

## BAL BHARATI PUBLIC SCHOOL, PITAMPURA, DELHI – 110034 CLASS X

# SESSION 2020-21

# REVISED COMPLETE SYLLABUS

SYLLABUS
SECTION A: READING
COMPREHENSION PASSAGES:  • Factual passage • Discursive passage
(MCQs in both the passages have been included)
(Testing of Conceptual, understanding, decoding. Analysing, inferring, interpreting and vocabulary)
SECTION B : WRITING SKILLS AND GRAMMAR
<ul> <li>Formal Letter Writing on any given situation</li> <li>Analytical Paragraph Writing based on maps/ charts /reports /line graphs</li> <li>Editing or Omission</li> <li>Gap filling passage</li> <li>Dialogue Writing/Reporting a dialogue on given cues</li> </ul>
(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.)
<ul> <li>Tenses</li> <li>Modals</li> <li>Subject-Verb concord</li> <li>Reporting- Commands, requests, statements and questions</li> <li>Determiners</li> </ul>
SECTION C : LITERATURE
<u>Literature Reader - FIRST FLIGHT</u>
(PROSE LESSONS)
1.A LETTER TO GOD 2.NELSON MANDELA: LONG WALK TO FREEDOM 3.TWO STORIES ABOUT FLYING  • His First Flight • Black Aeroplane 4.FROM THE DIARY OF ANNE FRANK 5.THE HUNDRED DRESSES I 6.THE HUNDRED DRESSES II 7.GLIMPSES OF INDIA • A Baker from Goa • Coorg • Tea from Assam

9.THE SERMON AT BENARES 10.THE PROPOSAL **POETRY** 1, DUST OF SNOW 2.FIRE AND ICE 3.A TIGER IN A ZOO 4.THE BALL POEM 5.AMANDA 6.ANIMALS 7.THE TALE OF CUSTARD THE DRAGON SUPPLEMENTARY READER- FOOTPRINTS WITHOUT FEET 1.A TRIUMPH OF SURGERY 2.THE THIEF'S STORY 3.FOOTPRINTS WITHOUT FEET 4.THE MAKING OF A SCIENTIST 5. THE NECKLACE 6.THE HACK DRIVER 7.BHOLI (Recalling, reasoning, appreciating, applying, literary conventions extrapolating, illustrating and justifying etc. Extracting relevant information, identifying the central theme and sub-themes, understanding the writer's message and writing fluently. **HINDI** 1. अपठित गद्यांश (चिंतन क्षमता एवं अभिव्यक्ति कौशल पर बहुविकल्पात्मक प्रश्न पूछे जाएंगे )चार अपठित गद्यांश में से कोई दो अपठित गद्यांश करने होंगे। व्याकरण: पाठ्य पुस्तक में दिए गए भाषा -अध्ययन के आधार पर बहुविकल्पात्मक प्रश्न \*पद बंध \*रचना के आधार पर वाक्य रूपांतरण 2. \*समास \*मुहावरे पाठ्यपुस्तक स्पर्श -2 पद्य- खंड कबीर - साखी 3 मीरा पद-मैथिलीशरण गुप्त -मनुष्यता सुमित्रानंदन पंत -पर्वत प्रदेश में पावस कैफ़ी आजमी -कर चले हम फ़िदा

गद्य -खंड प्रेमचंद -बडे भाई साहब लीलाधर मंडलोई -तताँरा - वामीरो कथा निदा फ़ाज़ली -अब कहाँ दूसरे के दुख में दुखी होने वाले रवींद्र केलेकर -झेन की देन हबीब तनवीर- कारतूस (एकांकी) पुरक पाठ्यपुस्तक संचयन भाग 2 हरिहर काका सपनों के से दिन टोपी शुक्ला लेखन -\*संकेत बिंदुओं पर आधारित समसामयिक एवं व्यवहारिक जीवन से जुड़े हुए किसी एक विषय पर अनच्छेद \*औपचारिक- पत्र \*सूचना लेखन \*विज्ञापन \* लघ कथा लेखन **MATHS** 1.REAL NUMBER Fundamental Theorem of Arithmetic Proofs of irrationality of  $\sqrt{2}$ ,  $\sqrt{3}$   $\sqrt{5}$ . • Decimal representation of rational numbers in terms of terminating/nonterminating recurring decimals. 2. POLYNOMIALS Zeros of a polynomial. Relationship between zeros and coefficients of quadratic polynomials. **3.PAIR OF LINEAR EQUATIONS IN TWO VARIABLES** • 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. Simple situational problems. Simple problems on equations reducible to linear equations. **4.QUADRATIC EQUATIONS** Standard form of a quadratic equation  $ax^2 + bx + c = 0$ ,  $(a \ne 0)$ . • Solutions of quadratic equations (only real roots) by factorization, and by using quadratic formula. Relationship between discriminant and nature of roots. 5.ARITHMETIC PROGRESSIONS Motivation for studying Arithmetic Progression Derivation of the n<sup>th</sup> term and sum of the first n terms of A.P. 6.TRIANGLES

Definitions, examples, counter examples of similar triangles.

- (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.
- (Motivate) If a line divides two sides of a triangle in the same ratio, the line is parallel to the third side.
- (Motivate)If in two triangles, the corresponding angles are equal, their corresponding sides are proportional and the triangles are similar.
- (Motivate)If the corresponding sides of two triangles are proportional, their corresponding angles are equal and the two triangles are similar.
- (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.
- (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.
- (Prove) In a right triangle, the square on the hypotenuse is equal to the sum of the squares on the other two sides.

### 7. COORDINATE GEOMETRY

- Concepts of coordinate geometry, graphs of linear equations.
- Distance formula.
- Section formula (internal division).

#### 8 INTRODUCTION TO TRIGONOMETRY

- Trigonometric ratios of an acute angle of a right-angled triangle.
- Proof of their existence (well defined).
- Values of the trigonometric ratios of 30°, 45° and 60°.
- Relationships between the ratios.
- TRIGONOMETRIC IDENTITIES

(Proof and applications of the identity  $sin^2A + cos^2A = 1$ . Only simple identities to be given.)

## 9. HEIGHTS AND DISTANCES:

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

#### 10. CIRCLES

- Tangent to a circle at the point of contact.
- (Prove) The tangent at any point of a circle is perpendicular to the radius through the point of contact.
- (Prove) The lengths of tangents drawn from an external point to a circle are equal.

#### 11. CONSTRUCTIONS

- Division of a line segment in a given ratio (internally)
- Tangents to a circle from a point outside it.

#### 12. AREAS RELATED TO CIRCLES

- 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° and 90° only.
- Plane figures involving triangles, simple quadrilaterals and circle should be taken.

#### 13. SURFACE AREAS AND VOLUMES

- Surface areas and volumes of combinations of any two of the following: cubes, cuboids, spheres, hemispheres and right circular cylinders/cones.
- 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).

#### 14.STATISTICS

 Mean( using direct method and assumed mean method), median and mode of grouped data

## 15. Probability

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

## SCIENCE PHYSICS:

Theme: Natural Phenomena Unit III: Natural Phenomena

## **Light: -Reflection and refraction**

- 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.

## Human eye and the colourful world

- Refraction of light through a prism,
- dispersion of light,
- scattering of light,
- applications in daily life.

Theme: How Things Work Unit IV: Effects of Current

#### **Electricity**

- 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.

#### LIST OF EXPERIMENTS FOR PRACTICALS

1. Studying the dependence of potential difference (V) across a resistor on the current (I) passing

through it and determining its resistance. Also plotting a graph between V and I.

2. Determination of the focal length of (i) Concave mirror and (ii) Convex lens by obtaining the

image of a distant object.

3. 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.

4. Tracing the path of the rays of light through a glass prism.

#### **CHEMISTRY**

- 1. Chemical reactions and equations
- Chemical equation
- Balanced chemical equation
- Implication of a balanced chemical equation
- Types of chemical reactions: Combination, decomposition, displacement, double displacement, precipitation, neutralization, oxidation and reduction.

#### 2. Acids, bases and salts

- Their definitions in terms of furnishing of H+ and 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

#### 3. Metals and nonmetals

- Properties of metals and non-metals
- Reactivity series
- Formation and properties of ionic compounds.

#### 4. Carbon and its compounds

- Covalent bonding in carbon compounds
- Versatile nature of carbon
- Homologous series.

## 5. 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.

## **List of Experiments for Practicals**

1. Studying the properties of acids and bases (HCl & NaOH) by their reaction with:

#### (Unit - I

- (a) Litmus solution (Blue/Red)
- (b) Zinc metal
- (c) Solid sodium carbonate
- 2. Performing and observing the following reactions and classifying them into: (Unit -
- A. Combination reaction
- B. Decomposition reaction
- C. Displacement reaction
- D. Double displacement reaction(i) Action of water on quick lime
  - (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 Zn, Fe, Cu and Al metals on the following salt solutions:

## (Unit - I)

- (i) ZnSO<sub>4</sub> (aq)
- (ii) FeSO<sub>4</sub> (aq)
- (iii) CuSO<sub>4</sub> (aq)
- (iv)  $Al_2(SO_4)_3$  (aq)

Arranging Zn, Fe, Cu and Al (metals) in the decreasing order of reactivity based on the above result.

## **BIOLOGY**

Theme: The World of the Living

## **Unit II: World of Living**

- 1. Life processes:
- 'Living Being'.
- Basic concepts of nutrition, respiration, transport and excretion in plants and animals.

#### 2. 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.

#### 3. Heredity:

- Heredity; Mendel's contribution- Laws for inheritance of traits
- Sex determination: brief introduction

**Theme: Natural Resources** 

**Unit V: Natural Resources** 

#### 4. Our environment

- Eco-system
- Environmental problems
- Ozone depletion
- Waste production and their solutions.
- Biodegradable and non-biodegradable substances.

## **List of Experiments for Practicals:-**

- Experimentally show that carbon dioxide is given out during respiration. (Unit-II)
- 2. Studying (a) binary fission in Amoeba, and (b) budding in yeast and Hydra with the help of prepared slides. (Unit-II)

## **ONLY FOR INTERNAL ASSESSMENT:-**

Note: Learners are assigned to read the below listed part of Unit V. They can be encouraged to prepare a brief write up on any one concept of this Unit in their Portfolio. This may be an assessment for Internal Assessment and credit may be given (Periodic assessment/Portfolio). This portion of the Unit is NOT to be assessed in the year-end examination:-

## Management of natural resources:

- Conservation and judicious use of natural resources.
- Forest and wildlife.
- 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.

# SOCIAL SC.

## **GEOGRAPHY**

#### 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
- Understand the value of resources and the need for their judicious utilization and conservation.
- Classification of Soils
- Soil Erosion and Soil Conservation

#### 3.Water Resource

Note: The theoretical aspect of this chapter will not be assessed in Periodic Tests and Board Examination. Only Map Items as given in the Map List from this chapter will 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

Note: The theoretical aspect of this chapter will not be assessed in Periodic Tests and Board Examination. Only Map items as given in map list from this chapter will be evaluated in Board Examination.

#### 6. Manufacturing Industries

- Importance of manufacturing
- Contribution of Industry to National Economy
- Industrial Location
- Classification of Industries
- Spatial distribution
- Industrial pollution and environmental degradation
- Control of Environmental Degradation

## 7. Life Lines of National Economy

- Transport Roadways, Railways, Pipelines, Waterways, Airways
- Communication
- International Trade
- Tourism as a Trade

## LIST OF MAP ITEMS FOR CLASS 10 (2020-21)

A. GEOGRAPHY (Outline Political Map of India)

**Resources and Development** (Identification only)

a. Major soil Types

## **Water Resources** (Locating and Labelling) Dams:

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

**<u>Note</u>**: Only map items of this chapter as listed above will be evaluated in Board Examination.

#### **Agriculture** (Identification only)

- a. Major areas of Rice and Wheat
- b. Largest / Major producer states of Sugarcane, Tea, Coffee, Rubber, Cotton and Jute

## Minerals and Energy Resources

Power Plants

(Locating and Labelling only) a. Thermal

- Namrup
- Singrauli
- b. Nuclear Ramagundam

- Narora
- Kakrapara
   Tarapur
- Kalpakkam

**Note**: Only Map Items of this chapter as listed above will be evaluated in Board Examination.

## **Manufacturing Industries** (Locating and Labelling Only)

Cotton Textile Industries:

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

#### 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

## <u>Lifelines of National Economy</u> (Locating and Labelling)

## Major Ports:

- a. Kandla f. Tuticorin
- b. Mumbai g. Chennai
- c. Marmagao h. Vishakhapatnam
- d. New Mangalore i. Paradip
- e. Kochi j. Haldia

#### International Airports:

- a. Amritsar (Raja Sansi) e. Kolkata (Netaji Subhash Chandra
- b. Delhi (Indira Gandhi International) Bose)
- c. Mumbai (Chhatrapati Shivaji) f. Hyderabad (Rajiv Gandhi)
- d. Chennai (Meenam Bakkam)

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

#### **ECONOMICS**

#### 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 situation
- 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 markets
- What is globalization?
- Factors that have enabled Globalisation
- World Trade Organisation
- Impact of Globalization on India
- The Struggle for a fair Globalization

#### **HISTORY**

### 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

#### 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

NOTE: (This chapter would be assessed in the Periodic Tests only and will not be evaluated in Board Examination.)

# LIST OF MAP ITEMS CLASS X (2020-21)

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 (Gujarat) Peasant Satyagrah
- c. Ahmedabad (Gujarat) Cotton Mill Workers Satyagraha
- d. Amritsar (Punjab) Jallianwala Bagh Incident
- e. Chauri Chaura (U.P.) 1922- Calling off the Non-Cooperation Movement
- f. Dandi (Gujarat) Civil Disobedience Movement

#### POLITICAL SCIENCE

## 1.Power Sharing

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

#### 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

#### **FRENCH**

A) Reading Section:

\*One unseen prose passage (factual/descriptive) (150-200 words)

B) Writing Section:

\*One long composition (Informal letter) based on the main themes given in lessons :-1 ,2,3,4,7,8 (80 words)

\*Two short compositions: message, re-arranging a dialogue in logical sequence, completing a text with the help of clues provided. (30-35 words)

C) Grammar Section:

Verbs (All tenses done in class 9, futur antérieur & plus-que-parfait.), pronom relatif composé, personal pronouns, trouvez la question, discours direct et indirect, négatifs, possessifs (adjectifs et pronoms)

(Note: Personal pronouns will continue to be tested as the topic is done in Class 9)

D) Culture and Civilization

Question based on text book:

- a) Short answer questions
- b) MCQ (True or False / Match the following/ Fill in the Blanks)
- L.1 Retrouvons nos amis
- L.2 Après le bac
  - L.3 Chercher du travail
  - L.4 Le plaisir de lire

	. L.7 – En pleine forme L.8 –L'environnement
GERMAN	<ul> <li>Part A- MCQ 40 marks</li> <li>Part B- Descriptive type- 40 marks</li> <li>Section A Reading (Two unseen passages)</li> <li>Section B Writing 1. Email writing 30 to 40 words.  2. Dialogue writing.</li> <li>Section C Grammar Past tense Adjective endings Prepositions Conjunctions Comparativ/ superlativ</li> <li>Section D (Textbook) Lektion6 -Magst du grüne Bohnen? Lektion7- Die App, die den Dieb findet. Lektion8 Einfach Sprache lernen</li> <li>Completing a seen passage with the given vocabulary.</li> <li>Comprehension ( seen)</li> </ul>
SANSKRI	<ul> <li>अपिठत गद्यांश</li> <li>चित्र वर्णनम्</li> <li>पत्र पूर्ति</li> <li>संस्कृत में अनुवाद</li> <li>सिधळंजन(जश्त्व,प्रथमवर्णस्य पंचमवर्णे परिवर्तन),विसर्ग(उत्व,विसर्गस्य स्थाने स्,ष्,श्)</li> <li>समास_तत्पुरुष , अव्ययीभाव, द्वंद्व</li> <li>प्रत्यय_मतुप् ,त्व, टाप्</li> <li>वाच्य परिवर्तन</li> <li>समय</li> <li>अव्यय</li> <li>अशुद्धि संशोधनम्</li> <li>पाठ्य पुस्तक_</li> <li>श्विपर्यावरणम्</li> <li>बुद्धिर्बलवती यस्य</li> <li>जननी तुल्यवत्सला</li> <li>सुभाषितानि</li> <li>सौहार्द प्रकृते:शोभा</li> <li>विचित्र:साक्षी</li> </ul>

सूक्तय