Bal Bharati PUBLIC SCHOOL

SYLLABUS (2024-2025)

CLASS: XI
SUBJECT: BIOLOGY
TEXTBOOK:
1. NCERT BIOLOGY

HALF YEARLY EXAMINATION (23 AUGUST 2024 to 9 SEPTEMBER 2024)

MONTHS	UNIT/ CHAPTER / TOPIC	SUBTOPICS	LEARNING OUTCOMES	WEIGHTAGE (MARKS)
APRIL 2024 to AUGUST 2024	UNIT - I Diversity of Living organisms **Chapters** 1. The Living World	1.Biodiversity; Need for classification; three domains of life; taxonomy and systematics; conceptof species and taxonomical hierarchy; binomial nomenclature	Classifies organisms, phenomena and processes, based on certain characteristics / salient features systematically in more scientific and organized manner; such as five kingdom classification system of organisms under various hierarchical structural organizations; natural resources, etc. Applies scientific terminology for organisms, processes, and phenomena based on internationally accepted conventions; Binomial nomenclature of organisms; coelom, bisymmetric body etc.; bisexual and unisexual organisms, actinomorphic and zygomorphic flowers, aestivation, placentation Classifies organisms, phenomena and processes	**25** **(3)** **(5)** **(8)** **(9)**
	2. Biological Classification	2. Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses and Viroids.		
	3. Plant Kingdom	3. Classification of plants into major groups; Salient and distinguishing features and a few examples of Algae, Bryophyta, Pteridophyta, Gymnospermae		
	4. Animal Kingdom	4. Salient features and classification of animals, non-chordates up to phyla level and		

		chordates upto class level.	based on certain characteristics/ salient features systematically in a scientific and organized manner	
	UNIT – II Structural Organisation in Plants and Animals **Chapters** 5 Morphology of Flowering Plants 6. Anatomy of Flowering Plants 7. Structural Organisation in Animals	1. Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of family Solanaceae 2. Anatomy and functions of tissue systems in dicots and monocots. 3. Morphology, Anatomy and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of frog.	Applies scientific concepts of Biology in daily life and soving problems. Handles laboratory tools, and apparatuses, instruments and devices properly for performing activities/ experiments/ investigations such as; uses microscope for observing internal structure of transverse section of root, stem and leaves Explains efficiently systems, relationships, processes and phenomena such as; organ systems in frog.	**20** **(7)** **(6)** **(7)**
	UNIT – III Cell Structure and Function **Chapters** 8. Cell – The Unit of Life	1. Cell theory and cell as the basic unit of life, structure of prokaryotic and eukaryotic cells; Plant cell and animal cell; cell envelope; cell membrane, cell wall; cell organelles - structure and function; endomembrane system, endoplasmic reticulum, golgi bodies, lysosomes, vacuoles, mitochondria, ribosomes, plastids,	Describes contribution of scientists/researchers all over the world in systematic evolution of concepts, scientific discoveries and inventions in the field of biology based on historical scientific events/ timelines etc; such as; Anton Von Leeuwenhoek described a live cell and later, Robert Brown discovered the nucleus; in classification systems of living organisms, Aristotle was the earliest and then	**25** **(8)**

		micro bodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function); nucleus.	Linnaeus proposed two kingdom classification and later R. H. Whittaker proposed five kingdom classification, etc.	
	9. Biomolecules	2. Chemical constituents of living cells: biomolecules, structure and function of proteins, carbohydrates, lipids, and nucleic acids; Enzyme - types, properties, enzyme action. (Topics excluded: Nature of Bond Linking Monomers in a Polymer, Dynamic State of Body Constituents Concept of Metabolism, Metabolic Basis of Living, The Living State)	Relates processes and phenomena with causes and effects, such as, characteristics of living with cell as basic structural and functional unit of life. Draws labelled diagrams, flow charts, concept maps, graphs and diagrams. Communicates the findings and conclusions effectively.	**(8)**
	10. Cell Cycle and Cell Division	3. Cell cycle, mitosis, meiosis and their significance	Applies scientific concepts and draws stages of Mitosis & Meiosis and correlates with real life.	**(9)**
TOTAL MARKS				**70**

NOTE: The above syllabus is for assessment purpose and remaining chapters/topics may be taught as subject-learning enrichment.

Bal Bharati PUBLIC SCHOOL

SYLLABUS (2024-2025)

CLASS: XI (Commerce)
SUBJECT: BUSINESS STUDIES
TEXTBOOKS:
1. NCERT-BUSINESS STUDIES

HALF YEARLY EXAMINATION (23 AUGUST 2024 to 9 SEPTEMBER 2024)

MONTHS	UNIT/ CHAPTER / TOPIC	SUBTOPICS	WEIGHTAGE (MARKS)
APRIL 2024 to AUGUST 2024	Unit 1: Evolution and Fundamentals of Business	• History of Trade and Commerce in India • Business – meaning and characteristics • Business, profession and employment – Concept • Objectives of business • Classification of business activities - Industry and Commerce • Industry-types • Commerce-trade and auxiliaries to trade • Business risk-Concept	14
	Unit 2: Forms of Business organizations	• Sole Proprietorship • Partnership • Hindu Undivided Family Business • Cooperative Societies • Company • Formation of company • Choice of form of business organization	20
	Unit 3: Public, Private and Global Enterprises	• Public sector and private sector enterprises- Concept	16

		• Forms of public sector enterprises: Departmental Undertakings, Statutory Corporations and Government Company • Global Enterprises – Feature Joint venture Public private partnership – concept	
	Unit 4: Business Services	• Business services – meaning and types. Banking: Types of bank accounts • Banking services with particular reference to Bank Draft, Bank Overdraft, and Cash credit. • E-Banking • Insurance – Principles, Types • Postal Service	18
	Unit 5: Emerging Modes of Business	• E - business: concept, scope and benefits	12
TOTAL MARKS			80

NOTE: The above syllabus is for assessment purpose and remaining chapters/topics may be taught as subject-learning enrichment.

Schools may consider the following suggestions:

- Make sure you are thorough with the entire syllabus before allocating weightage.
- Please rationalize the syllabus based on the Annual Examination Schedule.
- The specific syllabus for each exam should be clearly mentioned.
- Please mention the chapters which are not meant for evaluation/assessment purpose and should be done for learning enrichment.
- Blueprint along with the weightage assigned to each chapter is to be mentioned. Also, certain topics that have been thoroughly covered in previous examinations can be assessed through revision assignments or projects. This would allow students to focus on more important chapters.
- Blueprint and question paper design along with weightage to be submitted with Question Paper.
- Classes (IX-XI) subject teachers to adhere to the instructions as per the CBSE Curriculum.
- The subject allotments for Class XI will be discussed in the next Advisory Council Meeting and shared with all.

Bal Bharati PUBLIC SCHOOL

SYLLABUS (2024-2025)

CLASS: XI (Science)

SUBJECT: CHEMISTRY

TEXTBOOKS:

1. **NCERT CHEMISTRY-PART-I**
2. **NCERT CHEMISTRY-PART-II**

HALF YEARLY EXAMINATION (23 AUGUST 2024 to 9 SEPTEMBER 2024)

MONTHS	UNIT/ CHAPTER / TOPIC	SUBTOPICS	WEIGHTAGE (MARKS)
APRIL 2024 to AUGUST 2024	Chapter 1: Some basic concepts of Chemistry	1. Importance and scope of Chemistry 2. Nature of matter 3. laws of chemical combination 4. Dalton's atomic theory 5. Atomic and molecular masses 6. mole concept and molar mass 7. percentage composition 8. empirical and molecular formula 9. stoichiometry and calculations based on stoichiometry	17
	Chapter2: Structure of Atom	1. Sub atomic particles 2. Atomic models 3. Development leading to Bohr’s model of Atom 4. Bohr’s Model for Hydrogen atom 5. Towards Quantum Mechanical Model of an Atom 6. Quantum mechanical model of atom	21

	Chapter 3: Classification of elements and Periodicity in properties	1. Significance of classification 2. Brief history of the development of periodic table 3. Modern periodic law and the present form of periodic table 4. Nomenclature of elements with atomic number greater than 100. 5. Periodic trends in properties of elements	15
	Chapter 4: Chemical bonding and molecular structure	1. Kossel lewis approach to chemical bonding 2. Covalent and ionic bond 3. Bond parameter 4. VSEPR theory 5. Valence bond theory 6. Hybridisation 7. Molecular orbital theory of homonuclear diatomic molecules(qualitative idea only) 8. Hydrogen bond	17
TOTAL MARKS			70

NOTE: The above syllabus is for assessment purpose and remaining chapters/topics may be taught as subject-learning enrichment.

Schools may consider the following suggestions:

- Make sure you are thorough with the entire syllabus before allocating weightage.
- Please rationalize the syllabus based on the Annual Examination Schedule.
- The specific syllabus for each exam should be clearly mentioned.
- Please mention the chapters which are not meant for evaluation/assessment purpose and should be done for learning enrichment.
- Blueprint along with the weightage assigned to each chapter is to be mentioned. Also, certain topics that have been thoroughly covered in previous examinations can be assessed through revision assignments or projects. This would allow students to focus on more important chapters.
- Blueprint and question paper design along with weightage to be submitted with Question Paper.
- Classes (IX-XI) subject teachers to adhere to the instructions as per the CBSE Curriculum.
- The subject allotments for Class XI will be discussed in the next Advisory Council Meeting and shared with all.

Bal Bharati PUBLIC SCHOOL

SYLLABUS (2024-2025)

CLASS: XI **SUBJECT: ECONOMICS**

TEXTBOOKS:

1.NCERT

2. T. R Jain and Sandeep Garg

HALF YEARLY EXAMINATION (23 AUGUST 2024 to 9 SEPTEMBER 2024)

MONTHS	UNIT/ CHAPTER / TOPIC	SUBTOPICS	WEIGHTAGE (MARKS)
APRIL 2024 to AUGUST 2024	Unit 1 (Statistics) **Introduction**	What is economics? Meaning, scope, functions and importance of Statistics in Economics	12.5% (10 marks)
	Unit 2 (Statistics) **Collection, organization, and presentation of data.**	**Collection of data**-sources of data -primary and secondary. How basic data is collected with concept of sampling, Methods of collecting data, Some important sources of secondary data. Census of India and NSSO. **Organization of data**: meaning and types of variables, frequency distribution. **Presentation of data**: Tabular presentation and Diagrammatic presentation of data: (I)Geometric forms (bar diagrams and pie diagrams), (ll)Frequency Diagrams (Histogram, Polygon and Ogive) (lll)Arithmetic line graphs.(time series graphs)	37.5% (30 marks)
	Unit 4 (Micro Economics) **Introduction**	Meaning of Microeconomics and Macroeconomics, Positive and normative economics. What is an economy? Central problems of an economy: What, how and for whom to produce, concepts of PPF and	12.5% (10 marks)

		opportunity cost.	
	Unit 5 (Micro Economics) **Consumer's Equilibrium and Demand**	**Consumer's equilibrium** - meaning of utility, Marginal utility, Law of diminishing marginal utility, Conditions of consumer equilibrium using marginal utility analysis. Indifference curve analysis of consumer's equilibrium - the consumer's budget (budget set and budget line), preferences of consumer (indifference curve, indifference map) and conditions of consumer's equilibrium. **Demand** , Market demand, Determinants of demand, demand schedule, Demand curve and its slope, Movement along and shifts in the demand curve, Price elasticity of demand- Factors affecting price elasticity of demand, Measurement of price elasticity of demand- percentage change method and total expenditure method.	37.5 (30 marks)
TOTAL MARKS			**80 marks**

SYLLABUS
(2024-2025)

CLASS: XI **SUBJECT: ENGLISH**

TEXTBOOKS:
1. **Hornbill**
2. **Snapshots**

HALF YEARLY EXAMINATION (23 AUGUST 2024 to 9 SEPTEMBER 2024)

MONTHS	UNIT/ CHAPTER / TOPIC	SUBTOPICS	LEARNING OUTCOMES	WEIGHTAGE
APRIL 2024 to AUGUST 2024	**Reading Comprehension through Unseen Passages**	1. Factual, descriptive, or literary Passage	To promote conceptual understanding, decoding, and analysis of literary texts, enabling inference, theme interpretation, and appreciation of conventions. Enhancing vocabulary and summarizing texts effectively.	10
		2. Case-based Factual passage		8
		3. Note-Making and Summarization		5+3=8
	Grammar and Creative Writing Skills	1. Gap filling (Tenses, Clauses) 2. Reordering of Sentences/Transformation of Sentences	To develop the creative expression of an opinion, to enhance reasoning, justifying, and illustrating by using	7
		Short composition: 3. Classified Advertisements		3

		4. Poster Designing	appropriate format and style. Applying conventions, using integrated structures with accuracy and fluency.	3
		5. Speech Writing		5
		6. Debate Writing		5
	Literature Textbook and Supplementary Reading Text	**Hornbill** Lesson 1: The Portrait of a Lady Poem 1: A Photograph Lesson 2: We're Not Afraid to Die…If We Can All Be Together Lesson 3: Discovering Tut: The Saga Continues Poem 2: The Laburnum Top **Snapshots** Lesson 1: The Summer of the Beautiful White Horse Lesson 2: The Address Lesson 3: Mother's Day	To enhance reasoning, appreciating, and applying literary conventions. To enable extracting relevant information, identifying the central theme, understanding the writer's message and writing fluently.	31
TOTAL MARKS				80

BAL BHARATI PUBLIC SCHOOL

SYLLABUS (2024-2025)

CLASS: XI SUBJECT: MATHEMATICS

TEXTBOOKS:

1. Mathematics - Textbook for class XI - NCERT Publication

2. Mathematics exemplar problems for class XI, NCERT publication

HALF YEARLY EXAMINATION (23 AUGUST 2024 to 9 SEPTEMBER 2024)

MONTHS	UNIT/ CHAPTER / TOPIC	SUBTOPICS	WEIGHTAGE
APRIL 2024 to AUGUST 2024	: **Sets and Functions** • **Sets** • **Relations & Functions** • **Trigonometric Functions**	**Sets** Sets and their representations, Empty set, Finite and Infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals (with notations). Universal set. Venn diagrams. Union and Intersection of sets. Difference of sets. Complement of a set. Properties of Complement. **Relations & Functions** Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (upto R x R x R).Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. Sum, difference,	12 18

		product and quotients of functions. **Trigonometric Functions** Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity sin2x + cos2x = 1, for all x. Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs. Expressing sin (x±y) and cos (x±y) in terms of sinx, siny, cosx & cosy and their simple applications. Deducing identities like the following: tan(x ± y) = tan x ± tan y 1 ∓ tan x tan y , cot(x ± y) = cot x cot y ∓ 1 cot y ± cot x sinα ± sinβ = 2sin 1 2 (α ± β)cos 1 2 (α ∓ β) cosα + cosβ = 2cos 1 2 (α + β)cos 1 2 (α − β) $cos\alpha - cos\beta = -2sin\ 1\ 2\ (\alpha + \beta)sin\ 1\ 2\ (\alpha - \beta)$ Identities related to sin2x, cos2x, tan2 x, sin3x, cos3x and tan3x	22
	Calculus	**Limits and Derivatives** Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. Definition of derivative relate it to scope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions.	20
	Statistics	**Statistics** Measures of Dispersion: Range, Mean deviation, variance and standard deviation of ungrouped/grouped data.	8

TOTAL MARKS			80

ANNUAL EXAMINATION

MONTHS	UNIT/CHAPTER /TOPIC	SUBTOPICS
APRIL 2024 to JANUARY 2025	**Sets and Functions** • **Sets** • **Relations & Functions** • **Trigonometric Functions**	**Sets** Sets and their representations, Empty set, Finite and Infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals (with notations). Universal set. Venn diagrams. Union and Intersection of sets. Difference of sets. Complement of a set. Properties of Complement. **Relations & Functions** Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (upto R x R x R).Definition of relation, pictorial diagrams, domain, co-domain and range of a relation. Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. Sum, difference, product and quotients of functions. **Trigonometric Functions** Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity sin2x + cos2x = 1, for all x. Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs. Expressing sin (x±y) and cos (x±y) in terms of sinx, siny, cosx & cosy and their simple applications. Deducing identities like the following: tan(x ± y) = tan x ± tan y 1 ∓ tan x tan y , cot(x ± y) = cot x cot y ∓ 1 cot y ± cot x sinα ± sinβ = 2sin 1 2 (α ± β)cos 1 2 (α ∓ β) cosα + cosβ = 2cos 1 2 (α + β)cos 1 2 (α − β) $cos\alpha - cos\beta = -2sin\ 1\ 2\ (\alpha + \beta)sin\ 1\ 2\ (\alpha - \beta)$ Identities related to sin2x, cos2x, tan2 x, sin3x, cos3x and tan3x.

	Algebra • **Complex Numbers and Quadratic Equations** • **Linear Inequalities** • **. Permutations and Combinations** • **Binomial Theorem** • **Sequence and Series**	**Complex Numbers and Quadratic Equations** Need for complex numbers, especially$\sqrt{-1}$, to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Argand plane **Linear Inequalities** Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line. **Permutations and Combinations** Fundamental principle of counting. Factorial n. (n!) Permutations and combinations, derivation of Formulae for nPr and nCr and their connections, simple applications. **Binomial Theorem** Historical perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications. **Sequence and Series** Sequence and Series. Arithmetic Mean (A.M.) Geometric Progression (G.P.), general term of a G.P., sum of n terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M.
	: **Coordinate Geometry** • **Straight Lines** • **Conic Sections** • **Introduction to Three-dimensional Ge**ometry	**Straight Lines** Brief recall of two dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point -slope form, slope-intercept form, two-point form, intercept form, Distance of a point from a line. • **Conic Sections** Sections of a cone: circles, ellipse, parabola, hyperbola, a point, a straight line and a pair of intersecting lines as a degenerated case of a conic section. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.

		Introduction to Three-dimensional Geometry Coordinate axes and coordinate planes in three dimensions. Coordinates of a point. Distance between two points.
	: **Calculus** • **Limits and Derivatives**	**Limits and Derivatives** Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions. Definition of derivative relate it to scope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions
	Statistics and Probability • **Statistics** • **Probability**	**Statistics** Measures of Dispersion: Range, Mean deviation, variance and standard deviation of ungrouped/grouped data. **Probability** Events; occurrence of events, 'not', 'and' and 'or' events, exhaustive events, mutually exclusive events, Axiomatic (set theoretic) probability, connections with other theories of earlier classes. Probability of an event, probability of 'not', 'and' and 'or' events

NOTE:

For the annual exams, schools may consider the following suggestions:

- Rationalize the syllabus as per their individual annual examination schedule.
- The blueprint of the annual examination question paper can be shared with the students mentioning the topics that would be covered through projects, revision assignments and various typology of questions (Ch 2 & 3 may have questions based on MCQs etc.)
- For classes 9 to 12, kindly adhere to the CBSE curriculum 2024-25.

BAL BHARATI PUBLIC SCHOOL

SYLLABUS (2024-2025)

CLASS: XI SUBJECT: PHYSICS

TEXTBOOKS:

1. **PHYSICS - Textbook for class XI - NCERT Publication Vol. 1 & 2**
2. **Physics exemplar problems for class XI, NCERT publication**
3. **Concepts of Physics, H. C. Verma**

HALF YEARLY EXAMINATION (23 AUGUST 2024 to 9 SEPTEMBER 2024)

MONTHS	UNIT/ CHAPTER / TOPIC	SUBTOPICS	WEIGHTAGE
APRIL 2024 to AUGUST 2024	**Units and Measurements (8 periods)**	Units of measurement; • systems of units • SI units, fundamental and derived units • Significant figures • Dimensions of physical quantities, • Dimensional analysis and its applications.	8
	Kinematics (26 periods)	• Elementary concepts of differentiation and integration for describing motion • Scalar and vector quantities; • position and displacement vectors • General vectors and their notations • Equality of vectors,	18

		• 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 Straight Line** • Frame of reference Motion in a straight line • Uniform and non-uniform motion • Instantaneous velocity • Uniformly accelerated motion • Velocity - time and position-time graphs. • Relations for uniformly accelerated motion (graphical treatment). **Motion in a plane** • Cases of uniform velocity and uniform acceleration, • Projectile motion • Uniform circular motion • Intuitive concept of force, Inertia,	
	LAWS OF MOTION (14 periods)	• Intuitive concept of force, Inertia, • Newton's first law of motion; • Momentum and Newton's	12

		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 • Rolling friction, lubrication. • Dynamics of uniform circular motion: • Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road).	
	Work, Energy and Power **(12 periods)**	• 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 and inelastic	10

		collisions in one and two dimensions.	
	In view of the feedback received from teachers and the updated schedule of Common HY Exams, the following two chapters i.e. Motion of System of Particles and Rigid Bodies Gravitation are being removed from the SYLLABUS of Common HY Exam.		
	Motion of System of Particles and Rigid Body (20 Periods)	• Centre of mass of a two-particle system • Momentum conservation and Centre of mass motion. • Centre of mass of a rigid body • Centre of mass of a uniform rod. • Moment of a force or 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	12

		moments of inertia for simple geometrical objects (no derivation).	
	Chapter–8: Gravitation (12 periods)	• Universal law of gravitation. • Acceleration due to gravity and its variation with altitude and depth. • Gravitational potential energy and gravitational potential • Escape speed, orbital velocity of a satellite • Kepler's laws of planetary motion	10
TOTAL MARKS			70

ANNUAL EXAMINATION

MONTHS	UNIT/ CHAPTER / TOPIC	SUBTOPICS	WEIGHTAGE
APRIL 2024 to January 2025	**Units and Measurements (8 periods)**	• Units of measurement • systems of units • SI units, fundamental and derived units • Significant figures • Dimensions of physical quantities, • Dimensional analysis and its applications.	3
	Kinematics (26 periods)	• Elementary concepts of differentiation and integration for describing motion	12

		• 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 Straight Line** • Frame of reference Motion in a straight line • Uniform and non-uniform motion • Instantaneous velocity • Uniformly accelerated motion • Velocity - time and position-time graphs. • Relations for uniformly accelerated motion (graphical treatment). **Motion in a plane** • Cases of uniform velocity and uniform acceleration, • Projectile motion • Uniform circular motion	

		• Intuitive concept of force, Inertia,	
	LAWS OF MOTION (14 periods)	• Intuitive concept of force, 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 • Rolling friction, lubrication. • Dynamics of uniform circular motion: • Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road).	8
	Work, Energy and Power (12 periods)	• Work done by a constant force and a variable force; • Kinetic energy, work-	5

		energy theorem • Power • Notion of potential energy, • Potential energy of a spring, • Conservative forces & non-conservative forces • Motion in a vertical circle; • Elastic and inelastic collisions in one and two dimensions.	
	Motion of System of Particles and Rigid Body (20 Periods)	• Centre of mass of a two-particle system • Momentum conservation and Centre of mass motion. • Centre of mass of a rigid body • Centre of mass of a uniform rod. • Moment of a force or torque • Angular momentum • Law of conservation of angular momentum and its applications • Equilibrium of rigid bodies, • Rigid body rotation and • Equations of rotational	7

		motion • Comparison of linear and rotational motions • Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation).	
	Chapter-8: Gravitation (12 periods)	• Universal law of gravitation. • Acceleration due to gravity and its variation with altitude and depth. • Gravitational potential energy and gravitational potential • Escape speed, orbital velocity of a satellite • Kepler's laws of planetary motion	5
	Properties of Bulk Matter (8 Periods)	• Elasticity • Stress-strain relationship, Hooke's law • Young's modulus • Bulk modulus • Shear modulus of rigidity (qualitative idea only) • Poisson's ratio Elastic energy	10
	Mechanical Properties of Fluids (16 Periods)	• Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes) • Effect of gravity on fluid pressure. Viscosity • Stokes' law	

		• Terminal velocity • Streamline and turbulent flow, critical velocity • Bernoulli's theorem and its simple applications • Surface energy and surface tension • Angle of contact • Excess of pressure across a curved surface • Application of surface tension ideas to drops, bubbles and capillary rise.	
	Thermal Properties of Matter (4 Periods)	• Heat & Temperature • Thermal expansion of solids, liquids and gases • Anomalous expansion of water; specific heat capacity, Cp, Cv calorimetry • Change of state - latent heat capacity. • Heat transfer- conduction, convection and radiation, • Thermal conductivity • Qualitative ideas of Blackbody radiation • Wein's displacement Law, Stefan's law	
	Thermodynamics (12 Periods)	• Thermal equilibrium Definition of temperature • Zeroth law of thermodynamics • Heat, work and internal energy • First law of thermodynamics • Second law of thermodynamics • Change of condition of	5

		gaseous state - isothermal, adiabatic, reversible, irreversible, and cyclic processes	
	Behavior of Perfect Gases and Kinetic Theory of Gases (08 Periods)	• Equation of state of a perfect gas • work done in compressing a gas. Kinetic theory of gases – assumptions • Concept of pressure • Kinetic interpretation of temperature • Rms speed of gas molecules Degrees of freedom • Law of equi-partition of energy (statement only) and application to specific heat capacities of gases • Concept of mean free path, Avogadro's number.	5
	OSCILLATIONS	• Periodic motion - time period, frequency, displacement as a function of time • Periodic functions and their applications Simple harmonic motion (S.H.M) and its equations of motion; Phase • Oscillations of a loaded spring- restoring force and force constant • Energy in S.H.M. Kinetic and potential energies; • Simple pendulum derivation of expression for its time period.	5
	WAVES	Wave motion: Transverse and longitudinal waves	5

		Speed of travelling wave, displacement relation for a progressive wave, Principle of superposition of waves Reflection of waves • Standing waves in strings and organ pipes, fundamental mode and harmonics • Beats	

NOTE:

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- The blueprint of the annual examination question paper can be shared with the students mentioning the topics that would be covered through projects, revision assignments and various typology of questions.

SYLLABUS IS SUBJECT TO CHANGE ACCORDING TO THE REVISED NCERT TEXTBOOK FOR CLASS XI

SYLLABUS (2024-2025)

CLASS: XI
SUBJECT: ACCOUNTANCY
TEXTBOOKS:
1. **NCERT- ACCOUNTANCY (E-book)**
2. **DOUBLE ENTRY BOOK KEEPING: T.S. GREWAL**

HALF YEARLY EXAMINATION (23 AUGUST 2024 to 9 SEPTEMBER 2024)

MONTHS	UNIT/ CHAPTER / TOPIC	SUBTOPICS	WEIGHTAGE (MARKS)
	PART A- FINANCIAL ACCOUNTING I		
APRIL 2024 to AUGUST 2024	**Unit 1 Theoretical Framework**	a) **Introduction to Accounting** 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. b) **Basic Accounting terms** Entity, Business Transaction, Capital, Drawings. Liabilities (Non Current and Current). Assets (Non Current, Current); Expenditure (Capital and Revenue), Expense, Revenue, Income, Profit, Gain, Loss, Purchase, Sales, Goods, Stock, Debtor, Creditor, Voucher, Discount (Trade discount and Cash Discount) c) **Theory Base of Accounting (Fundamental Accounting Assumptions & Concepts)** • 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, Objectivity & Materiality • System of Accounting. Basis of Accounting: cash basis and accrual basis	**25**

		• Accounting Standards: Applicability of Accounting Standards (AS) and Indian Accounting Standards (IndAS) • Goods and Services Tax (GST): Characteristics and Advantages.	
	Unit 2: Accounting Process	**Recording of Business Transactions** • Voucher and Transactions: Source documents and Vouchers • Accounting Equation Approach: Meaning and Analysis, Rules of Debit and Credit.	**12**
		• Recording of Transactions: Books of Original Entry- Journal (Including trade discount, freight and cartage expenses for simple GST calculation • Ledger: Format, Posting from journal and subsidiary books, Balancing of accounts • Trial Balance	**23**
		• 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	**20**
TOTAL MARKS			**80**

NOTE: The above syllabus is for assessment purpose and remaining chapters/topics may be taught as subject-learning enrichment.