tiger in the Zoo |  |
| 4.How to Tell Wild Animals |  |
| 5.The Ball Poem |  |
| 6. Amanda |  |


| 1.A Triumph of Surgery | 6.The Making of a Scientist |
| :--- | :--- |
| 2.The Thief's Story | 7.The Necklace |
| 3.The Midnight Visitor | 8.The Hack Driver |
| 4.A Question of Trust | 9.Bholi |
| 5.Footprints without Feet | 10. The Book that Saved the Earth |

## ENGLISH LANGUAGE AND LITERATURE <br> CLASS - X (2019-20)(Code no.184)

## Marks 80

| Typology | Testing competencies | Objective Type Question including MCQs (1 mark each) | Short <br> Answer <br> Question <br> 30-40 <br> words <br> (2 marks <br> each) | Long Answer Question 100-150 words (8 marks each) | Very Long Answer Question 150-200 words (10 marks each) | Total marks |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Reading Comprehensi on | Conceptual Understanding, decoding Analyzing, inferring, interpreting and vocabulary | 4 MCQ+ 8 Objective Type Questions | 4 | - | - | 20 |
| Writing Skill and Grammar | Creative expression of an opinion, reasoning, justify, illustrating, appropriacy of style and tone, using appropriate format and fluency, applying conventions, using integrated structures with accuracy and fluency. | 12 | - | 1 | 1 | 30 |
| Literature Textbook and Supplementar y Reading Text | Recalling, reasoning, appreciating, applying literary conventions extrapolating, illustrating and justifying etc. Extracting relevant information, identifying the central theme and subthemes, understanding the writer's message and writing fluently. | 4 | 5 | 2 | - | 30 |
| Total |  | 1×28=28 | 2x9=18 | 8x3=24 | 10x1=10 | 80 |

# PUNJABI 

(2019-20)

## Code No - 004

## Class IX

## One Paper

सिव थेयठ

3Hrs
3 யँटे

MM 80
भंव 80

## 






1. मलात्रा सिषडी थठीषिभा
(Year End Written Exam - 80)

| प्टिबग्टी /मिषटट टा षेउठ | भंव | यीटीभउ |  |
| :---: | :---: | :---: | :---: |
| डग्न |  |  |  |
|  | 15 | 20 |  |
| (भ) टिभावठठ | 20 | 35 |  |
| (घ) पूठग्टम़ग्ली लिषट वेग्रू | 25 | 40 |  |
|  | 20 | 55 |  |

2. भांडगिव भुलावट
(Internal Assesment - 20)

| विविभrउभव बंभ <br> (Activity/Assignment) | 20 |  | 30 |  |
| :--- | :--- | :--- | :--- | :--- |

# थंक्षग्घी-004 <br> IX (हंदीं) <br> (भयूपू 2019 ऊं भग्गठ 2020) <br> मलיగా पगीषिभా 

## व్ल भீव 80

I. पर्యत-वँम़ल (Reading Skill)

छग्ठ हँटे यूम्सर $(2+2+2+2+)+1$ भंव मिठलेष लप्टी
2. भटर्टठठी वर्गद ट्रवड़ी గएल मिर्षयिउ (fिंत यूम्नत)
$(3 \times 2)=6$
II. दिभावठठ (घर्णिद्यली भंडे हटे यूम्नत) (Grammer) 20

1. हिठयी मघट (घग्रिद्रल्यी)
2. लिंता (घग्टिल्यी) 1X3=3
3. मघघट फ़्रॉयी (घण्चिवल्यी) $1 \times 3=3$
4. टिम्मभि (छटे यूम्नळ) 1X3=3
5. विरिभा (दटे पूम्नर) $1 \mathrm{X} 4=4$
6. मुण्दठे (В ऊं Ј उॅव) (छटे यूम्मत) 1X4=4
III. यू उग्टम्नम्ली लिষट-वँसल (Writing Skill) 25
7. लेष-ठबता (दिछग्ठ पूटाठ भठे भान दिमे) 200 म्रघ्ट 10
(fिंत लेष चंट भयर्गठड-ठ्रर्वभभं मगिउ)
8. पॅउठ-ठठठा (टिनी डे टढउठी) 08


IV. यठठ-थ्युउवां डे भयर्गठड (Text Books)20
9. भडि ढटटे यूमत ( 1 भंव हाल्ट)



(वग्टी डे सीटरी fिँचं)
10. दॅछे छैउठां हएले पूम्मत (50 ऊं 60 म्नघटां दिँछ)
(वट्दिउ, हागउव निनं) (चट भयगठउ)
11. पिवांगी ’ु (50 ऊं 60 मघटां हिँु)
(चँट भयर्गठउ)

## हिउयगवड थाठ-थुमउवां

1. मर्गगउव विठठां-1

2. मिभमल ठुध मवर्मिठ (ठाठ ठारव टेद नी)
3. मभां (बाप्टी टीठ मिंय)
4. में थंज्ञाप्दी, थंज्ञा्व टा उगिट टाप्ला (हीगक्सहीत मव.ढ)
5. Јॅध (मिद्वर्वाग घटाल्लदी)

6. ฮॉयघ'न्त्र (fिभाग fिंय हाउउ)

7. थंताप्वी दिठमा (गवरेत्र fिंथ रागल्र)
8. मगणउव वंठा-1

वउग्टीभां - 1. सिव मयग्ट भान्टभी (मिउँष fिंय यीव)
2. भूट्टेत्र ठा ड़्ड उठों घाप्वला (घंड fिंद् ॅॅठा)





\begin{tabular}{|c|c|c|c|c|c|c|}
\hline ब्रु \({ }^{\text {万人 }}\) \& मिष्षट निधाणिट ही मुखांबट दियी/वैस्ल यमвरां टौभां विमभां \& \[
\begin{aligned}
\& \text { हैटे थमू } \\
\& 1 \text { भुंब }
\end{aligned}
\] \&  \& \[
\begin{array}{cc}
\text { सेभे पूसत } \\
3,7,8 \& \text { Mडे } \\
10 \text { niव }
\end{array}
\] \& भंब \& \% \\
\hline 1. \& जा्ट đॅधटजना (याठ प्रमउवां उे भय \&  \& \(3 \times 2=(6)\) \& \[
\begin{aligned}
\& 1(3) \\
\& 1(3) \\
\& \text { (LQ) }
\end{aligned}
\] \& 20 \& 25.00\% \\
\hline 2. \& भभ₹-मेश भपग्वड (fिभात घेय-Mटाइँठ थैठ फाडे भटाइठी वर्ध ट्रवही) \&  \& \[
\begin{gathered}
\hline 7(2) \\
7 \times 2=(14)
\end{gathered}
\] \& - \& 15 \& 18.75\% \\
\hline 3. \& \begin{tabular}{l}
fिग्गव (fि्डगव निभान्त से कहें fिपंड भถुमाठउ विमні \\
मिठत्तटारमव (मीघडी नां दिधार टी यठघ ถटी गठठाउमव нखांबट)
\end{tabular} \& 9 (घण्-द्ववस्यी) (MCQ) 11 (ढटे छैँउठ दाल्ले प्म्मत) (VSQ) \& - \& \begin{tabular}{l}
1 (7) \\
1 (8) \\
1(10) \\
(LQ)
\end{tabular} \& \begin{tabular}{l}
20 \\
25
\end{tabular} \& 25.00\%

$31.25 \%$ <br>
\hline \& बूल भंव \& 29 \& 20 \& 31 \& 80 \& 100\% <br>
\hline
\end{tabular}

## 

## Guidelines for Internal Activity/Assessment


 टे उगिउ-

| 10 rid | सिषडी यूपिभभ (नभञ्ड टैमट) |
| :---: | :---: |
| 5 भंव | गाडीद्योभां (ASSIGNMENT) नभाड भठे யठ टा वँभ, भूलंबट थॅउठ डे भयगवड |
| 5 भरव | LS (म్రटగ, घ̄लट 'उे भयगठउ) |


 वैभूल (Speaking Skill) भถ्रमग रीउा साग्टेगा।

| fिद्जांता दिस्भागघीभां लट्टी |  |
| :---: | :---: |
| भाग टिसिभागषी हा घल मरहा चै डे ठा ठी मुट मरहा तां <br> बेद्य मुट मरहा चै थठ घंल्ल గगीं मरहा तां <br> बेदूल घंल मरहा चै थठ मृ ठठीं मरहा |  <br>  डे वलपरा मूरी सा तिटीषट रीउा सा मरहा चै। मघ्रां टी मीभा <br> रेदीं सभग्ड लप्टी 150-200 मघस <br> टॅमदीं तभाउ लप्टी 250-300 माप्य |


|  | दिम्ग | भुलांवट fियी |
| :---: | :---: | :---: |
| 1. |  | 1. मघप्ट कंइग्र <br> 2. ग्णठाउभव <br> 3. थेम्नवग्ठी |
| 2. |  | 1. उग्म़ ही मु₹-घ्ञश <br> 2. मदै-उठमा <br> 3. ग्ठठ ही यठष <br> 4. थेम्नवग्ठी |
| 3. |  हैडिवडा | 1. पेम्नरग्ठी टा ग्रठ <br> 2. गौठाउभवडा <br>  मु <br> 4. मघ्वर्ट्टी <br> 5. टिभवरीठाउ छैउभउा |
| 4. |  | 1. उग्मा-विभाभ <br> 2. म्नघट कंइग्र <br> 3. पूठग्हम्नग्ली लिषउ <br> 4. गौठाउमのउा |
| 5. | दिसिभागघी से विभात्र वारिट्ट वठत से नूउ। निदेंथग्ठ थ्रमउवां, पिंटठरेट भडे चँठ मूं | 1. म゙लिबउा <br> 2. गचठाउभव <br> 3. उठव उठथ్ जनाउा |


| 6. |  | 1. मैलिबडा <br> 2. टिठंउतउा <br> 3. वलयका <br> 4. थेम्नवग्ठी (ग्ट-ठा्ट गग्गों) |
| :---: | :---: | :---: |
| 7. | उग्मा छैठग्वर-भठष उठश్ <br> 1. टिभवडी <br> 2. मभ్ळण नॅँ | 1. ठीव मप्वश्ट्टी सा पूरना वठठा <br> 2. ठीव हाव घटण्ठिटा <br> 3. मगी म्नप्ट चट <br> 4. मगी घूल甘ए्ल |
| 8. |  | 1. गारिट्ट वठठा <br> 2. वलपटा <br> 3. थेम्नवग्ठी <br> 4. दिच्ठ पूठटाभ <br> 5. महै उठमा <br>  |

## तिठपग्ग गाउीट्दिभभां (Suggested Topics for Activity)

1. म्रसेष
2. वद्वा छिचग्वर ( (स्ती)
3. उग्मट्ट म्वर्यला
4. हाव्त-दिद्या्त
5. वृदिक्ति (यूम्नरउउती)
6. ताटव भैचट
7. टित-डउछिणग्ठ घग्ठे नाटवग्ठी
8. प्रठग्उत भॅडिभम्ठग्ठ
9. लेवगीउ
10. चर्लंड யटठग्दां चा दठटर

 गेठ Јदेगा।

# PUNJABI 

(2019-20)

## Code No - 004

Class X

One Paper
दिव भेयठ

3Hrs
3 யึटे

MM 80
भंव 80

## भंक्षम्घी उग्मा मिघटट से छिटेप्र






1. मलाता सिषड्डी पठीषिभा
(Year End Written Exam - 80)

| प्टिरम्टी /f̆ॅधट टा धेउत | भंव | थीवोभउ |  |
| :---: | :---: | :---: | :---: |
| डग्रा |  |  |  |
|  | 15 | 20 |  |
| (भ) टिभावठत | 20 | 35 |  |
|  | 25 | 40 |  |
|  | 20 | 55 |  |

2. भांडगिव भुलावट
(Internal Assesment - 20)

| विविभग्उमव बंभ <br> (Activity/Assignment) | 20 |  | 30 |  |
| :--- | :--- | :--- | :--- | :--- |

# थंक्षम्पी-004 <br> X (टमदीं) <br> (भयूल 2019 テं भगठठ 2020) 

## मल్గా पठीfिभा

$$
\text { व్రल भiव } 80
$$

I. पत्रठ-वँम्नल (Reading Skill) ..... 15

1. भर्टइॅठ थैठ (ट्गउव) 200-250 मघघटां fिँ ..... 9
छण हटे यूम्न $(2+2+2+2)+1$ भंव मिठकेष लप्टी
$(3 X 2)=6$
 ..... 20
2. मभग्मी मघघ (घग्गिद्वलयी) ..... 4
3. घग्भगषव (घग्रिद्रली) ..... 4
4. निठिभा निम्सेम्नट (घग्रद्वल्यी) ..... 4
5. भठोउठ-पिढेउठ ..... 4
6. भुग्टने (व ऊं इ ऊॅव) ..... 4
 ..... 25
 ..... 10(fिंत लेष चंट भयर्गठउ-ळ्रवउभां मगिउ)
7. Чॅउठ-ठठठा (ठिनी डे टढउती) ..... 08
07
IV. यठठ-थ्रमउवां डे भयगठठ (Text Books) ..... 20
8. भाड हटे यूमत (1 भंव हाले)

(भ) वट्डा डे पिवांगी टिँनं (टूव म्नघट टाले)

(वग्टी डे नीटरी fिॅनं)
9. दॅठे छैउठं हग्ले पूम्तर (50 ऊं 60 मघ्यतां दिॅछ)
(वट्डा, हग्उव दिनं) (चट भयर्गठउ)
10. पिवांगी ’Э (50 ऊं 60 मघटां हैँ $)$
(चँट भयर्गठउ)

## तिउयम्गिड पाठ-थ्रमउवरं

## 1. मगगउव विठठां-2


2. ठींभ रे ठमेप्टी निँच (वम्नभीठ ठीठ)

4. भग्ट-यंक्षप्वी सा (वृल्टंड मिंय व.ढीव)

हग्गउव - 1. भा्टउां (गग्तिसत fिंय)
2. वैंवड भुे उढ़िभै सी भाठ (उा. गरमिंसठ वंठ)
3. पॅद्नं टीभां पैट वटीभां (यू उस ग्राल्ल)
4. रंक्षम्व हे लूवगीउ (डेक्षिसत वँठ)

2. मगणउव ंता- 2

वग्टीभं - 1. में विमे ऊं ऑॅट ठठों (टगम्रत fिंथ भम्नट)
2. पौभठ ढंत (घर्लटिट्टठ मिंध नेढी)
3. ट्रम्भमी (घल्लटिट्टठ fिंय घठग्इ)

टिवांगी - घेषे गग्न उतकी (यू. भम्टी. मी. रंटा)
नीदतीभां - 1. घीपी उाती ती (मुर्थहिंटठ वंठ)




नभग्ड टमटीं थंक्पप्री दिमे टीभां गडीदियीभां भडे भूलांवट

## Guidelines for Internal Activity/Assessment


 टे उगिउ-

| 10 मैव | सिधडी पू¢िभभ (नभाड हैमट) |
| :---: | :---: |
| 5 भंव | ठाडीद्यीभां (ASSIGNMENT) त्रभंड भडे खठ Eा बंभ, मलंवट थॅउठ डे भयगठड |
| 5 भia | LS (म్రटగ, घंलट 'उे भपगठड) |


 बँमूल (Speaking Skill) भठ्रमग वीउा सग्टेठा।

| सिद्जांग टिसिभ्गयीभां लप्टी |  |
| :---: | :---: |
| भवार दिस्टिभवषी ठा घंल भरहा नै डे ठा गी मृट मरET नां <br> बेहल म्ट मरहा नै थठ घंल रणीं मरडा सां <br> बेटल घंल मरहा चै थठ मट हीी मवरा |  <br>  डे वल्रठा म्नूउी टा तिटीषट रीउा सा मरहा चै। मघटां टी मीभा <br> रंदीं नभुउ लपी 150-200 मघट <br> टॅमदीं सभाउ लप्टी 250-300 म्नघट |


|  | दिम्र | भुलांवट दियी |
| :---: | :---: | :---: |
| 1. |  | 1. मघप छंडग्र <br> 2. ग्ठराउभव <br> 3. थेम्परग्ठी |
| 2. |  |  <br> 2. मदे-उठम्म <br> 3. ग्रठ ही यठध <br> 4. थेम्पवग्ठी |
| 3. |  हैडिवडा | 1. थेम्नरग्ठी टा ग्रठठ <br> 2. ग्ठराउमवउा <br> 3. हिमें గ़ गाणिट वठर ही मु <br> 4. मघपता्टम्ली <br> 5. ट्भिवडीठाउ छैउभउा |
| 4. |  | 1. उग्मा-विभाभ <br> 2. मघपत कंठग्ठ <br> 3. पूठ्ठग्हम्नग्ली लिध्षउ <br> 4. ग्बहाउमबडा |
| 5. | दिसिभागपी से विभात वारिट्ट वरत से मूंड। निदेंयग्ठ थ्रमउवं, पिंटठरेट भडे चठ मूंड | 1. मैलिबडा <br> 2. ग्ठठाउभव <br> 3. उतर उठथ्रठ जनाउा |


| 6. |  | 1. मंलिखउा <br> 2. टिठंउठउा <br> 3. वस्यठा <br> 4. पेम्नवग्ठी (ग्ट-का्ट ठगीं) |
| :---: | :---: | :---: |
| 7. |  <br> 1. टिभवडी <br> 2. मभ్ळण दॅँ | 1. ठीव मघृटा्हली हा थूजगा वठठा <br> 2. ठीव दाव घटहिटा <br> 3. मगी म्नप्त चंट <br> 4. मगी घম |
| 8. |  | 1. गारिट्ट वठरा <br> 2. वल्लथठा <br> 3. पेम्नवग्ठी <br> 4. दिस्ठ पूठटाभ <br> 5. महै उतुमा <br> 6. मफ్ّुछ प्ठाट्ड |

## तिठयग्ड गठीट्टयीभां (Suggested Topics for Activity)

1. मुसेष
2. वर्डा छिचग्वत (सष्ती)
3. उग्मट म्ववप्यल
4. हा्त-fिह्य
5. वृद्टित्त (यूम्मतउठती)
6. ताटर भेचट
7. टित-उिछिणग्ठ घग्ठे नाटवग्ठी
8. प्रठग्उत भॅडिभम्ठग्ठ
9. लेवगीउ
10. चरूंड uटठग्दां चा दठटर

 गेठ Јदेगा।

## SOCIAL SCIENCE CLASS IX-X (2019-20) <br> (CODE NO. 087)

## Rationale

Social Science is a compulsory subject up to 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 Science curriculum draws its content mainly from History, Geography, Political Science 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 to understand society from different angles and form a holistic view.

## Objectives

The main objectives of this syllabus are to:

- develop an understanding of the processes of change and development-both in terms of time and space, through which human societies have evolved
- 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
- 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
- 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
- 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
- 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
- facilitate the learners to understand and appreciate the diversity in the land and people of the country with its underlying unity
- develop an appreciation of the richness and variety of India's heritage-both natural and cultural and the need for its preservation
- promote an understanding of the issues and challenges of contemporary Indiaenvironmental, economic and social, as part of the development process
- 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
- develop scientific temperament 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
- 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
- develop qualities clustered around the personal, social, moral, national and spiritual values that make a person humane and socially effective.


## COURSE STRUCTURE <br> CLASS IX (2019-20)

## Theory Paper

| Time: 3 Hrs. |  | Max. Marks: $\mathbf{8 0}$ |  |
| :---: | :--- | :---: | :---: |
| No. | Units | No. of Periods | Marks |
| I | India and the Contemporary World - I | 60 | 20 |
| II | Contemporary India - I | 55 | 20 |
| III | Democratic Politics - I | 50 | 20 |
| IV | Economics | 50 | 20 |
| Total |  | $\mathbf{2 1 5}$ | $\mathbf{8 0}$ |

## COURSE CONTENT

| Unit 1: India and the Contemporary World - I |  |
| :--- | :--- |
| Themes | Learning Objectives Periods |
| Section 1: Events and Processes: (All the |  |
| three themes are compulsory) | In each of the themes in this unit <br> students would get familiarized with <br> distinct ideologies, extracts of <br> speeches, political declarations, as <br> well as the politics of caricatures, <br> posters and engravings. Students <br> would learn how to interpret these |


|  |  |  |
| :--- | :--- | :--- |
| I. The French Revolution: |  |  |
| - French Society During the Late |  |  |
|  | Eighteenth Century |  |
| - The Outbreak of the Revolution |  |  |
| - France Abolishes Monarchy and |  |  |
|  | Becomes a Republic |  |
| - Did Women have a Revolution? |  |  |
| - The Abolition of Slavery |  |  |
| - The Revolution and Everyday Life |  |  |

II. Socialism in Europe and the Russian Revolution:

- The Age of Social Change
- The Russian Revolution
- The February Revolution in Petrograd
- What Changed after October?
- The Global Influence of the Russian Revolution and the USSR
III. Nazism and the Rise of Hitler:
- Birth of the Weimar Republic
- Hitler's Rise to Power
- The Nazi Worldview
- Youth in Nazi Germany
- Ordinary People and the Crimes Against Humanity


## Section 2: Livelihoods, Economies and

## Societies:

## Any one theme of the following:

IV. Forest Society and Colonialism:

- Why Deforestation?
- The Rise of Commercial Forestry
- Rebellion in the Forest
- Forest Transformations in Java
kinds of historical evidences.
- Familiarize with the names of people involved, the different types of ideas that inspired the revolution, the wider forces that shaped it.
- Know the use of written, oral and visual material to recover the history of revolutions.
- Explore the history of socialism through the study of Russian Revolution.
- Familiarize with the different types of ideas that inspired the revolution.
- Discuss the critical significance of Nazism in shaping the politics of modern world.
- Get familiarized with the speeches and writings of Nazi Leaders.
- Discuss the social and cultural world of forest communities through the study of specific revolts.
- Understand how oral traditions can be used to explore tribal

| V. Pastoralists in the Modern World: <br> - Pastoral Nomads and their Movements <br> - Colonial Rule and Pastoral Life <br> - Pastoralism in Africa | revolts. <br> - Highlight varying patterns of developments within pastoral societies in different places. <br> - Analyse the impact of colonialism on forest societies, and the implication of scientific forestry. <br> - Show the different processes through which agrarian transformation may occur in the modern world. <br> - Analyse the impact of modern states, marking of boundaries, processes of sedentarization, contraction of pastures, and expansion of markets on pastoralism in the modern world. |
| :---: | :---: |
| Unit 2: Contemporary India - I | 55 Periods |
| Themes | Learning Objectives |
| 1. India <br> - Size and Location <br> - India and the World <br> - India's Neighbours | - Identify the location of India in the Indian subcontinent. |
| 2. Physical Features of India: <br> - Major Physiographic Divisions | - Understand the major landform features and the underlying geological structure; their association with various rocks and minerals as well as nature of soil types. |
| 3. Drainage: <br> - Major rivers and tributaries <br> - Lakes <br> - Role of rivers in the economy <br> - Pollution of rivers | - Identify the river systems of the country and explain the role of rivers in the human society. |

4. Climate:

- Concept
- Climatic Controls
- Factors influencing India's climate
- The Indian Monsoon
- Distribution of Rainfall
- Monsoon as a unifying bond


## 5. Natural Vegetation and Wild Life:

- Factors affecting Vegetation
- Vegetation types
- Wild Life
- Conservation


## 6. Population:

- Size
- Distribution
- Population Growth and Process of Population Change
- Identify various factors influencing the climate and explain the climatic variation of our country and its impact on the life of the people.
- Explain the importance and unifying role of monsoons.
- Explain the nature of diverse flora and fauna as well as their distribution.
- Develop concern about the need to protect the biodiversity of our country.
- Analyse the uneven nature of population distribution and show concern about the large size of our population.
- Identify the different occupations of people and explain various factors of population change.
- Explain various dimensions of National Population Policy and understand the needs of adolescents as underserved group.

Unit 3: Democratic Politics - I

## Themes

1. What is Democracy? Why Democracy?:

- What is Democracy?
- Features of Democracy
- Why Democarcy?
- Broader Meaning of Democracy

50 Periods Learning Objectives

- Develop conceptual skills of defining democracy.
- Understand how different historical processes and forces have promoted democracy.
- Develop a sophisticated defense of democracy against common prejudices.
- Develop a historical sense of the

|  | choice and nature of democracy in India. |
| :---: | :---: |
| 2. Constitutional Design: <br> - Democratic Constitution in South Africa <br> - Why do we need a Constitution? <br> - Making of the Indian Constitution <br> - Guiding Values of the Indian Constitution | - Understand the process of Constitution making. <br> - Develop respect for the Constitution and appreciation for Constitutional values. <br> - Recognize Constitution as a dynamic and living document. |
| 3. Electoral Politics: <br> - Why Elections? <br> - What is our System of Elections? <br> - What makes elections in India democratic? | - Understand representative democracy via competitive party politics. <br> - Familiarize with Indian electoral system. <br> - Reason out for the adoption of present Indian Electoral System. <br> - Develop an appreciation of citizen's increased participation in electoral politics. <br> - Recognize the significance of the Election Commission. |
| 4. Working of Institutions: <br> - How is the major policy decision taken? <br> - Parliament <br> - Political Executive <br> - Judiciary | - Get an overview of central governmental structures. <br> - Identify the role of Parliament and its procedures. <br> - Distinguish between political and permanent executive authorities and functions. <br> - Understand the parliamentary system of executive's accountability to the legislature. <br> - Understand the working of Indian Judiciary. |



- Why Food Security?
- Who are food insecure?
- Food Security in India
- What is Buffer Stock?
- What is the Public Distribution System?
- Current Status of Public Distribution System
- Appreciate and analyse the role of government in ensuring food supply.


## PROJECT WORK <br> CLASS IX (2019-20)

05 Periods
05 Marks

1. Every student has to compulsorily undertake one project on Disaster Management
2. Objectives: The main objectives of giving project work on Disaster Management to the students are to:
a. create awareness in them about different disasters, their consequences and management
b. prepare them in advance to face such situations
c. ensure their participation in disaster mitigation plans
d. enable them to create awareness and preparedness among the community.
3. The project work should also help in enhancing the Life Skills of the students.
4. If possible, various forms of art may be integrated in the project work.
5. In order to realize the expected objectives completely, it would be required of the Principals / teachers to muster support from various local authorities and organizations like the Disaster Management Authorities, Relief, Rehabilitation and the Disaster Management Departments of the States, Office of the District Magistrate/ Deputy Commissioners, Fire Service, Police, Civil Defense etc. in the area where the schools are located.
6. The distribution of marks over different aspects relating to Project Work is as follows:

| S. No. | Aspects | Marks |
| :---: | :--- | :---: |
| a | Content accuracy, originality and analysis | $\mathbf{2}$ |
| b | Presentation and creativity | $\mathbf{2}$ |
| c | Viva Voce | $\mathbf{1}$ |

7. The project carried out by the students should subsequently be shared among themselves through interactive sessions such as exhibitions, panel discussions, etc.
8. All documents pertaining to assessment under this activity should be meticulously maintained by the schools.
9. A Summary Report should be prepared highlighting:
a. objectives realized through individual work and group interactions;
b. calendar of activities;
c. innovative ideas generated in the process ;
d. list of questions asked in viva voce.
10. It is to be noted here by all the teachers and students that the projects and models prepared should be made from eco-friendly products without incurring too much expenditure.
11. The Project Report should be handwritten by the students themselves.
12. The record of the project work (internal assessment) should be kept for a period of three months for verification, if any.

## PRESCRIBED BOOKS:

1. India and the Contemporary World - I (History) - Published by NCERT
2. Contemporary India - I (Geography) - Published by NCERT
3. Democratic Politics - I Published by NCERT
4. Economics - Published by NCERT
5. Together, Towards a Safer India - Part II, a textbook on Disaster Management for Class IX - Published by CBSE

Note: Please procure latest reprinted edition (2019) of prescribed NCERT textbooks.

## SOCIAL SCIENCE (CODE NO. 087)

## QUESTION PAPER DESIGN CLASS IX (2019-20)

Time: 3 Hours
Max. Marks: 80

| Sr . <br> No. | Typology of Questions | Objecti ve Type (1 <br> mark) | $\begin{aligned} & \hline \text { SA } \\ & \text { (3 } \\ & \text { marks) } \end{aligned}$ | $\begin{aligned} & \hline \text { LA } \\ & \text { (5 } \\ & \text { marks) } \end{aligned}$ | Map Skill | Total Marks | Weight age \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. | 9 | 3 | 1 | - | 23 | 29\% |
| 2 | Understanding: <br> Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas | 4 | 2 | 2 | - | 20 | 25\% |
| 3 | Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way. | 3 | 1 | 2 | - | 16 | 20\% |
| 4 | Analysing and Evaluating: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations <br> Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. | 2 | 1 | 1 | - | 10 | 12\% |
| 5 | Creating: Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions. | 2 | 1 | - | - | 5 | 6.5\% |
| 6 | Map Skill |  |  |  | 3+3 | 6 | 7.6\% |
|  | Total | $1 \times 20=20$ | $3 \times 8=24$ | 5x6=30 | 6 | 80 | 100\% |

- Internal Assessment: 20 Marks

INTERNAL ASSESSMENT

|  | Marks | Description |
| :---: | :---: | :---: |
| Periodic Assessment | 10 Marks | Pen Paper Test 5 marks |
|  |  |  |
| Portfolio | 5 Marks | - Classwork <br> - Work done (Activities / Assignments) <br> - Reflections, Narrations, Journals, etc. <br> - Achievements of the student in the subject throughout the year <br> - Participation of the student in different activities like Heritage India Quiz |
| Subject Enrichment Activity | 5 Marks | - Project Work |

## LIST OF MAP ITEMS

CLASS IX (2019-20)

## SUBJECT - HISTORY

## Chapter-1: The French Revolution

Outline Political Map of France (For locating and labeling / Identification)

- Bordeaux
- Nantes
- Paris
- Marseilles


## Chapter-2: Socialism in Europe and the Russian Revolution

Outline Political Map of World (For locating and labeling / Identification)

- Major countries of First World War
(Central Powers and Allied Powers)
Central Powers - Germany, Austria-Hungary, Turkey (Ottoman Empire)
Allied Powers - France, England, Russia, U.S.A.


## Chapter-3: Nazism and Rise of Hitler

Outline Political Map of World (For locating and labeling / Identification)

- Major countries of Second World War

Axis Powers - Germany, Italy, Japan
Allied Powers - UK, France, Former USSR, USA

- Territories under German expansion (Nazi Power)

Austria, Poland, Czechoslovakia (only Slovakia shown in the map), Denmark, Lithuania, France, Belgium

SUBJECT - GEOGRAPHY (Outline Political Map of India)

## Chapter -1: India-Size and Location

- India-States with Capitals, Tropic of Cancer, Standard Meridian (Location and Labelling)


## Chapter -2: Physical Features of India

- Mountain Ranges: The Karakoram, The Zasker, The Shivalik, The Aravali, The Vindhya, The Satpura, Western \& Eastern Ghats
- Mountain Peaks - K2, Kanchan Junga, Anai Mudi
- Plateau - Deccan Plateau, Chotta Nagpur Plateau, Malwa Plateau
- Coastal Plains - Konkan, Malabar, Coromandal \& Northern Circar (Location and Labelling)


## Chapter -3: Drainage

- Rivers: (Identification only)
- The Himalayan River Systems-The Indus, The Ganges, and The Satluj
- The Peninsular rivers-The Narmada, The Tapi, The Kaveri, The Krishna, The Godavari, The Mahanadi
- Lakes: Wular, Pulicat, Sambhar, Chilika


## Chapter - 4: Climate

- Areas receiving rainfall less than 20 cm and over 400 cm (Identification only)


## Chapter - 5: Natural Vegetation and Wild Life

- Vegetation Type: Tropical Evergreen Forest, Tropical Deciduous Forest, Thorn Forest, Montane Forests and Mangrove- For identification only
- National Parks: Corbett, Kaziranga, Ranthambor, Shivpuri, Kanha, Simlipal \& Manas
- Bird Sanctuaries: Bharatpur and Ranganthitto
- Wild Life Sanctuaries: Sariska, Mudumalai, Rajaji, Dachigam (Location and Labelling)

Chapter - 6: Population (location and labelling)

- The state having highest and lowest density of population
- The state having highest and lowest sex ratio
- Largest and smallest state according to area


## COURSE STRUCTURE CLASS X (2019-20)

## Theory Paper

| Time: $\mathbf{3}$ Hrs. |  | Max. Marks: 80 |  |
| :---: | :--- | :---: | :---: |
| No. | Units | No. of Periods | Marks |
| I | India and the Contemporary World - II | 60 | 20 |
| II | Contemporary India - II | 55 | 20 |
| III | Democratic Politics - II | 50 | 20 |
| IV | Understanding Economic Development | 50 | 20 |
| Total |  |  |  |
| $\mathbf{2 1 5}$ | $\mathbf{8 0}$ |  |  |

## COURSE CONTENT

\section*{| Unit 1: India and the Contemporary Wo |
| :--- |
| Themes |
| Section 1: Events and Processes: |
| 1. The Rise of Nationalism in Europe: |}

- The French Revolution and the Idea of the Nation
- The Making of Nationalism in Europe
- The Age of Revolutions: 1830-1848
- The Making of Germany and Italy
- Visualizing the Nation
- Nationalism and Imperialism


## 2. Nationalism in India:

- The First World War, Khilafat and Non Cooperation
- Differing Strands within the Movement
- Towards Civil Disobedience
- The Sense of Collective Belonging


## Learning Objectives

- Enable the learners to identify and comprehend the forms in which nationalism developed along with the formation of nation states in Europe in the post-1830 period.
- Establish the relationship and bring out the difference between European nationalism and anticolonial nationalisms.
- Understand the way the idea of nationalism emerged and led to the formation of nation states in Europe and elsewhere.
- Recognize the characteristics of Indian nationalism through a case study of Non-Cooperation and Civil Disobedience Movement.
- Analyze the nature of the diverse social movements of the time.
- Familiarize with the writings and ideals of different political groups and individuals.
- Appreciate the ideas promoting
Section 2: Livelihoods, Economies and
Societies: Any one theme of the following:

3. The Making of a Global World:

- The Pre-modern world
- The Nineteenth Century (1815-1914)
- The Inter war Economy
- Rebuilding a World Economy: The Post-War Era


## 4. The Age of Industrialization:

- Before the Industrial Revolution
- Hand Labour and Steam Power
- Industrialization in the colonies
- Factories Come Up
- The Peculiarities of Industrial Growth
- Market for Goods

Section 3: Everyday Life, Culture and Politics:

## 5. Print Culture and the Modern World:

- The First Printed Books
- Print Comes to Europe
- The Print Revolution and its Impact
- The Reading Mania
- The Nineteenth Century
- India and the World of Print
- Religious Reform and Public Debates
- New Forms of Publication
- Print and Censorship

Pan Indian belongingness.

- Show that globalization has a long history and point to the shifts within the process.
- Analyze the implication of globalization for local economies.
- Discuss how globalization is experienced differently by different social groups.
- Familiarize with the Pro- toIndustrial phase and Early factory system.
- Familiarize with the process of industrialization and its impact on labour class.
- Enable them to understand industrialization in the colonies with reference to Textile industries.
- Identify the link between print culture and the circulation of ideas.
- Familiarize with pictures, cartoons, extracts from propaganda literature and newspaper debates on important events and issues in the past.
- Understand that forms of writing have a specific history, and that they reflect historical changes within society and shape the forces of change.

Unit 2: Contemporary India - II
55 Periods

## 1. Resources and Development:

- Types of Resources
- Development of Resources
- Resource Planning in India
- Land Resources
- Land Utilization
- Land Use Pattern in India
- Land Degradation and Conservation Measures
- Soil as a Resource
- Classification of Soils
- Soil Erosion and Soil Conservation


## 2. Forest and Wildlife

- Biodiversity or Biological Diversity
- Flora and Fauna in India
- Vanishing Forests
- Asiatic Cheetah: Where did they go?
- The Himalayan Yew in trouble
- Conservation of forest and wildlife in India
- Project Tiger
- Types and distribution of forests and wildlife resources
- Community and Conservation

Note: The chapter 'Forest and Wildlife' to be assessed in the Periodic Tests only and will not be evaluated in Board Examination.
3. Water Resources:

- Water Scarcity and The Need for Water Conservation and Management
- Multi-Purpose River Projects and Integrated Water Resources Management
- Rainwater Harvesting
- Understand the value of resources and the need for their judicious utilization and conservation.
- Understand the importance of forests and wild life in one environment as well as develop concept towards depletion of resources.
- Comprehend the importance of water as a resource as well as develop awareness towards its judicious use and conservation.


## Note: The chapter 'Water Resources' to be assessed in the Periodic Tests only and will not be evaluated in Board Examination.

## 4. Agriculture:

- Types of farming
- Cropping Pattern
- Major Crops
- Technological and Institutional Reforms
- Impact of Globalization on Agriculture


## 5. Minerals and Energy Resources

- What is a mineral?
- Mode of occurrence of Minerals
- Ferrons and Non-Ferrons Minerals
- Non-Metallic Minerals
- Rock Minerals
- Conservation of Minerals
- Energy Resources
- Conventional and NonConventional
- Conservation of Energy Resources


## 6. Manufacturing Industries:

- Importance of manufacturing
- Contribution of Industry to National Economy
- Industrial Location
- Classification of Industries
- Spatial distribution
- Industrial pollution and environmental
- Explain the importance of agriculture in national economy.
- Identify various types of farming and discuss the various farming methods; describe the spatial distribution of major crops as well as understand the relationship between rainfall regimes and cropping pattern.
- Explain various government policies for institutional as well as technological reforms since independence.
- Identify different types of minerals and energy resources and places of their availability
- Feel the need for their judicious utilization
- Bring out 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

| degradation |
| :--- |
| - Control of Environmental Degradation |
| 7. Life Lines of National Economy: |
| - Transport - Roadways, Railways, |
| Pipelines, Waterways, Airways |
| - $\quad$ Communication |
| - International Trade |
| - Tourism as a Trade |

Unit 3: Democratic Politics - II

| Themes |  |
| :--- | :--- |
| 1. Power Sharing: |  |

government towards sustainable development.

- Explain the importance of transport and communication in the ever-shrinking world.
- Understand the role of trade and tourism in the economic development of a country.
- Case Studies of Belgium and Sri Lanka
- Why power sharing is desirable?
- Forms of Power Sharing

2. Federalism:

- What is Federalism?
- What make India a Federal Country?
- How is Federalism practiced?
- Decentralization in India


## 3. Democracy and Diversity:

- Case Studies of Mexico
- Differences, similarities and divisions
- Politics of social divisions

Note: The chapter 'Democracy and Diversity' to be assessed in the Periodic Tests only and will not be evaluated in Board Examination.
4. Gender, Religion and Caste:

- Gender and Politics
- Religion, Communalism and Politics
- Caste and Politics

50 Periods

- Familiarize with the centrality of power sharing in a democracy.
- Understand the working of spatial and social power sharing mechanisms.
- Analyse federal provisions and institutions.
- Explain decentralization in rural and urban areas.
- Analyse the relationship between social cleavages and political competition with reference to Indian situation.

5. Popular Struggles and Movements:

- Popular Struggles in Nepal and Bolivia
- Mobilization and Organization
- Pressure Groups and Movements

Note: The chapter 'Popular Struggles and Movements' to be assessed in the Periodic Tests only and will not be evaluated in Board Examination.
6. Political Parties:

- Why do we need Political Parties?
- How many Parties should we have?
- National Political Parties
- State Parties
- Challenges to Political Parties
- How can Parties be reformed?


## 7. Outcomes of Democracy:

- How do we assess democracy's outcomes?
- Accountable, responsive and legitimate government
- Economic growth and development
- Reduction of inequality and poverty
- Accommodation of social diversity
- Dignity and freedom of the citizens


## 8. Challenges to Democracy:

- Thinking about challenges
- Thinking about Political Reforms
- Redefining democracy

Note: The chapter 'Challenges to Democracy' to be assessed in the Periodic
disabling effects of caste and ethnicity in politics.

- Develop a gender perspective on politics.
- Understand the vital role of people's struggle in the expansion of democracy.
- Analyse party systems in democracies.
- Introduction to major political parties, challenges faced by them and reforms in the country.
- Evaluate the functioning of democracies in comparison to alternative forms of governments.
- Understand the causes for continuation of democracy in India.
- Distinguish between sources of strengths and weaknesses of Indian democracy.
- Reflect on the different kinds of measures possible to deepen democracy.
- Promote an active and participatory citizenship.


## Tests only and will not be evaluated in Board Examination.

Unit 4: Understanding Economic Development
50 Periods

| Themes | Objectives |
| :---: | :---: |

## 1. Development:

- What Development Promises

Different people different goals

- Income and other goals
- National Development
- How to compare different countries or states?
- Income and other criteria
- Public Facilities
- Sustainability of development


## 2. Sectors of the Indian Economy:

- Sectors of Economic Activities
- Comparing the three sectors
- Primary, Secondary and Tertiary Sectors in India
- Division of sectors as organized and unorganized
- Sectors in terms of ownership: Public and Private Sectors


## 3. Money and Credit:

- Money as a medium of exchange
- Modern forms of money
- Loan activities of Banks
- Two different credit situations
- Terms of credit
- Formal sector credit in India
- Self Help Groups for the Poor

4. Globalization and the Indian Economy:

- Production across countries
- Interlinking production across countries
- Foreign Trade and integration of
- Familiarize with concepts of macroeconomics.
- Understand the rationale for overall human development in our country, which includes the rise of income, improvements in health and education rather than income.
- Understand the importance of quality of life and sustainable development.
- Identify major employment generating sectors.
- Reason out the government investment in different sectors of economy.
- Understand money as an economic concept.
- Understand the role of financial institutions from the point of view of day-to- day life.
- Explain the working of the Global Economic phenomenon.

| markets <br> - What is globalization? <br> - Factors that have enabled Globalisation <br> - World Trade Organisation <br> - Impact of Globalization on India <br> - The Struggle for a fair Globalisation <br> 5. Consumer Rights: <br> Note: Chapter 5 'Consumer Rights' to be done as Project Work. | - Gets familiarized with the rights and duties as a consumer; and legal measures available to protect from being exploited in markets. |
| :---: | :---: |

## PROJECT WORK <br> CLASS X (2019-20)

05 Periods
05 Marks

1. Every student has to compulsorily undertake any one project on the following topics:

Consumer Awareness
OR
Social Issues
OR
Sustainable Development
2. Objective: The overall objective of the project work is to help students gain an insight and pragmatic understanding of the theme and see all the Social Science disciplines from interdisciplinary perspective. It should also help in enhancing the Life Skills of the students.

Students are expected to apply the Social Science concepts that they have learnt over the years in order to prepare the project report.

If required, students may go out for collecting data and use different primary and secondary resources to prepare the project. If possible, various forms of art may be integrated in the project work.
3. The distribution of marks over different aspects relating to Project Work is as follows:

| S. No. | Aspects | Marks |
| :---: | :--- | :---: |
| a. | Content accuracy, originality and analysis | $\mathbf{2}$ |
| b. | Presentation and creativity | $\mathbf{2}$ |
| c. | Viva Voce | $\mathbf{1}$ |

4. The projects carried out by the students in different topics should subsequently be shared among themselves through interactive sessions such as exhibitions, panel discussions, etc.
5. All documents pertaining to assessment under this activity should be meticulously maintained by concerned schools.
6. A Summary Report should be prepared highlighting:

- objectives realized through individual work and group interactions;
- calendar of activities;
- innovative ideas generated in the process ;
- list of questions asked in viva voce.

7. It is to be noted here by all the teachers and students that the projects and models prepared should be made from eco-friendly products without incurring too much expenditure.
8. The Project Report should be handwritten by the students themselves.
9. Records pertaining to projects (internal assessment) of the students will be maintained for a period of three months from the date of declaration of result for verification at the discretion of Board. Subjudiced cases, if any or those involving RTI / Grievances may however be retained beyond three months.

## PRESCRIBED BOOKS:

1. India and the Contemporary World-II (History) - Published by NCERT
2. Contemporary India II (Geography) - Published by NCERT
3. Democratic Politics II (Political Science) - Published by NCERT
4. Understanding Economic Development - Published by NCERT
5. Together Towards a Safer India - Part III, a textbook on Disaster Management Published by CBSE

Note: Please procure latest reprinted edition (2019) of prescribed NCERT textbooks.

# SOCIAL SCIENCE (CODE NO. 087) QUESTION PAPER DESIGN CLASS X 

Time: 3 Hours
Max. Marks: 80

| $\begin{aligned} & \text { Sr. } \\ & \text { No. } \end{aligned}$ | Typology of Questions | Objecti ve Type (1 mark) | $\begin{aligned} & \hline \text { SA } \\ & \text { (3 } \\ & \text { marks) } \end{aligned}$ | LA (5 marks) | Map Skill | Total Marks | Weight age \% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Remembering: Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. | 9 | 3 | 1 | - | 23 | 29\% |
| 2 | Understanding: <br> Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas | 4 | 2 | 2 | - | 20 | 25\% |
| 3 | Applying: Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way. | 3 | 1 | 2 | - | 16 | 20\% |
| 4 | Analysing and Evaluating: Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations <br> Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. | 2 | 1 | 1 | - | 10 | 12\% |
| 5 | Creating: Compile <br> information together in a  <br> different way by combining  <br> elements in a new pattern or  <br> proposing  <br> solutions.  <br>   <br> alternative  | 2 | 1 |  | - | 5 | 6.5\% |
| 6 | Map Skill |  |  |  | 3+3 | 6 | 7.6\% |
|  | Total | $1 \times 20=20$ | $3 \times 8=24$ | $5 \times 6=30$ | 6 | 80 | 100\% |

- Internal Assessment: 20 Marks

INTERNAL ASSESSMENT


## LIST OF MAP ITEMS

CLASS X (2019-20)
A. HISTORY (Outline Political Map of India)

Chapter - 3 Nationalism in India - (1918 - 1930) for locating and labelling / Identification

1. Indian National Congress Sessions:
a. Calcutta (Sep. 1920)
b. Nagpur (Dec. 1920)
c. Madras (1927)
2. Important Centres of Indian National Movement
a. Champaran (Bihar) - Movement of Indigo Planters
b. Kheda (Gujrat) - Peasant Satyagrah
c. Ahmedabad (Gujarat) - Cotton Mill Workers Satyagraha
d. Amritsar (Punjab) - Jallianwala Bagh Incident
e. Chauri Chaura (U.P.) - Calling off the Non-Cooperation Movement
f. Dandi (Gujarat) - Civil Disobedience Movement
B. GEOGRAPHY (Outline Political Map of India)

Chapter 1: Resources and Development (Identification only)
a. Major soil Types

Chapter 3: Water Resources (Locating and Labelling)

## Dams:

a. Salal
e. Sardar Sarovar
b. Bhakra Nangal
f. Hirakud
c. Tehri
g. Nagarjuna Sagar
d. Rana Pratap Sagar
h. Tungabhadra

Note: The chapter 'Water Resources' to be assessed in the Periodic Tests only and will not be evaluated in Board Examination.

Chapter 4: Agriculture (Identification only)
a. Major areas of Rice and Wheat
b. Largest / Major producer states of Sugarcane, Tea, Coffee, Rubber, Cotton and Jute

## Chapter 5: Minerals and Energy Resources

## Minerals (Identification only)

a. Iron Ore mines

- Mayurbhanj
- Durg
- Bellary
- Kudremukh
- Bailadila
b. Coal Mines
- Raniganj
- Bokaro
c. Oil Fields
- Digboi
- Naharkatia
- Mumbai High
- Talcher
- Neyveli
- Bassien
- Kalol
- Ankaleshwar


## Power Plants

(Locating and Labelling only)

## a. Thermal

- Namrup
- Ramagundam
- Singrauli
b. Nuclear
- Narora
- Tarapur
- Kakrapara
- Kalpakkam

Chapter 6: Manufacturing Industries (Locating and Labelling Only)

## Cotton Textile Industries:

a. Mumbai
d. Kanpur
b. Indore
e. Coimbatore
c. Surat

Iron and Steel Plants:
a. Durgapur
d. Bhilai
b. Bokaro
e. Vijaynagar
c. Jamshedpur
f. Salem

## Software Technology Parks:

a. Noida
e. Hyderabad
b. Gandhinagar
f. Bengaluru
c. Mumbai
g. Chennai
d. Pune
h. Thiruvananthapuram

## Chapter 7: Lifelines of National Economy

Major Ports: (Locating and Labelling)
a. Kandla
b. Mumbai
c. Marmagao
d. New Mangalore
e. Kochi

## International Airports:

a. Amritsar (Raja Sansi) d. Chennai (Meenam Bakkam)
b. Delhi (Indira Gandhi
International)
c. Mumbai (Chhatrapati Shivaji)
f. Tuticorin
g. Chennai
h. Vishakhapatnam
i. Paradip
j. Haldia
e. Kolkata (Netaji Subhash Chandra Bose)
f. Hyderabad (Rajiv Gandhi)

Note: Items of Locating and Labelling may also be given for Identification.

## COMPUTER APPLICATIONS

## CLASS IX (Code 165)

(2019-20)

## Learning Outcomes

1. Ability to familiarise with basics of computers.
2. Ability to navigate the file system.
3. Ability to create and edit documents, spread sheets, and presentations.
4. Ability to perform basic data manipulation using spread sheets and use Indian languages in documents.
5. Ability to send and receive emails, follow email etiquette, and communicate over the internet.
6. Ability to create and upload videos.
7. Ability to safely and correctly use websites, social networks, chat sites, and email.

## Distribution of Marks and Periods

| Unit | Unit Name | Marks | Periods |  |
| :--- | :--- | :---: | :---: | :---: |
| No. |  |  | Theory | Practical |
| 1. | Basics of Information Technology | 5 | 10 | 05 |
| 2. | Cyber safety | 10 | 05 | 05 |
| 3. | Office Tools | 5 | 05 | 45 |
| 4. | Scratch/Python | 10 | 35 | 70 |
| 5. | Lab Exercises | 70 | - | - |
|  | Total | 100 | 55 | 125 |

## Unit 1: Basics of Information Technology

- Computer Systems: characteristics of a computer, components of a computer system - CPU, memory, storage devices and I/O devices
- Memory: primary (RAM and ROM) and secondary memory
- Storage devices: hard disk, CD ROM, DVD, pen/flash drive, memory stick
- I/O devices: keyboard, mouse, monitor, printer, scanner, web camera
- Types of software: system software (operating system, device drivers), application software including mobile applications
- Computer networking: Type of networks: PAN, LAN, MAN, WAN, wired/wireless communication, Wi-Fi, Bluetooth, cloud computers (private/public)
- Multimedia: images, audio, video, animation


## Unit 2: Cyber-safety

- Safely browsing the web and using social networks: identity protection, proper usage of passwords, privacy, confidentiality of information, cyber stalking, reporting cybercrimes
- Safely accessing websites: viruses and malware


## Unit 3: Office tools

- Introduction to a word processor: create and save a document.
- Edit and format text: text style (B, I, U), font type, font size, text colour, alignment of text. Format paragraphs with line and/or paragraph spacing. Add headers and footers, numbering pages, grammar and spell check utilities, subscript and superscript, insert symbols, use print preview, and print a document.
- Insert pictures, change the page setting, add bullets and numbering, borders and shading, and insert tables - insert/delete rows and columns, merge and split cells.
- Use auto-format, track changes, review comments, use of drawing tools, shapes and mathematical symbols.
- Presentation tool: understand the concept of slide shows, basic elements of a slide, different types of slide layouts, create and save a presentation, and learn about the different views of a slide set - normal view, slide sorter view and hand-outs.
- Edit and format a slide: add titles, subtitles, text, background, and watermark, headers and footers, and slide numbers.
- Insert pictures from files, create animations, add sound effects, and rehearse timings.
- Spreadsheets: concept of a worksheet and a workbook, create and save a worksheet.
- Working with a spreadsheet: enter numbers, text, date/time, series using auto fill; edit and format a worksheet including changing the colour, size, font, alignment of text; insert and delete cells, rows and columns. Enter a formula using the operators (+,-,,,$/$ ), refer to cells, and print a worksheet.
- Use simple statistical functions: SUM (), AVERAGE (), MAX (), MIN (), IF () (without compound statements); embed charts of various types: line, pie, scatter, bar and area in a worksheet.


## Unit 4: Scratch or Python

## Alternative 1: Educational programming language - Scratch

- Introduction to Scratch.
- Drag and drop commands, creating simple scripts, repeating blocks of commands.
- Discuss $x-y$ plane, create scripts to move the cat (Scratch mascot).
- Create a script to draw diagrams using the pen feature.


## Alternative 2: Python - (provided as an option to children with special needs)

- Introduction to Python
- A simple "Hello World" program
- Running a Python program
- The notion of data-types and variables: integer, float, string
- Arithmetic operations: +, -, *, /


## 5. Lab Exercises

- Basic I/O devices: use the mouse and keyboard, draw a figure.
- Working with the operating system: Navigation of the file system using a mouse and keyboard.
- Word processing: create a text document; create a letter, report, and greeting card.
- Create a text document with figures in it. It should describe a concept taught in another course.
- Discuss the following in a text document about the basic organisation of a computer: CPU, memory, input/output devices, hard disk.
- Create a text document in an Indian language other than English.
- Create a presentation.
- Create a presentation with animation.
- Include existing images/ pictures in a presentation.
- Animate pictures and text with sound effects in a presentation
- Create a simple spreadsheet and perform the following operations: min, max, sum, and average.
- Create different types of charts using a spreadsheet: line, bar, area and pie.
- Write basic Scratch/Python programs.


## Breakup of marks for the Practicals :

| S.No. | Unit Name | Marks |
| :---: | :---: | :---: |
| 1. | Lab Test (30 marks) |  |
|  | Proficiency with the OS | 3 |
|  | Word processing | 5 |
|  | Handling spreadsheets | 7 |
|  | Creating presentations | 7 |
|  | Writing basic Python/Scratch programs | 8 |
| 2. | Report File + viva (25 marks) |  |
|  | Report file: <br> - 4 documents each with a word processor, spreadsheet, and presentation tool <br> - At least 4 programs on Scratch/Python | 20 |
|  | Viva voce (based on the report file) | 5 |
| 3. | Project (that uses most of the concepts that have been learnt) | 15 |
|  | Total Marks | 70 |

# Computer Applications 

## CLASS X (Code 165)

(2019-20)

## Learning Outcomes

1. Ability to create a simple website
2. Ability to embed images, audio and video in an HTML page
3. Ability to use style sheets to beautify the web pages.
4. Ability to write iterative programs with Scratch/Python.
5. Ability to Interface a web site with a web server and record the details of a user's request.
6. Ability to follow basic cyber ethics
7. Ability to familiarize with network concepts.

## Distribution of Marks and Periods

| Unit <br> No. | Unit Name | Marks | Periods |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  |  | Theory | Practical |
| 1. | Networking | 5 | 05 | 05 |
| 2. | HTML | 12 | 30 | 50 |
| 3. | Cyber ethics | 5 | 05 | 10 |
| 4. | Scratch/Python Theory | 8 | 15 | 60 |
| 5. | Practicals | 70 | - | - |
|  | Total | 100 | 55 | 125 |

## Unit 1: Networking

- Internet: World Wide Web, web servers, web clients, web sites, web pages, web browsers, blogs, news groups, HTML, web address, e-mail address, downloading and uploading files from a remote site. Internet protocols: TCP/IP, SMTP, POP3, HTTP, HTTPS. Remote login and file transfer protocols: SSH, SFTP, FTP, SCP, TELNET, SMTP, TCP/IP.
- Services available on the internet: information retrieval, locating sites using search engines and finding people on the net;
- Web services: chat, email, video conferencing, e-Learning, e-Banking, eShopping, e-Reservation, e-Governance, e-Groups, social networking.
- Mobile technologies: SMS, MMS, 3G, 4G.


## Unit 2: HTML

- Introduction to web page designing using HTML: create and save an HTML document, access a web page using a web browser.
- HTML tags: html, head, title, body, (attributes: text, background, bgcolor, link, vlink, alink), br (break), hr(horizontal rule), inserting comments, h1..h6 (heading), $p$ (paragraph), $b$ (bold), $i$ (italics), $u$ (underline), ul (unordered list), ol (ordered list), and li (list item). Description lists: dl, dt and dd. Attributes of ol (start, type), ul (type).
- Font tags (attributes: face, size, color).
- Insert images: img (attributes: src, width, height, alt), sup (super script), sub (subscript).
- HTML Forms: Textbox, radio buttons, checkbox, password, list, combobox.
- Embed audio and video in a HTML page.
- Create a table using the tags: table, tr, th, td, rowspan, colspan
- Links: significance of linking, anchor element (attributes: href, mailto), targets.
- Cascading style sheets: colour, background-colour, border-style, margin, height, width, outline, font (family, style, size), align, float.


## Unit 3: Cyber ethics

- Netiquettes.
- Software licenses and the open source software movement.
- Intellectual property rights, plagiarism and digital property rights.
- Freedom of information and the digital divide.
- E-commerce: Privacy, fraud, secure data transmission.


## Unit 4: Scratch or Python (Theory and Practical)

## Alternative 1: Scratch

- Revision of the basics of Scratch
- Sprite, tempo, variables, and events
- Coordinates and conditionals
- Drawing with iteration
- Update variables repeatedly, iterative development, ask and answer blocks
- Create games, animated images, stories and songs


## Alternative 2: Python (only for children with special needs)

- Revision of Python basics
- Conditionals: if, if-else statements
- Loops: for, while (e.g., sum of first 10 natural numbers)
- Practice simple programs


## 5. Lab Exercises

- Create static web pages.
- Use style sheets to enforce a format in an HTML page (CSS).
- Embed pictures, audio and videos in an HTML page.
- Add tables and frames in an HTML page.
- Decorate web pages using graphical elements.
- Create a website using several webpages. Students may use any open source or proprietary tool.
- Work with HTML forms: text box, radio buttons, checkbox, password, list, combo box.
- Write a blog using HTML pages discussing viruses, malware, spam and antiviruses
- Create a web page discussing plagiarism. List some reported cases of plagiarism and the consequent punishment meted out. Explain the nature of the punishment in different countries as per their IP laws.
- Create simple stories with Scratch (involving at least two objects/characters) and iteration OR write programs for finding the sum/product of first $n$ natural numbers using Python


## Breakup of marks for the practicals:

| S.No. | Unit Name | Marks |
| :---: | :---: | :---: |
| 1. | Lab Test (30 marks) |  |
|  | HTML (design one web page based on a diagram) | 15 |
|  | Scratch or Python (write one program) | 15 |
| 2. | Report File + viva (25 marks) |  |
|  | Report file: At least 10 HTML pages, and at least 5 Scratch/Python programs. | 20 |
|  | Viva voce (based on the report file) | 5 |
| 3. | Project (that uses most of the concepts that have been learnt) | 15 |

