COMMON ANNUAL EXAMINATION (2024-2025) SYLLABUS

Bal Bharati

CLASS: XI TEXTBOOKS: 1. NCERT 2. T.S. Grewal SUBJECT: Accountancy

ANNUAL EXAMINATION

S.NO.	UNIT/ CHAPTER / TOPIC	SUBTOPICS	WEIGHTAGE
Par	L A: Financial Accounting-1		
1	Unit-1: Theoretical Frame Work	 Introduction to Accounting Accounting- concept, meaning, as a sourceof information, objectives, advantages andlimitations, types of accounting information; users of accounting information and their needs. Qualitative Characteristics of Accounting Information. Role of Accounting In Business. 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) Theory Base of Accounting Fundamental accounting assumptions:GAAP: Concept Basic Accounting Period, Cost Concept, Dual Aspect, Revenue Recognition, Matching, Full Disclosure, Consistency, Conservatism, Materiality and Objectivity 	12

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	 System of Accounting. Basis of Accounting: cash basis and accrual basis Accounting Standards: Applicability of Accounting Standards (AS) and Indian Accounting Standards (Ind AS) Goods and Services Tax (GST): Characteristics and Advantages 	
Unit-2: AccountingProcess	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- i. Journal ii. Special Purpose books: iii. Cash Book: Simple, cash book with bank column and petty cashbook iv. Purchases book v. Sales book v. Sales book vi. Purchases return book vii. Sales return book viii. Journal proper Note: Including trade discount, freight and cartage expenses for simple GST calculation.	44
	 Ledger: Format, Posting from journal andsubsidiary books, Balancing of accounts Bank Reconciliation Statement: Need and preparation, Bank ReconciliationStatement Depreciation, Provisions and Reserves Depreciation: Meaning, Features, Need, Causes, factors Other similar terms: Depletion and Amortisation Methods of Depreciation: Straight Line Method (SLM) Written Down Value Method (WDV) Note: Excluding change of method Difference between SLM and WDV; Advantages of SLM and WDV 	

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		 Method of recoding depreciation i.Charging to asset account ii.Creating provision for depreciation/accumulated depreciation account Treatment of disposal of asset Provisions, Reserves, Difference BetweenProvisions and Reserves. Types of Reserves: i. Revenue reserve ii. Capital reserve iii. General reserve iii. General reserve v. Specific reserve v. Secret Reserve Difference between capital and revenue reserve Trial balance: objectives, meaning and preparation (Scope: Trial balance with balance methodonly) 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 (i)Errors which affect trial balance 	
-		Preparation of suspense account	
Par	t B: Financial Accounting-II		
Unit 3	Financial Statements of Sole Proprietorship	 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, Operating profit and Net profit. Preparation. Balance Sheet: need, grouping and marshalling of assets and liabilities. Preparation. 	24

	2 · · · · · · · · · · · · · · · · · · ·	1.5
	 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 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. Incomplete Records Features, reasons and limitations. Ascertainment of Profit/Loss by Statement of Affairs method. (excluding conversion method) 	
	THEORY MARKS	80
Part C: Project Work	 Collection of source documents, preparation of vouchers, recording of transactions with the help of vouchers. Preparation of Bank Reconciliation Statement with the given cash book and the pass book with twenty to twenty-five transactions. 	20
		TOTAL MARKS=100



COMMON ANNUAL EXAMINATION (2024-2025)

SYLLABUS

CLASS: 11

SUBJECT: Biology

TEXTBOOKS:

1.Biology NCERT

2.

S. NO.	UNIT/CHAPTER /TOPIC	SUBTOPICS	WEIGHT AGE
1.	Diversity of Living Organisms	Chapter-1: The Living World Biodiversity; Need for classification; three domains of life; taxonomy and systematics; conceptof species and taxonomical hierarchy; binomial nomenclature Chapter-2: Biological Classification Five kingdom classification; Salient features and classification of Monera, Protista and Fungi into major groups; Lichens, Viruses and Viroids. Chapter-3: Plant Kingdom Classification of plants into major groups; Salient and distinguishing features and a few examples of Algae, Bryophyta, Pteridophyta, Gymnospermae (Topics excluded - Angiosperms, Plant Life Cycle and Alternation of Generations) Chapter-4: Animal Kingdom Salient features and classification of animals, non-chordates up to phyla level and chordates upto class level (salient features and at a few examples of each category). (No live animals or specimen should be displayed.)	15
2	Structural Organisation in plants and animals	Chapter-5: Morphology of Flowering Plants Morphology of different parts of flowering plants: root, stem, leaf, inflorescence, flower, fruit and seed. Description of family Solanaceae Chapter-6: Anatomy of Flowering Plants Anatomy and functions of tissue systems in dicots and monocots. Chapter-7: Structural Organisation in Animals Morphology, Anatomy and functions of different systems (digestive, circulatory, respiratory, nervous and reproductive) of frog.	10
3	Cell structure and function	Chapter-8: Cell-The Unit of Life 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	15

		function; endomembrane system, endoplasmic reticulum, golgi bodies, lysosomes, vacuoles, mitochondria, ribosomes, plastids, microbodies; cytoskeleton, cilia, flagella, centrioles (ultrastructure and function); nucleus. Chapter-9: Biomolecules 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) Chapter-10: Cell Cycle and Cell Division Cell cycle, mitosis, meiosis and their significance	
4	Plant Physiology	Chapter-13: Photosynthesis in Higher Plants Photosynthesis as a means of autotrophic nutrition; site of photosynthesis, pigments involved in photosynthesis (elementary idea); photochemical and biosynthetic phases of photosynthesis; cyclic and non-cyclic photophosphorylation; chemiosmotic hypothesis; photorespiration; C3 and C4 pathways; factors affecting photosynthesis. Chapter-14: Respiration in Plants Exchange of gases; cellular respiration - glycolysis, fermentation (anaerobic), TCA cycle and electron transport system (aerobic); energy relations - number of ATP molecules generated; amphibolic pathways; respiratory quotient. Chapter-15: Plant - Growth and Development Seed germination; phases of plant growth and plant growth rate; conditions of growth; differentiation, dedifferentiation and redifferentiation; sequence of developmental processes in a plant cell; plant growth regulators - auxin, gibberellin, cytokinin, ethylene, ABA.	12
5	Animal Physiology	Chapter-17: Breathing and Exchange of Gases Respiratory organs in animals (recall only); Respiratory system in humans; mechanism of breathing and its regulation in humans - exchange of gases, transport of gases and regulation of respiration, respiratory volume; disorders related to respiration - asthma, emphysema, occupationalrespiratory disorders. Chapter-18: Body Fluids and Circulation Composition of blood, blood groups, coagulation of blood; composition of lymph and its function; human circulatory system - Structure of human heart and blood vessels; cardiac cycle, cardiac output, ECG; double circulation; regulation of cardiac activity; disorders of	18

	angina pectoris, heart failure. Chapter-19: Excretory Products and their Elimination Modes of excretion - ammonotelism, ureotelism, uricotelism; human excretory system - structure and function; urine formation, osmoregulation; regulation of kidney function - renin - angiotensin, atrial natriuretic factor, ADH and diabetes insipidus; role of other organs in excretion; disorders - uremia, renal failure, renal calculi, nephritis; dialysis and artificial kidney, kidney transplant. Chapter-20: Locomotion and Movement Types of movement - ciliary, flagellar, muscular; skeletal muscle, contractile proteins and musclecontraction; skeletal system and its functions; joints; disorders of muscular and skeletal systems - myasthenia gravis, tetany, muscular dystrophy, arthritis, osteoporosis, gout. Chapter-21: Neural Control and Coordination Neuron and nerves; Nervous system in humans - central nervous system; peripheral nervous system and visceral nervous system; 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; mechanism of hormone action (elementary idea); role of hormones as messengers and regulators, hypo - and hyperactivity and related disorders; dwarfism, acromegaly, cretinism, goiter, exophthalmic goitre, diabetes, Addison's disease. Note: Diseases related to all the human physiological systems to be taught in brie	
	Sub Total (theory)	70
	Sub Total (Practical)	30
	Total	100
		TOTAL MARKS=



COMMON ANNUAL EXAMINATION (2024-2025)

SYLLABUS

CLASS: XI

SUBJECT: CHEMISTRY

TEXTBOOKS:

1. CHEMISTRY PART-I TEXT BOOK FOR CLASS XI 2. CHEMISTRY PART-II TEXT BOOK FOR CLASS XI

S.NO.	UNIT/CHAPTER /TOPIC	SUBTOPICS	WEIGHTAGE
1.	SOME BASIC CONCEPTS OF CHEMISTRY	 Nature of matter, laws of chemical combination, Dalton's atomic theory: concept of elements, atoms and molecules. Atomic and molecular masses, mole concept and molar mass, percentage composition, empirical and molecularformula, chemical reactions, stoichiometry and calculations based on stoichiometry. * Ways to calculate the concentration of solution(mass percentage , mole fraction, molarity, molality) are <u>excluded.</u> 	7
2.	STRUCTURE OF ATOM	Atomic number, isotopes and isobars. Thomson's model and its limitations. Rutherford's model andits limitations, Bohr's model and its limitations, concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle, concept of orbitals, quantum numbers, shapes of s, p and d orbitals, Aufbau principle, Pauli's exclusion principle and Hund's rule, electronic configuration of atoms, stability of half-filled andcompletely filled orbitals	9
3.	CLASSIFICATION OFELEMENTS AND PERIODICITY IN PROPERTIES	Modern periodic law and the present form of periodic table, periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, lonization enthalpy, electron gain enthalpy, electronegativity, valency.	6
4.	CHEMICAL BONDINGAND MOLECULAR STRUCTURES	Ionic bond, covalent bond, bond parameters, Lewis structure, polar character of covalent bond, covalent character of ionic bond, valencebond theory, resonance, geometry of covalent molecules, VSEPR theory, concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules,	7

		molecular orbital theory of homonuclear diatomic molecules(qualitative idea only), Hydrogen bond.	
5.	CHEMICAL THERMODYNAMICS	Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions. First law of thermodynamics -internal energy and enthalpy, heat capacity and specific heat, measurement of U and H, Hess's law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution. Second law of Thermodynamics entropy, Gibb's energy change, criteria for equilibrium.	9
6.	EQUILIBRIUM	Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant, factors affecting equilibrium - Le Chatelier's principle, ionic equilibrium- ionization of acids and bases, strong and weak electrolytes, degree of ionization, concept of pH, hydrolysis of salts (elementary idea),buffer solution, Henderson Equation, solubility product, common ion effect (with illustrative examples).	7
7.	REDOX REACTIONS	Redox reactions, oxidation number, balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number. *Applications of redox reaction are <u>not</u> <u>included</u>	4
8.	ORGANIC CHEMISTRY:SOME BASIC PRINCIPLES AND TECHNIQUES	General introduction, methods of purification, quantitative analysis *(of carbon, hydrogen and sulphur only) classification and IUPAC nomenclature of organic compounds. Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyperconjugation. Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions. *Qualitative analysis is not included	11
9.	HYDROCARBONS	Alkanes - Nomenclature, isomerism, conformation (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis. Alkenes - Nomenclature, structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparation, chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition	10

 and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition. Alkynes - Nomenclature, structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of - hydrogen, halogens, hydrogen halides and water. Aromatic Hydrocarbons: Introduction, IUPAC nomenclature, benzene: resonance, aromaticity, chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Craft alkylation and acylation, directive influence of functional group in monosubstituted benzene. 	
	TOTAL MARKS= 70

<u>FOR CLASS 11:</u> THEORY (Subject Specific as per CBSE): 80 / 70 / 60 / 30 marks INTERNAL ASSESSMENT (Subject Specific as per CBSE) (Practical/Project Work/Viva): 20 / 30 / 40 / 70 marks



COMMON ANNUAL EXAMINATION (2024-2025)

SYLLABUS

CLASS: XI

SUBJECT: English

TEXTBOOKS:

- 1. Hornbill
- 2. Snapshots

S.NO.	UNIT/CHAPTER /TOPIC	SUBTOPICS	WEIGHTAGE
1.	Section A-Reading Skills	 Factual/ Discursive Unseen Passage Case-based Passage with visual inputs like statistical data and charts. Note Making and Summarisation 	10 mks 08 mks 5+3=08 mks TOTAL
			10+8+8= 26 marks
2.	Section B-Grammar Creative Writing skills	 4. Questions on Gap filling (Tenses, Clauses) 5. Questions on re-ordering/transformation of sentences 6. Classified Advertisements 7. Poster 8. Speech 9. Debate 	4 mks 3mks 3mks 3mks 5mks 5mks TOTAL 4+3+3+3+5+5= 23marks

3.	Section C- Literature (Hornbill and Snapshots)	 Hornbill (Poetry)-A Photograph, The Laburnum Top, Voice of The Rain, Childhood, Father to Son Hornbill (Prose)- The Portrait of a Lady, We're not Afraid to Die, Discovering Tut, The Adventure, Silk Road Snapshots- Summer of the Beautiful White Horse, The Address, Mother's Day (Play) Birth, The Tale of Melon City. 	Extracts-3(Hornbill Poetry)+3(Hornbill Prose)+4 (Snapshots)=10 Short answers-6(3x2 =6 mks from Hornbill)+3 (1x3 mks from Snapshots)=9 Long answers-6(One from Hornbill)+6(One from Snapshots)=12 TOTAL 10+9+12= 31 marks
		THEORY- (Pen & Paper)	Total mks= 80
4.	Internal Assessment	1. Listening skills	05 mks
		2. Speaking Skills	05 mks
		3. Project	10 mks
		INTERNAL ASSESSMENT	5+5+10= 20 mks
		THEORY (PEN \$PAPER) INTERNAL ASSESSMENT	80 marks 20 marks TOTAL MARKS= 100

FOR CLASS 11:

THEORY (Subject Specific as per CBSE): 80 / 70 / 60 / 30 marks INTERNAL ASSESSMENT (Subject Specific as per CBSE) (Practical/Project Work/Viva): 20 / 30 / 40 / 70 marks



COMMON ANNUAL EXAMINATION (2024-2025)

SYLLABUS

CLASS: XI

SUBJECT: ECONOMICS (030)

TEXTBOOKS:

1. Part A: NCERT- Statistics for Economics

2. Part B: NCERT- Introductory Microeconomics Theory: 80 Marks Project: 20 Marks

	Project: 20 Marks		3 Hours	
S.NO.	UNIT/CHAPTER /TOPIC	SUBTOPICS	WEIGHTAGE	
		Part A: Statistics for Economics		
1.	Introduction	What is Economics? Meaning, scope, functions and importance of statistics in Economics		
2.	Collection, Organisation and Presentation of Data	Collection of data - sources of data - primary and secondary; how basic data is collected with concepts of Sampling; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey Organisation.	15 Marks	
		Organisation 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), (ii) Frequency diagrams (histogram, polygon and Ogive) and (iii) Arithmetic line graphs (time series graph).		
3.	Statistical Tools and Interpretation	Measures of Central Tendency- Arithmetic mean, Median and Mode		
		Correlation - meaning and properties, scatter diagram; measures of correlation - Karl Pearson's method (two variables ungrouped data) Spearman's rank correlation (Non-Repeated Ranks and Repeated Ranks).	25 Marks	
		Introduction to Index Numbers - meaning, types - Wholesale Price Index, Consumer Price Index and index of industrial production, uses of index numbers; Inflation and Index Numbers, Simple Aggregative Method.		
	Part B: Introductory Microeconomics			

4.	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 Production Possibility Frontier and Opportunity Cost.	4 Marks	
5.	Consumer's Equilibrium and Demand	Consumer's equilibrium - meaning of Utility, Marginal Utility, Law of Diminishing Marginal Utility, conditions of consumer's equilibrium using marginal utility analysis. Indifference curve analysis of consumer's equilibrium- the consumer's budget (budget set and budget line), preferences of the consumer (indifference curve, indifference map) and conditions of consumer's equilibrium.	14 Marks	
		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		
6.	Producer Equilibrium and Supply	Meaning of Production Function - Short-Run and Long- Run Total Product, Average Product and Marginal Product. Returns to a Factor		
		Cost - Short run costs - Total Cost, Total Fixed Cost, Total Variable Cost; Average Cost; Average Fixed Cost, Average Variable Cost and Marginal Cost - meaning and their relationships.	14 Marks	
		Revenue - Total Revenue, Average Revenue and Marginal Revenue - meaning and their relationship.		
		Producer's Equilibrium - meaning and its conditions in terms of Marginal Revenue-Marginal Cost.		
		Supply, market supply, determinants of supply, supply schedule, supply curve and its slope, movements along and shifts in supply curve, price elasticity of supply; measurement of price elasticity of supply - percentage- change method		
7.	Forms of Market and Price Determination under Perfect Competition with	Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply. (Short Run Only)	8 Marks	
	Simple Applications	Simple Applications of Demand and Supply: Price ceiling, Price floor		
			TOTAL MARKS= 80	

FOR CLASS 9: THEORY (Pen and Paper Test):80 marks INTERNAL ASSESSMENT:20 marks

<u>FOR CLASS 11:</u> THEORY (Subject Specific as per CBSE): 80 / 70 / 60 / 30 marks INTERNAL ASSESSMENT (Subject Specific as per CBSE) (Practical/Project Work/Viva): 20 / 30 / 40 / 70 marks



COMMON ANNUAL EXAMINATION (2024-2025)

SYLLABUS

CLASS: XI SUBJECT: PHYSICS (THEORY)

TEXTBOOKS:

- 1. NCERT PHYSICS PART-1
- 2. NCERT PHYSICS PART-2

S.NO.	UNIT/CHAPTE R /TOPIC	SUBTOPICS	WEIGHTAGE
1	Unit–I	Physical World and Measurement Chapter–2: Units and Measurements Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. Significant figures. Dimensions of physical quantities, dimensional analysis and its applications.	
2	Unit II	Kinematics	23
		Chapter–3: 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. Relations for uniformly accelerated motion (graphical treatment).	
		Chapter–4: Motion in a Plane	
		Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by areal number; addition and subtraction of vectors, Unit vector; resolution of avector in a plane, rectangular components, Scalar and Vector product of vectors. Motion in a plane, cases of uniform velocity and uniform acceleration- projectile motion, uniform circular motion.	

3	Unit-III	Laws of Motion	
		Chapter–5: Laws of Motion	
		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, rollingfriction, lubrication. Dynamics of uniform circular motion: Centripetal force, examples of circularmotion (vehicle on a level circular road, vehicle on a banked road).	
4	Unit - IV	Work, Energy and Power	
		Chapter–6: Work, Energy and 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 and inelastic collisions in one and two dimensions.	
5	Unit - V	Motion of System of Particles and Rigid Body Chapter–7: System of Particles and Rotational Motion 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 auniform rod. Moment of a force, torque, angular momentum, law of conservationof angular momentum and its applications. Equilibrium of rigid bodies, rigid body rotation and equations of rotationalmotion, comparison of linear and rotational motions. Moment of inertia, radius of gyration, values of moments of inertia for simplegeometrical objects (no derivation).	17
6	Unit VI	Gravitation	
		Chapter–8: Gravitation Kepler's laws of planetary motion, 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.	

7	Unit VII	 Properties of Bulk Matter Chapter-9: Mechanical Properties of Solids Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulkmodulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy. Chapter-10: Mechanical Properties of Fluids Pressure due to a fluid column; Pascal's law and its applications (hydrauliclift and hydraulic brakes), effect of gravity on fluid pressure. Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, criticalvelocity, 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. Chapter-11: Thermal Properties of Matter Heat, temperature, thermal expansion; 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 . 	20
8	Unit VIII	Thermodynamics Chapter–12: Thermodynamics Thermal equilibrium and definition of temperature, zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics: gaseous state of matter, change of condition. of gaseous state -isothermal, adiabatic, reversible, irreversible, and cyclic processes.	
9	Unit IX	Behavior of Perfect Gases and Kinetic Theory of Gases Chapter–13: Kinetic Theory 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	

			TOTAL MARKS= 70
		Wave motion: Transverse and longitudinal waves, 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.	
		Chapter–14: 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; oscillationsof a loaded spring- restoring force and force constant; energy in S.H.M. Kinetic and potential energies; simple pendulum derivation of expression for itstime period. Chapter–15: Waves	10
10	Unit X	Oscillations and Waves	
		(statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number.	

Note: There is a discrepancy between the chapter numbering in the CBSE prescribed syllabus and the new edition of the NCERT book for the 2024-25 session. It is suggested that the subject teachers must adhere to the chapter names and corresponding weightages as mentioned in the CBSE syllabus of year 2024-25 also make students aware about this already existing discrepancy.

FOR CLASS 11:

THEORY (Subject Specific as per CBSE): 80 / 70 / 60 / 30 marks INTERNAL ASSESSMENT (Subject Specific as per CBSE) (Practical/Project Work/Viva): 20 / 30 / 40 / 70 marks



COMMON ANNUAL EXAMINATION (2024-2025)

SYLLABUS

CLASS:XI SUBJECT: MATHEMATICS

TEXTBOOKS:

1. Mathematics: Textbooks for class XI-NCERT Publication.

2. Mathematics: Exemplar problems for class XI-NCERT Publication.

S.NO	UNIT	CHAPTER /TOPIC&SUBTOPICS	Weightage
	SETS & FUNCTIONS	 1. 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. 2. RELATION AND 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 (up to R × R × 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. 3. 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. Domain and range of trigonometric functions and their graphs. Expressing sin (x±y) and cos (wub in terms of firms, firm, conv, & conv, & conv, dut boir simple 	23
		(x±y) in terms of sinx, siny, cosx & cosy and their simple applications.Identities related to tan(x±y),cot(x±y) , sinα±sinβ , cosα+cosβ , sin2x, cos2x, tan2 x, sin3x, cos3x and tan3x.	

2	ALGEBRA	 COMPLEX NUMBERS &QUADRATIC EQUATIONS Need for complex numbers, especially/-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 <i>n</i>. (n!) Permutations and combinations, derivation of Formulae for P(n,r)and C(n,r)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 <i>n</i> terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation betweenA.M. and G.M 	25
3	COORDINATE GEOMETRY	 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. 	12
4	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 relates it to scope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric functions. 	08

5	STATISTICS AND PROBABILTY	 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. 	12
			TOTAL MARKS= 80



COMMON ANNUAL EXAMINATION (2024-2025)

SYLLABUS

CLASS: XI

SUBJECT: PHYSICAL EDUCATION

TEXTBOOKS:

1.Big Think Publications

2.Physical Education, CBSE

S.NO.	UNIT/CHAPTER /TOPIC	SUBTOPICS	WEIGHTAGE(MARKS) ALLOTTED
1.	Unit -1(Changing Trends and Career in Physical Education)	 Concept, Aims & Objectives of Physical Education Development of Physical Education in India Post Independence Changing Trends in Sports- playing surface, wearable gear and sports equipment, technological advancements Career options in Physical Education Khelo-India Program and Fit - India Program 	04 + 04b*
2.	Unit -2(Olympic Value Education)	 Olympism - Concept and Olympics Values (Excellence, Friendship & Respect) Olympic Value Education - Joy of Effort, Fair Play, Respect for Others, Pursuit of Excellence, Balance Among Body, Will & Mind Ancient and Modern Olympics Olympics - Symbols, Motto, Flag, Oath, and Anthem Olympic Movement Structure - IOC, NOC, IFS, Other members 	05
3.	Unit-3(Yoga)	 Meaning and importance of Yoga Introduction to Astanga Yoga Yogic Kriyas (Shat Karma) Pranayama and its types Active Lifestyle and stress management through Yoga 	06+01b*

4.	Unit-4(Physical Education and Sports for CWSN)	 Concept of Disability and Disorder Types of Disability, its causes & nature (Intellectual disability, Physical disability). Disability Etiquette Aim and objectives of Adaptive Physical Education. Role of various professionals for children with special needs (Counselor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist, and Special Educator) 	04 + 03b*
5.	Unit-5(Physical Fitness and Wellness)	 Meaning & importance of Wellness, Health, and Physical Fitness Components/Dimensions of Wellness, Health, and Physical Fitness Traditional Sports & Regional Games for promoting wellness Leadership through Physical Activity and Sports Introduction to First Aid - PRICE 	05
6.	Unit -6(Test, Measurement & Evaluation)	 Define Test, Measurements and Evaluation Importance of Test, Measurements and Evaluation in Sports Calculation of BMI, Waist - Hip Ratio, Skin fold measurement (3-site) Somato Types (Endomorphy, Mesomorphy & Ectomorphy) Measurements of health-related fitness 	08
7.	Unit-7(Fundamentals of Anatomy and Physiology in Sports)	 Definition and importance of Anatomy and Physiology in Exercise and Sports. Functions of Skeletal System, Classification of Bones, and Types of Joints. Properties and Functions of Muscles Structure and Functions of Circulatory System and Heart Structure and Functions of Respiratory System 	08

8.	Unit-8(Fundamentals Of Kinesiology And Biomechanics in Sports)	 Definition and Importance of Kinesiology and Biomechanics in Sports. Principles of Biomechanics Kinetics and Kinematics in Sports Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation Axis and Planes - Concept and its application in body movements 	04+04b*
9.	UNIT-9(Psychology and Sports)	 Definition and Importance of Psychology in Physical Education & Sports . Developmental Characteristics at different stages of Development. Adolescent Problem & Their Management Team Cohesion and Sports Introduction to Psychological Attributes Attention , Resilience, Mental Toughness. 	07
10.	UNIT-10(Training & Doping in Sports)	 Concept and Principles of sports training Training load:Overload, Adaptation and Recovery Warming up & Limbering Down-Types, Method and Importance Concept of Skill, Technique, Tactics & Strategies Concept of Doping and it's Disadvantages 	07
			TOTAL MARKS= 70 Marks

Note: b* are the Concept Based Questions like Tactile diagram/Data interpretation/Case base study for visually Impaired Child.

THEORY (Subject Specific as per CBSE): 70 marks

INTERNAL ASSESSMENT (Subject Specific as per CBSE) (Practical/Project Work/Viva): 30 marks



COMMON ANNUAL EXAMINATION (2024-2025)

SYLLABUS

CLASS: XI

SUBJECT: PSYCHOLOGY

TEXTBOOKS:

1. PSYCHOLOGY, TEXTBOOK FOR CLASS XI; NCERT

S.NO.	UNIT/CHAPTER /TOPIC	SUBTOPICS	WEIGHTAGE
1	What is Psychology?	 Introduction What is Psychology? Psychology as a Discipline Psychology as a Natural Science Psychology as a Social Science Understanding Mind and Behaviour Popular Notions about the Discipline of Psychology Evolution of Psychology Development of Psychology in India Branches of Psychology Psychology and Other Disciplines Psychology in Everyday Life 	11
2	Methods of Enquiry in Psychology	 Introduction Goals of Psychological Enquiry Steps in Conducting Scientific Research Alternative Paradigms of Research Nature of Psychological Data Some Important Methods in Psychology Observational Method Experimental Method Correlational Research Survey Research Psychological Testing Case Study Analysis of Data Quantitative Method Qualitative Method Limitations of Psychological Enquiry 	13
3	Human Development	 Introduction Meaning of Development Life-Span Perspective on Development Factors Influencing Development 	11

		 4. Context of Development 5. Overview of Developmental Stages Prenatal Stage Infancy Childhood Challenges of Adolescence Adulthood and Old Age 	
4	Sensory, Attentional and Perceptual Processes	 Introduction Knowing the world Nature and varieties of Stimulus Sense Modalities Functional limitation of sense organs Attentional Processes Selective Attention Sustained Attention Perceptual Processes Processing Approaches in Perception The Perceiver Principles of Perceptual Organisation Perception of Space, Depth and Distance Monocular Cues and Binocular Cues Perceptual Constancies Illusions Socio-Cultural Influences on Perception 	8
5	Learning	 Introduction Nature of Learning Paradigms of Learning Classical Conditioning Determinants of Classical Conditioning Determinants of Operant Conditioning Determinants of Operant Conditioning Key Learning Processes Observational Learning Cognitive Learning Verbal Learning Skill Learning ID.Factors Facilitating Learning Detarning Disabilities 	9
6	Human Memory	 Introduction Nature of memory Information Processing Approach: The Stage Model Memory Systems: Sensory, Short-term and Long-term Memories Levels of Processing Types of Long-term Memory 	8

		 Declarative and Procedural; Episodic and Semantic 7. Nature and Causes of Forgetting Forgetting due to Trace Decay, Interference and Retrieval Failure 8. Enhancing Memory Mnemonics using Images and Organisation 	
7	Thinking	 Introduction Nature of Thinking Building Blocks of Thought The Processes of Thinking Problem Solving Reasoning Decision-making Nature and Process of Creative Thinking Nature of Creative Thinking Process of Creative Thinking Thought and Language Development of Language and Language Use 	5
8	Motivation and Emotion	 Introduction Nature of Motivation Types of Motives Biological Motives Psychosocial Motives Maslow's Hierarchy of Needs Nature of Emotions Expression of Emotions Culture and Emotional Expression Culture and Emotional Labelling Managing Negative Emotions Enhancing Positive Emotions 	5
			TOTAL MARKS= 70

<u>FOR CLASS 11:</u> THEORY (As per CBSE): 70 marks INTERNAL ASSESSMENT (Practical/Project Work/Viva): 30 marks



COMMON ANNUAL EXAMINATION (2024-2025)

SYLLABUS

SUBJECT: Business studies (054)

TEXTBOOKS:

1. NCERT Business studies

S.NO.	UNIT/CHAPTER /TOPIC	SUBTOPICS	WEIGHTAGE
1.	Nature and Purpose of Business	 History of Trade and Commerce in India Business - meaning and characteristics Concept of Economic and Non-Economic activities Concept of business, profession and employment and Differentiation between business, profession and employment. Objectives of business Role of profit in business. Classification of business activities-Industry and commerce Industry- Types Commerce- Trade and auxiliaries to trade Concept , nature and causes of business risk 	16
2.	Forms of Business Organisations	 Sole Proprietorship Partnership Hindu Undivided Family Business Cooperative Societies Company - Public, Private and one person company Formation of company Choice of form of business organization 	
3.	Public, Private and Global Enterprises	 Public sector and private sector enterprises Concept Forms of public sector enterprises: Departmental Undertakings, Statutory Corporations and Government Company Global Enterprises - Features Joint venture Public private partnership - concept 	14
4.	Business Services	 Business services - meaning and types. Banking: Types of bank accounts 	

CLASS: 11th

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		 Banking services with particular reference to Bank Draft, Bank Overdraft, Cash credit E-Banking: meaning, types of digital payments Insurance - Principles. Types - life, health, fire and marine insurance - concept Postal and telecom services 	
5.	Emerging Modes of Business	 E - business: concept, scope and benefits Distinguish e-business from traditional business. 	10
6.	Social Responsibility of Business and Business Ethics	 Concept of social responsibility Case for social responsibility Social responsibility towards different interest groups. Role of business in environment protection Business Ethics - Concept and Elements 	
7.	Sources of Business Finance	 Meaning, nature and importance of business finance Meaning of owners' funds and borrowed funds Owners' funds- equity shares, preferences share, retained earnings Borrowed funds: debentures and bonds, loan from financial institution and commercial banks, public deposits, trade credit, Inter Corporate Deposits (ICD) Distinguish between owners' funds and borrowed funds. 	20
8.	Small Business	 Small scale enterprise as defined by MSMED Act 2006 (Micro, Small and Medium Enterprise Development Act) Role of small business in India with special reference to rural areas Government schemes and agencies for small scale industries: National Small Industries Corporation (NSIC) and District Industrial Centre (DIC) with special reference to rural, backward areas Entrepreneurship Development (ED): Concept, Characteristics and Need. Process of Entrepreneurship Development: Start-up India Scheme, ways to fund start-up. Intellectual Property Rights and Entrepreneurship 	
9.	Internal Trade	 Internal trade - meaning and types services rendered by a wholesaler and a retailer 	20

		 Types of retail-trade-Itinerant and small scale fixed shops retailers (Both small and large) Large scale retailers-Departmental stores, chain stores - concept Mail order business. GST (Goods and Services Tax): Concept and key-features 	
10.	International Business	 International trade: concept and benefits Export trade - Meaning , objectives and procedure Import Trade - Meaning, objectives and procedure Documents involved in International Trade; indent, letter of credit, shipping order, shipping bills, mate's receipt (DA/DP) World Trade Organization (WTO) meaning and objectives 	
			TOTAL MARKS= 80



SYLLABUS (2024 - 2025)

CLASS: XI

SUBJECT: COMPUTER SCIENCE (083)

TEXTBOOKS:

1. COMPUTER SCIENCE - XI (NCERT)

2. COMPUTER SCIENCE - XI (PREETI ARORA)

SESSION	UNIT/CHAPTER /TOPIC	SUBTOPICS	WEIGHTAGE
2024 - 25	Computer System	Introduction to Computer System, Evolution of Computer, Computer Memory, Data Transfer between Memory and CPU, Microprocessors, Data and Information, Software, Operating System	5 Marks
	Encoding Schemes and Number System	Number System, Conversion between Number Systems	5 Marks
	Getting Started with Python	Familiarization with the basics of Python programming: Introduction to Python, Features of Python, executing program, execution modes: interactive mode and script mode, Python character set, Python tokens(keyword, identifier, literal, operator, punctuator), variables, concept of l-value and r-value, use of comments Knowledge of data types: Number(integer, floating point,complex), boolean, sequence(string, list, tuple), None, Mapping(dictionary), mutable and immutable data types. Operators: arithmetic operators, relational operators, logical operators, assignment operators, augmented assignment operators, identity operators (is, is not), membership operators (in not in) Expressions, statement, type conversion, and input/output: precedence of operators, expression, evaluation of an expression, type- conversion (explicit and implicit conversion), accepting data as input from the console and displaying output. Errors- syntax errors, logical errors, and run- time errors	6 Marks

	Flow of Control	Introduction, use of indentation, sequential flow, conditional and iterative flow Conditional statements: if, if-else, if-elif-else Iterative Statement: for loop, range(), while loop, flowcharts, break and continue statements, nested loops	8 Marks
2	Strings	String operations (concatenation, repetition, membership and slicing), traversing a string using loops, built-in functions/methods-len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(), startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(),lstrip(), rstrip(), strip(), replace(), join(), partition(), split()	8 Marks
	Lists	Lists: introduction, indexing, list operations (concatenation, repetition, membership and slicing), traversing a list using loops, built-in functions/methods-len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum(); nested lists	8 Marks
	Tuples and Dictionaries	Tuples: introduction, indexing, tuple operations (concatenation, repetition, membership and slicing); built-in functions/methods - len(), tuple(), count(), index(), sorted(), min(), max(), sum(); tuple assignment, nested tuple; suggested programs: finding the minimum, maximum, mean of values stored in a tuple; linear search on a tuple of numbers, counting the frequency of elements in a tuple. Dictionary: introduction, accessing items in a dictionary using keys, mutability of a dictionary (adding a new term, modifying an existing item), traversing a dictionary, built-in functions/methods - len(), dict(), keys(), values(), items(), get(), update(), del, clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), sorted();	10 Marks
	Introduction to Python modules:	Importing module using 'import ' and using from statement, importing math module (pi, e, sqrt(), ceil(), floor(), pow(), fabs(), sin(), cos(), tan()); random module (random(), randint(), randrange()), statistics module (mean(), median(), mode()).	5 Marks
	Society, Law and Ethics	Digital Footprints, Digital Society and Netizen: net etiquettes, communication etiquettes, social media etiquettes, Data Protection:	15 Marks

	Intellectual property rights (copyright, patent, trademark), violation of IPR (plagiarism, copyright infringement, trademark infringement), open source software and licensing (Creative Commons, GPL and Apache), Cyber Crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, cyber trolls, cyber bullying, Cyber safety: safely browsing the web, identity protection, confidentiality, Malware: viruses, trojans, adware, E-waste management: proper disposal of used electronic gadgets., Information Technology Act (IT Act), Technology and society: Gender and disability issues while teaching and using computers	
TOTAL MARKS		70 Marks



COMMON ANNUAL EXAMINATION (2024-2025)

SYLLABUS

CLASS: XI

SUBJECT: ARTIFICIAL INTELLIGENCE

TEXTBOOKS:

1. CBSE STUDENT HANDBOOK

S.NO.	PART	UNIT/ CHAPTER/ TOPIC	WEIGHTAGE
1.	PART A-EMPLOYABILITY	Unit 1: Communication Skills - III	2
2.	SKILLS	Unit 2: Self-Management Skills - III	2
3.		Unit 3: ICT Skills - III	2
4.		Unit 4: Entrepreneurial Skills - III	2
5.		Unit 5: Green Skills - III	2
6.	PART B - SUBJECT SPECIFIC SKILLS	Unit 1: Introduction: Artificial Intelligence for Everyone	4
7.		Unlocking your Future in AI	5
8.		Python Programming	5
9.		Introduction to Capstone Project	5
10.		Data Literacy - Data Collection to Data Analysis	6
11.		Machine Learning Algorithms	6
12.		Leveraging Linguistics and Computer Science	5
13.		AI Ethics and Values	4
		TOTAL	50
14.	PART C - PRACTICAL WORK / PROJECT WORK	IBM Skills Build Certification/any other industry certification	5
15.		Capstone Project	12
16.		Bootcamps/ Internship/other startups	7
17.		Practical File	10
18.		Written Exam (based on practical file)	10
19.		Viva Voce (based on practical file)	6
		TOTAL	50
GRAN	GRAND TOTAL		



COMMON ANNUAL EXAMINATION (2024-2025)

SYLLABUS

CLASS: XI

SUBJECT: PAINTING

TEXTBOOKS: HISTORY OF ART BY DEVENDER KUMARI

S.NO.	PART	UNIT/ CHAPTER/ TOPIC	WEIGHTAGE
1.		 Unit 1: Pre-Historic rock paintings and art of Indus Valley Pre-Historic Rock-Paintings Introduction Introduction Study and appreciation of following: Sculptures and Terra cottas Study and appreciation of following Seal 	10
2. 3.		 Unit 2: Buddhist, Jain and Hindu Art General Introduction to Art during Mauryan, Shunga, Kushana (Gandhara and Mathura styles) and Gupta period Study and appreciation of following Sculptures: Lion Capital, Chauri Bearer, Bodhisattva Head, Kushan Period etc. Introduction to Ajanta Location Unit 3: Temple Sculptures, Bronzes and Artistic aspects of Indo-Islamic architecture 	10
		 Artistic aspects of Indian Temple sculpture (6th Century A.D. to 13thCentury A.D.) Indian Bronzes Sculptures Artistic aspects of the indo-Islamic architecture TOTAL	30
17.	PORTFOLIO	 Practical File STILL LIFE PAINTING COMPOSITION BASED ON DAILY LIFE WITH WATER/POSTER COLOUR 	70
		TOTAL	70
GRAN	D TOTAL		100