



BAL BHARATI PUBLIC SCHOOL, PITAMPURA, DELHI - 110034

ANNUAL EXAMINATION SYLLABUS

CLASS:XI (2022-23)

| Subject | Syllabus |
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| ENGLISH | <ul style="list-style-type: none">• Comprehension Passage• Letter to the Editor• Letter of Job Application• Notices• Invitations and Replies• Article• The Portrait of a Lady• We are not Afraid• Childhood• The Voice of the Rain• A Photograph• The Summer of the Beautiful White Horse• Birth• The Address• Mother's Day• Bubble Gum Syndrome• Leisure Gap• What People Like Us Think Of People Like Them |
| MATHEMATICS | <ul style="list-style-type: none">• Chapter 1 - Sets• Chapter 2 - Relations and Functions• Chapter 3 - Trigonometric Functions• Chapter 6 - Linear Inequalities• Chapter 7 : Permutations and Combinations• Chapter 9 - Sequences and Series• Chapter 10 : Straight Lines• Chapter 11 : Conic Sections• Chapter 12 : Introduction to 3 D Geometry• Chapter 13 : Limits and Derivatives• Chapter 15 : Statistics• Chapter 16 : Probability |
| PHYSICS | Physical World and Measurement: Units of measurement; systems of units; SI units, fundamental and derived units. significant figures. Dimensions of physical quantities, dimensional analysis and its applications - Checking the accuracy of an equation, finding |

dimensions of constants, conversion from one system of units to another, deriving a formula.

Motion in a straight line: Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and non- uniform motion, and instantaneous velocity, uniformly accelerated motion, velocity - time and position-time graphs.

Vectors: Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors, Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors.

Motion in a Plane: Horizontal projectile, oblique projectile, uniform circular motion.

Laws of Motion: Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, methods to reduce friction, friction is a necessary evil, Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road)

Work Energy Power: Work done by a constant force and a variable force; kinetic energy, work -energy theorem, power. Notion of potential energy, potential energy of a spring, conservative forces: non- conservative forces, motion in a vertical circle; elastic collisions in one and two dimensions, inelastic collisions in one dimensions

Motion of System of Particles and Rigid Body: Centre of mass of a two-particle system, Motion of centre of mass and conservation of momentum and Centre of mass motion. Centre of mass of a rigid body; Knowledge of centre of mass of uniform bodies, Moment of a force - torque, angular momentum, law of conservation of angular momentum and its applications. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation).

Gravitation: Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with

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| | <p>altitude and depth. Gravitational potential energy and gravitational potential, escape velocity, orbital velocity of a satellite, energy of a satellite in an orbit</p> <p>Thermal Properties of matter: Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation,</p> <p>Oscillations</p> <p>Periodic motion - time period, frequency, displacement as a function of time,</p> <p>Simple harmonic motion (S.H.M) and its equations of motion; phase; oscillations of a loaded spring- restoring force and force constant; displacement, velocity acceleration and energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for its time period.</p> <p>Waves</p> <p>Wave motion: Transverse and longitudinal waves, speed of travelling waves in various media, speed of sound in various media, factors affecting speed of sound waves, equation of a plane progressive wave in one dimension (no derivation)</p> |
| CHEMISTRY | <ul style="list-style-type: none"> ● CH1- Some Basic Concepts of Chemistry ● CH2- Structure of Atom ● CH3- Classification of Elements and Periodicity in Properties ● CH 4- Chemical Bonding and Molecular Structure ● CH-8 Redox Reactions ● CH-12 Organic Chemistry: Some basic Principles and Techniques ● CH-13 Hydrocarbons |
| COMPUTER SCIENCE | <ul style="list-style-type: none"> ● Chapter 2 - Encoding Schemes and Number System ● Chapter 4 - Introduction to Problem Solving (Flowchart and Algorithms) ● Chapter 5 - Getting Started with Python ● Chapter 6 - Flow of Control ● Chapter 7 : Functions ● Chapter 8 - Strings ● Chapter 9 : Lists ● Chapter 10 : Tuples and Dictionaries <p>Above chapters and topics are from the NCERT book</p> <ul style="list-style-type: none"> ● SQL basics(as per the notes uploaded in the classroom) |

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| BIOLOGY | <ul style="list-style-type: none"> • Chapter-1: The Living World • Chapter-2: Biological Classification • Chapter-3: Plant Kingdom • Chapter-4: Animal Kingdom • Chapter-6: Anatomy of Flowering Plants • Chapter-8: Cell-The Unit of Life • Chapter-9: Biomolecules • Chapter-10: Cell Cycle and Cell Division • Chapter-13: Photosynthesis in Higher Plants Photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; C3 and C4 pathways, photorespiration. • Chapter-14: Respiration in Plants Cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic). • Chapter-15: Plant - Growth and Development Growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA • Chapter-18: Body Fluids and Circulation Structure of human heart and blood vessels; cardiac cycle. • Chapter-19: Excretory Products and their Elimination Human excretory system -structure and function; urine formation, osmoregulation • Chapter-20: Locomotion and Movement Contractile proteins and muscle contraction • Chapter-21: Neural Control and Coordination Generation and conduction of nerve impulse. • Chapter-22: Chemical Coordination and Integration Endocrine glands and hormones; human endocrine system - hypothalamus, pituitary, pineal, thyroid, parathyroid, adrenal, pancreas, gonads. |
| ACCOUNTANCY | <p>Introduction to Accounting</p> <p>Accounting- concept, meaning, as a source of information, objectives, advantages and limitations, types of accounting information; users of accounting information and their needs. Qualitative Characteristics of Accounting Information. Role of Accounting in Business.</p> <p>Basic Accounting Terms- Entity, Business Transaction, Capital, Drawings. Liabilities (Non-Current and Current). Assets (Non-Current, Current); Expenditure (Capital and Revenue), Expense, Revenue,</p> |

Income, Profit, Gain, Loss, Purchase, Sales, Goods, Stock, Debtor, Creditor, Voucher, Discount (Trade discount and Cash Discount)

Theory Base of Accounting

Fundamental accounting assumptions: GAAP: Concept

Basic accounting concept: Business Entity, Money Measurement, Going Concern, Accounting

Period, Cost Concept, Dual Aspect, Revenue Recognition, Matching, Full Disclosure, Consistency,

Conservatism, Materiality and Objectivity

System of Accounting. Basis of Accounting: cash basis and accrual basis Accounting Standards:

Applicability in Ind AS

Goods and Services Tax (GST): Characteristics and Advantages.

Recording of Business Transactions

Voucher and Transactions: Source documents and Vouchers, Preparation of Vouchers, Accounting

Equation Approach: Meaning and Analysis, Rules of Debit and Credit.

Recording of Transactions: Books of Original Entry- Journal

Special Purpose books:

Cash Book: Simple, cash book with bank column and petty cashbook

Purchases book Sales

book Purchases return book Sales return book Journal proper.

Ledger: Format, posting from journal and subsidiary books,

Balancing of accounts

Bank Reconciliation Statement:

Need and preparation of Bank Reconciliation Statement

Depreciation, Provisions and Reserves

Depreciation: Meaning, Features, Need, Causes, factors

Other similar terms: Depletion and Amortisation

Methods of Depreciation: i. Straight Line Method (SLM) ii. Written Down Value Method (WDV)

Note: Excluding change of method

Difference between SLM and WDV; Advantages of SLM and WDV

Method of recording depreciation

Provisions, Reserves, Difference Between Provisions and Reserves.

Types of Reserves: i. Revenue reserve ii. Capital reserve iii. General reserve iv. Specific reserve v.

Secret Reserve Difference between capital and revenue reserve

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| | <p>Trial balance and Rectification of Errors Trial balance: objectives, meaning and preparation Errors: classification-errors of omission, commission, principles, and compensating; their effect on Trial Balance. Detection and rectification of errors; (i) Errors which do not affect trial balance (ii) Errors which affect trial balance (iii) Preparation of suspense account.</p> <p>Financial Statements Meaning, objectives and importance; Revenue and Capital Receipts; Revenue and Capital Expenditure; Deferred Revenue expenditure. Opening journal entry. Trading and Profit and Loss Account: Gross Profit and Net profit. Preparation of Balance Sheet Adjustments in preparation of financial statements with respect to closing stock, outstanding expenses, prepaid expenses, accrued income, income received in advance, depreciation, bad debts, provision for doubtful debts, provision for discount on debtors, Abnormal loss, Goods taken for personal use/staff welfare, interest on capital and managers commission. Preparation of Trading and Profit and Loss account and Balance Sheet of a sole proprietorship with adjustments.</p> |
| BUSINESS STUDIES | <ul style="list-style-type: none"> ● Ch 1- Business, Trade and Commerce ● Ch2- Forms of Business Organization ● Ch3- Private, Public and Global Enterprises ● Ch4- Business Services ● Ch5- Emerging Modes Of Business ● Ch6- Social Responsibilities of Business and Business Ethics ● Ch7- Formation of a Company ● Ch8- Sources of Business Finance ● Ch9- Small Business and Entrepreneurship ● Ch10- Internal Trade ● Ch11- International Business |
| ECONOMICS | <p>MICRO ECONOMICS</p> <ul style="list-style-type: none"> ● UNIT -1 , Introduction and production possibility curve ● UNIT-2, theory of consumer behavior ● UNIT-3, theory of producer behavior |

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| | <ul style="list-style-type: none"> UNIT -4 , forms of market (only perfect competition) and price determination <p>STATISTICS</p> <ul style="list-style-type: none"> UNIT -1 , introduction UNIT-2, collection , presentation and organization of data UNIT-3, statistical tools and interpretation (ch- dispersion entirely deleted by CBSE <p>(all the units to be done as per the syllabus given in UT1, half yearly and UT-2)</p> |
| INFORMATICS PRACTICES | <ul style="list-style-type: none"> Chapter 1 - Computer systems Chapter 2 - Emerging trends Chapter 3 - Overview of Python Chapter 4 - Working with Lists and Dictionaries Chapter 5 - Understanding Data Chapter 6 - Introduction to Numpy Chapter 7 - Database concepts Chapter 8 - Introduction to SQL <p>Above chapters and topics are from the NCERT book.(ENTIRE SYLLABUS)</p> |
| HISTORY | <ul style="list-style-type: none"> THEME 2 : Writing & city life THEME 3 : An empire across three continents THEME 5 : The nomadic Empire THEME 6 : The three orders THEME 7 : Changing cultural traditions THEME 10 : Displacing the indigenous people THEME 11: Paths to Modernisation |
| GEOGRAPHY | <ul style="list-style-type: none"> <u>Fundamentals of Physical Geography</u> <ul style="list-style-type: none"> 1. Geography as a Discipline 2. The Origin and Evolution of the Earth 3. Interior of the Earth 4. Distribution of Oceans and Continents 5. Geomorphic Processes 6. Landforms and their Evolution 7. Composition and Structure of Atmosphere 8. Solar Radiation, Heat Balance and Temperature 9. Atmospheric Circulation and Weather Systems 10. Water in the Atmosphere 11. World Climate and Climate Change 12. Water (Oceans) 13. Movements of Ocean Water <u>India, Physical Environment</u> <ul style="list-style-type: none"> 1. India – Location 2. Structure and Physiography 3. Drainage System |

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| | <ul style="list-style-type: none"> ○ 4. Climate ○ 5. Natural Vegetation |
| HOME SCIENCE | <p>Unit I Introduction to Home Science</p> <p>Unit II: Understanding oneself: Adolescence Ch.- Understanding the Self. A. 'Who am I'? B. Development and Characteristics of the Self (Development characteristics and needs of adolescents) C. Influences on Identity Ch.- Food, Nutrition, Health and Fitness Ch.- Management of Resources Ch.- Fabric Around us Ch.- Media and Communication Technology</p> <p>Unit III: Understanding family, community and society Ch.- Concerns and needs in diverse contexts: a. Nutrition, Health and Hygiene b. Resources Availability and Management</p> <p>Unit IV: Childhood Ch.- Survival, Growth and Development Ch.- Nutrition, Health and Wellbeing Ch.- Our Apparel</p> <p>Unit V: Adulthood Ch.- Health and Wellness Ch.- Financial Management and planning Ch.- Care and Maintenance of fabrics</p> |
| PAINTING | <p>UNIT I</p> <ul style="list-style-type: none"> ● CHAPTER 1: ART -AN INTRODUCTION ● CHAPTER 2: ART AND ORIGIN ● CHAPTER 3: ORIGIN AND DEVELOPMENT OF DIFFERENT FORMS OF FINE ARTS IN INDIA ● CHAPTER 4 : PREHISTORIC ROCK PAINTINGS ● CHAPTER 5: ART OF INDUS VALLEY <p>UNIT II</p> <ul style="list-style-type: none"> ● CHAPTER 6: ART DURING MAURYAN, SHUNGA, KUSHANA, GUPTA PERIODS ● CHAPTER 7: ART OF AJANTA CAVES <p>UNIT III</p> |

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| | <ul style="list-style-type: none"> ● CHAPTER 8: ARTISTIC ASPECTS OF INDIAN TEMPLE SCULPTURES ● CHAPTER 9: INDIAN BRONZE SCULPTURES ● CHAPTER 10: SOME ARTISTIC ASPECTS OF INDO- ISLAMIC ARCHITECTURE |
| PHYSICAL EDUCATION | <ul style="list-style-type: none"> ● Chapter 1.Changing Trends and Career in Physical Education ● Chapter 2.Olympic Value Education ● Chapter 3.Physical Fitness, Wellness and Lifestyle ● Chapter 4.Physical Education and Sports for CWSN (Children with Special Needs- Divyang) ● Chapter 5.Yoga ● Chapter 6.Physical Activity and Leadership Training ● Chapter 7.Test, Measurement and Evaluation ● Chapter 9.Psychology and Sports ● Chapter 10.Training and Doping in Sports |
| POLITICAL SCIENCE | <p>BOOK- INDIAN CONSTITUTION AT WORK</p> <ol style="list-style-type: none"> 1) Constitution (Constitution: Why & How? , The Making of the Constitution ; Fundamental Rights and Directive Principles of State Policy ; Constitutional Amendments) 2) Election & Representation 3) Executive 4) Legislature 5) Judiciary 6) Federalism 7) Local Government <p>BOOK- POLITICAL THEORY</p> <ol style="list-style-type: none"> 1) Political Theory: An Introduction 2) Freedom 3) Equality 4) Social Justice 5) Rights 6) Citizenship 7) Nationalism 8) Secularism |
| PSYCHOLOGY | <p>Ch 1 - What is Psychology?</p> <p>Ch 2 - Methods of Enquiry</p> <p>Ch 4 - Human Development</p> <p>Ch 5 - Sensory, Attentional and Perceptual Processes</p> <p>Ch 6 - Learning</p> <p>Ch 7 - Human Memory</p> <p>Ch 8 - Thinking</p> <p>Ch 9 - Motivation and Emotion</p> |

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| | (Nature of Motivation, Types of Motives, Psychosocial Motives, Maslow's Hierarchy of Needs, Nature of Emotions including theories) |
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