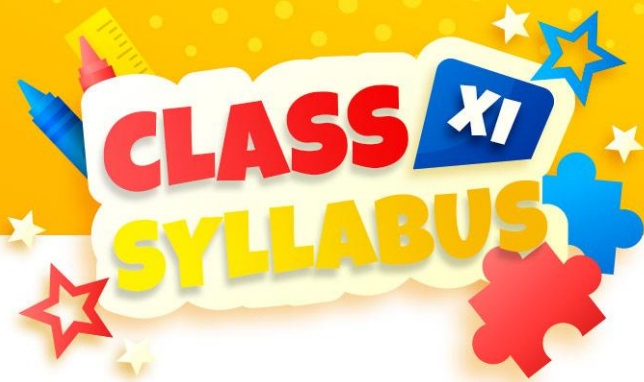




**RUBY PARK  
PUBLIC SCHOOL**



# **CLASS XI** **SYLLABUS**

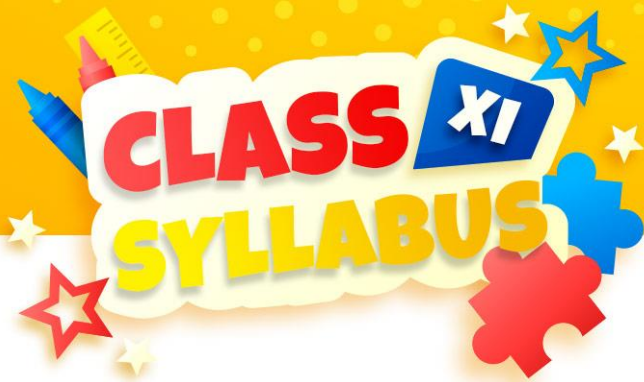


**Session: 2022-23**

**Subject:- ENGLISH**

MONTH	UNIT	READING	WRITING SKILLS	GRAMMAR	LITERATURE
April & May	1	Comprehension from factual and discursive passages	Poster Making	Do as directed	The Portrait of a Lady
				Agreement of subject and verb	
	2	Listening	Note making and Summary writing from given	Tenses	The Summer of the Beautiful White Horse (Snapshots)
		Speaking		Tenses and usage/gaps filling exercise	
					Determiners/ prepositions
	June	UT1			
July	3	Vocabulary	Speech / Debate	Re-ordering of sentences	We're Not Afraid to Die Discovering Tut The Laburnum Top (poem)
		Identifying words for			
August		Listening / Speaking	Classified Advertisement	Integrated Exercises	
	5	Summarizing	Letter writing	Error Correction	The Address
			Rules of formal letter writing		
			Official / Business Letters		
		Conversation Skills	Letter to the Principal	Phrases Adjective,	The Voice of the Rain (Poem)
			Letter to the Editor		
September	REVISION AND BLOCK TEST I				
October	6	Subtitling	Report Writing for a magazine	Clauses	Father to Son (Poem)

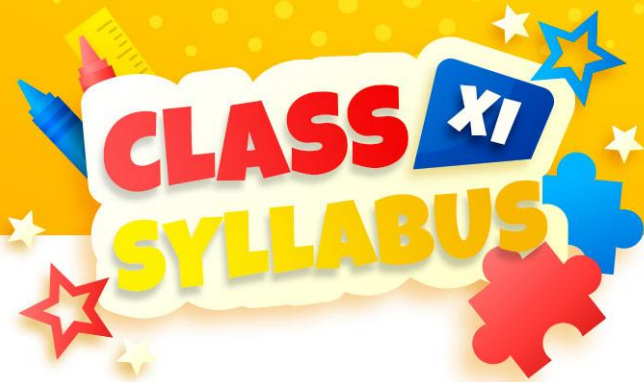




November	7	ConversationsSkills	Poster	Exercises on identification of clauses	Childhood (Poem)
			Article Writing		Mother'sDay
		Listening	Advertisement		Birth
		Comprehension			
December	8	Listening/Speaking	Writing a CV	Modals Using the correct verb in	The Adventure
					Silk Road
January	UT2				
January	9	Note Making	Speech/ Debate	Editing/cloze passage	The Tale of Melon City (Poem)
			Summarizing		
	REVISION				
February	BLOCK TEST II				





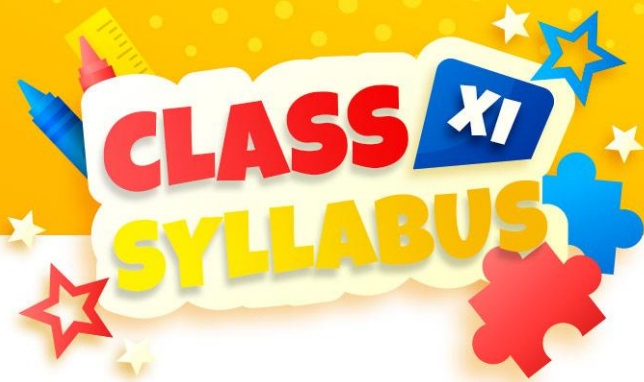


**Session: 2022-23**

**Subject:- PHYSICS**

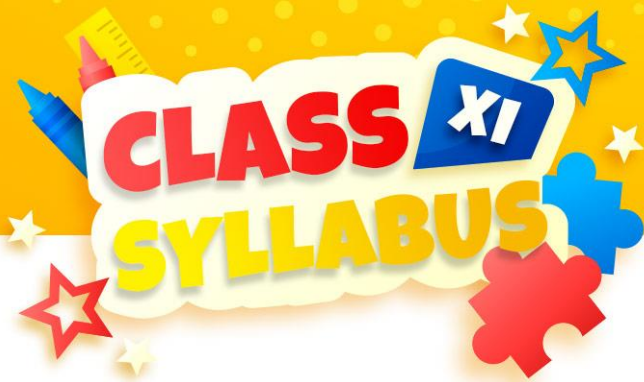
MONTH	CHAPTER	TOPICS	SUB TOPICS
April & May	I & II	Physical World, Measurement and units	Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. ; significant figures. Dimensions of physical quantities, dimensional analysis and its applications
		Calculus	Elementary Differential and integral calculus for describing motion
June & July	III	Motion in a Straightline	Frame of reference. Motion in a straight line: Uniform and non-uniform motion, instantaneous velocity.
			Uniformly accelerated motion, velocity-time, position-time graphs, relations for uniformly accelerated motion (graphical treatment).
	IV	Motion in a Plane	Scalar and vector quantities: Position and displacement vectors, general vectors and notation, 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. Cases of uniform velocity and uniform acceleration- projectile motion. Uniform circular motion
July	V	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, rolling friction. lubrication
			Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on level circular road, vehicle on banked road).
UT I			





July & August	VI	Work, Energy and	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
		Power	forces: ; non- conservative forces, Motion in a vertical circle, elastic and inelastic collisions in one and two dimensions.
August	VII	System of Particles(1)	Centre of mass of a two-particle system, momentum conversation and centre of mass motion. Centre of mass of a rigid body; centre of mass of uniform rod.
August	VII	System of Particles and Rotational Motion (2)	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)
September	Block Test 1		
	VIII	Gravitation	Keplar's laws of planetary motion. The universal law of gravitation.
			Acceleration due to gravity and its variation with altitude and depth.
			Gravitational potential energy; gravitational potential. Escape velocity. Orbital velocity of a satellite.
October	IX	Mechanical Properties of Solid	Elastic behavior, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear, modulus of rigidity.(qualitative idea only);Poisson's Ratio;Elastic Energy
October	X	Mechanical Properties of Fluid	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. Bernoulli's theorem and its applications. Critical Velocity





			Surface energy and surface tension, angle of contact, application of surface tension ideas to drops, bubbles and capillary rise. Excess of pressure across a curved surface.
		Thermal Properties	Heat, temperature, thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat - capacity calorimetry; change of state - latent heat. Heat transfer-
November	XI	of matter	conduction, convection and radiation, thermal conductivity, Qualitative ideas of blackbody radiation Wien Displacement Law, Stefan's Law
December	XIII	Kinetic Theory Of Gas	Equation of state of 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 equipartition of energy (statement only) and application to specific heats of gases; concept of mean free path, Avogadro's number
	XII	Thermodynamics	Thermal equilibrium and definition of temperature (zeroth law of thermodynamics). Heat, work and internal energy. First law of thermodynamics. Second law of thermodynamics: reversible and irreversible processes. Gaseous state of matter; change of condition of gaseous state. Isothermal, adiabatic, reversible, irreversible, cyclic processes
UT III			
January	XIV	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 equation; 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;.
	XV	Waves	Wave motion. Longitudinal and transverse 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
Revision & Block Test - 2			





**Session: 2022-23**

**Subject:- CHEMISTRY**

MONTH	UNIT NO.	CHAPTER	CONTENTS
April & May	1	Some Basic Concepts of Chemistry	<ul style="list-style-type: none"> <li>• Importance and scope of chemistry, nature of matter,</li> <li>• laws of chemical combination, Nature of matter, Dalton's atomic theory: concept of elements, atoms and molecules. Atomic and molecular masses               <ul style="list-style-type: none"> <li>• mole concept and molar mass</li> </ul> </li> <li>• percentage composition, empirical and molecular formula</li> <li>• chemical reactions, stoichiometry and calculations based on stoichiometry reactions.</li> </ul>
May & June	2	Structure of Atom	<ul style="list-style-type: none"> <li>• Discovery of electrons, proton, neutron, atomic number, isotopes, isobars</li> <li>• Thomson's model and its limitations. Rutherford's model and its limitations,               <ul style="list-style-type: none"> <li>• Bohr's model and its limitations.</li> <li>• concept of shells and subshells</li> </ul> </li> <li>• dual nature of matter and light, de Broglie's relationship               <ul style="list-style-type: none"> <li>• Heisenberg uncertainty principle</li> </ul> </li> <li>• concept of orbitals, quantum numbers, shapes of s, p and d orbitals</li> <li>• rules for filling electrons in orbitals - Aufbau principle, Pauli's exclusion principle and Hund's rule.</li> <li>• electronic configuration of atoms, stability of half-filled and completely filled orbitals.</li> </ul>
U T I			





# CLASS XI SYLLABUS



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July	3	Classification of Elements and Periodicity in Properties	<ul style="list-style-type: none"> <li>• Significance of classification, brief history of development of periodic table.</li> <li>• Modern periodic law and the present form of periodic table</li> <li>• Periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency.</li> <li>• Nomenclature of elements with atomic number greater than 100</li> </ul>
August		Chemical Bonding and Molecular structure	<ul style="list-style-type: none"> <li>• Valence electrons, ionic bond, covalent bond, bond parameters, Lewis structure</li> <li>• polar character of covalent bond, covalent character of ionic bond</li> <li>• valence bond theory, resonance</li> <li>• geometry of covalent molecules, VSEPR theory</li> <li>• concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules</li> <li>• molecular orbital theory of homonuclear diatomic molecules(qualitative idea only), hydrogen bond.”</li> </ul>
		Chemical Thermodynamics	<ul style="list-style-type: none"> <li>• Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions.</li> <li>• First law of thermodynamics -internal energy and enthalpy, heat capacity and specific heat, measurement of <math>\Delta U</math> and <math>\Delta H</math>.</li> <li>• Hess’s law of constant heat summation, enthalpy of bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution.</li> <li>• Second law of Thermodynamics (brief introduction). Introduction of entropy as a state function, Gibb’s energy change for spontaneous and non- spontaneous processes, criteria for equilibrium.</li> <li>• Third law of thermodynamics (brief introduction).</li> </ul>
September	Revision and BT-1		
October		Equilibrium	Equilibrium in physical and chemical processes, dynamic nature of equilibrium • law of mass action, equilibrium constant • factors affecting equilibrium- LeChatelier’s principle,





# CLASS XI SYLLABUS



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	6	Equilibrium	<ul style="list-style-type: none"> <li>• ionic equilibrium- ionization of acids and bases, strong and weak electrolytes, degree of ionization, ionization of poly basic acids, acid strength, concept of pH</li> <li>• Henderson Equation, hydrolysis of salts (elementary idea), buffer solution, solubility product, common ion effect (with illustrative examples).</li> </ul>
November	7	Organic Chemistry- Some Basic Principles and Techniques.	<ul style="list-style-type: none"> <li>• General introduction, methods of purification, qualitative and quantitative analysis, classification and IUPAC nomenclature of organic compounds.</li> </ul>
December	7	Organic Chemistry - Some Basic Principles and Techniques. (continued)	<ul style="list-style-type: none"> <li>• Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyper conjugation.</li> <li>• Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions.</li> </ul>
UT 2			



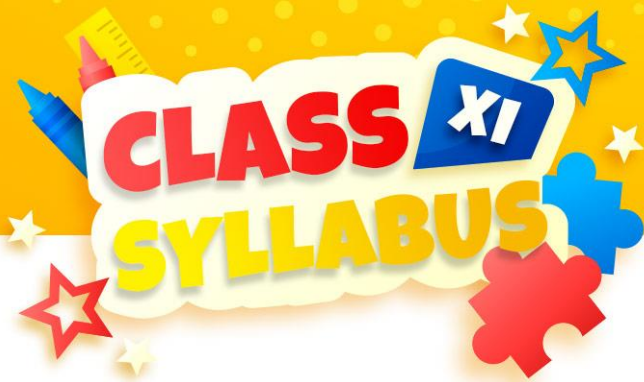
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January	8	Hydrocarbons	<ul style="list-style-type: none"> <li>Alkanes Nomenclature, isomerism, conformation (ethane only),</li> <li>physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis.</li> <li>Alkenes - Nomenclature, structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparation</li> <li>chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markownikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition.</li> <li>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.</li> <li>Aromatic Hydrocarbons: Introduction, IUPAC nomenclature, benzene: resonance, aromaticity,</li> <li>chemical properties: mechanism of electrophilic substitution. Nitration, sulphonation, halogenation, Friedel Craft's alkylation and acylation, directive influence of the functional group in monosubstituted benzene. Carcinogenicity and toxicity</li> </ul>
	9	Redox Reactions	Concept of Oxidation and reduction, redox reactions, oxidation number, balancing redox reactions, applications of redox reactions.
February	Revision & Block Test -2		





**Session: 2022-23**

**Subject:- BIOLOGY**

MONTH	UNIT	TOPIC
APRIL	CELL: STRUCTURE AND FUNCTIONS	INTRODUCTION TO CLASS 11 (BRIDGE COURSE)
		CELL: THE UNIT OF LIFE
	DIVERSITY IN THE LIVING WORLD	LIVING WORLD
MAY & JUNE	DIVERSITY IN THE LIVING WORLD	BIOLOGICAL CLASSIFICATION
		PLANT KINGDOM
		ANIMAL KINGDOM
	CELL: STRUCTURE AND FUNCTIONS	CELL CYCLE AND CELL DIVISION
UNIT TEST-I		
JULY & AUGUST	CELL: STRUCTURE AND FUNCTIONS	BIOMOLECULES
	STRUCTURAL ORGANISATION IN PLANTS AND ANIMALS	MORPHOLOGY OF FLOWERING PLANTS
		ANATOMY OF FLOWERING PLANTS
SEPTEMBER	STRUCTURAL ORGANISATIONS IN PLANTS AND ANIMALS	STRUCTURAL ORGANISATION OF ANIMALS
OCTOBER		
NOVEMBER	PLANT PHYSIOLOGY	PHOTOSYNTHESIS IN HIGHER PLANTS
		RESPIRATION IN HIGHER PLANTS- INTRODUCTION
DECEMBER	PLANT PHYSIOLOGY	RESPIRATION IN HIGHER PLANTS- CONTINUED
		PLANT GROWTH AND DEVELOPMENT
	HUMAN PHYSIOLOGY	BREATHING AND EXCHANGE OF GASES
	HUMAN PHYSIOLOGY	BODY FLUIDS AND CIRCULATION
		EXCRETORY PRODUCTS AND THEIR ELIMINATION

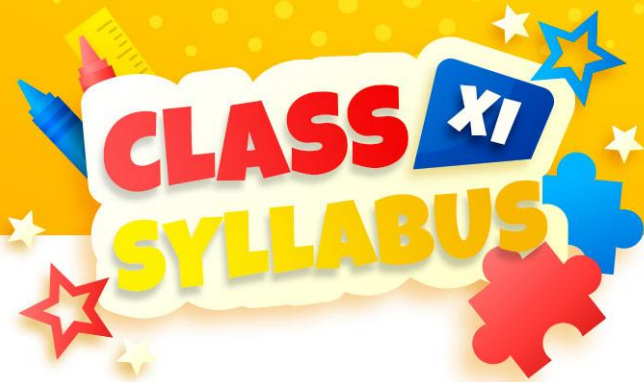




UNIT TEST- II		
JANUARY	HUMAN PHYSIOLOGY	LOCOMOTION AND MOVEMENT
		(INTRODUCTION)
	HUMAN PHYSIOLOGY	LOCOMOTION AND MOVEMENT (TO BE CONTINUED)
		NEURAL CONTROL AND CO-ORDINATION
FEBRUARY	HUMAN PHYSIOLOGY	CHEMICAL CO-ORDINATION AND INTEGRATION
	REVISION	
	BLOCK TEST- II	





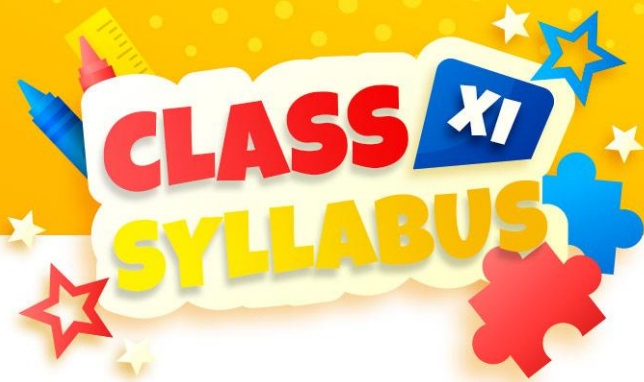


**Session: 2022-23**

**Subject:-MATHEMATICS**

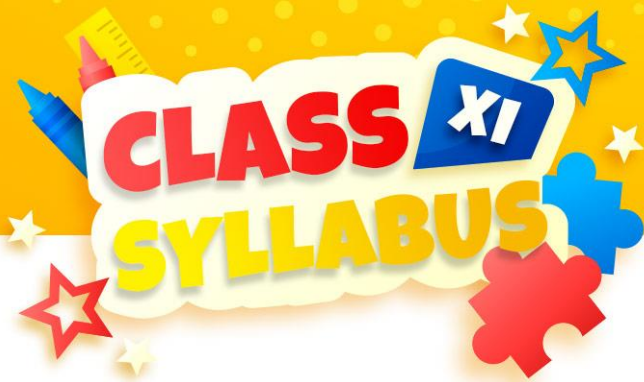
MONTH	TOPICS	SUB-TOPICS
April - May	Bridge course( Logarithm, Theory of Quadratic Equations )  Sets, Relations and Functions	Bridge course ( Logarithm , Theory of Quadratic equations)
		Sets , Types of Sets ,Subsets, Power Sets, Venn Diagram, Union ,Intersection and Difference of Sets, Algebra of Sets
		Cartesian Product, Relations, Domain and Range
		Functions , Types of different functions with graphs , Domain, Co-Domain and Range of functions
	Trigonometry	Measurement of Angles, Conversion between Degrees and Radians, Definition of Trigonometric Functions with the help of unit circle, Trigonometric Identities, Domain and Range of Trigonometric Functions
June - July		Compound Angles and Associated Angles
	UT 1	
	Trigonometry	Transformation of Sum and Product
		Multiple and Sub-Multiple Angles, Associated Trigonometric Graphs.
August	Complex Numbers and Quadratic Equations ( complex)	Properties, Geometrical presentation, Modulus, Argument, Solutions of Quadratic Equations
		Linear Inequalities and graph( Algebraic solutions of linear inequalities in one variable and representation on number line)
	Linear Inequalities	
	Sequence and Series	





	Equation of the Straight Line	
BT 1		
October November	Permutation and Combination	Counting Theory, Difference of Permutation and Combination -Related Sums
	Binomial Theorem	Binomial Theorem (proof) only for positive integral indices, nth term, Middle term, Pascal's Triangle
	Conic Sections (Circle, Parabola)	Conics as a Section of Cone, Equation of Circle(Standard form only), Related formulae and sums
		Equation of Parabola (Standard form only), Related formulae and sums
December	Ellipse, Hyperbola, 3-D Geometry, Probability	Equation of Ellipse (Standard form only), Related formula and sums
		Equation of Hyperbola(Standard form only), Related formula and sums
		3D- Geometry (Distance Formula)
		Probability
UT - 2		
	Statistics	Statistics (Mean, Median, Standard Deviation, Variance and Mean Deviation)
January	Limits, Differentiation	Idea of Limits, Formulae and Properties of Limits
		Differentiation- 1st. Principle And Properties,
		Differentiation using formulae.
	REVISION	
February	Annual Examination	





**Session: 2022-23**

**Subject:- COMPUTER SCIENCE**

MONTH	TOPIC	SUB-TOPIC
<b>April -May</b>	Introduction to ProblemSolving	Steps for problem solving (analysing the problem, developing an algorithm, coding, testing and debugging). representation of algorithms using flow chart and pseudo code, decomposition
	Computer System Overview	Basic Computer Organisation: Introduction to computer system, hardware, software, input device, output device, CPU, memory (primary, cache and secondary), units of memory (Bit, Byte, KB, MB, GB, TB, PB)
		Types of software: system software (operating systems, system utilities, device drivers), programming tools and language translators (assembler, compiler & interpreter), application software
		Operating system (OS): functions of operating system, OS user interface. Encoding schemes: ASCII, ISCII and UNICODE (UTF8, UTF32)
		Emerging trends: Cloud computing, cloud services (SaaS, IaaS, PaaS), blockchains, Artificial Intelligence (AI), Machine Learning (ML), Internet of Things (IoT)
<b>June/July</b>	<b>Data Representation</b>	Binary, Octal, Decimal and Hexadecimal number system; conversion between number systems.
	<b>Boolean Logic</b>	Boolean logic: NOT, AND, OR, NAND, NOR, XOR, truth table, De Morgan's laws and logic circuits
<b>Unit Test – I</b>		
	Getting Started with Python	Introduction to Python, features of Python, executing a simple "hello world" 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
	<b>Python Fundamentals</b>	Knowledge of data types: number (integer, floating point, complex), boolean, sequence (string, list, tuple), none, mapping (dictionary), mutable and immutable data types

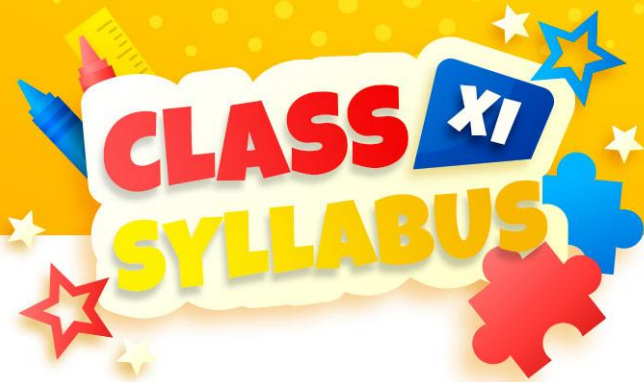




	Data Handling	arithmetic operators, relational operators, logical operators, assignment operator, augmented assignment operators, identity operators (is, is not), membership operators (in, not in)
		Expressions, statement, type conversion & input/output: precedence of operators, expression, evaluation of expression, python statement, type conversion (explicit & implicit conversion), accepting data as input from the console and displaying output.
	Conditional And Iterative Statements	Flow of control: introduction, use of indentation, sequential flow, conditional and iterative flow control
		Conditional statements: if, if-else, if-elif-else, flowcharts, simple programs: e. g.: absolute value, sort 3 numbers and divisibility of a number
		Iterative statements: for loop, range function, while loop, flowcharts, break and continue statements, nested loops, suggested programs: generating pattern, summation of series, finding the factorial of a positive number etc.
	String Manipulation	introduction, indexing, string operations (concatenation, repetition, membership & slicing), traversing a string using loops, built-in functions: len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(), startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(), lstrip(), rstrip(), strip(), replace(), join(), partition(), split()
September	<b>Block Test I</b>	
October	Debugging Programs	Errors: syntax errors, logical errors, runtime errors
	List Manipulation	introduction, indexing, list operations (concatenation, repetition, membership & slicing), traversing a list using loops, built-in functions: len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum(); nested lists, suggested programs: finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and counting the frequency of elements in a list
November	Tuples	introduction, indexing, tuple operations (concatenation, repetition, membership & slicing), built-in functions: 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

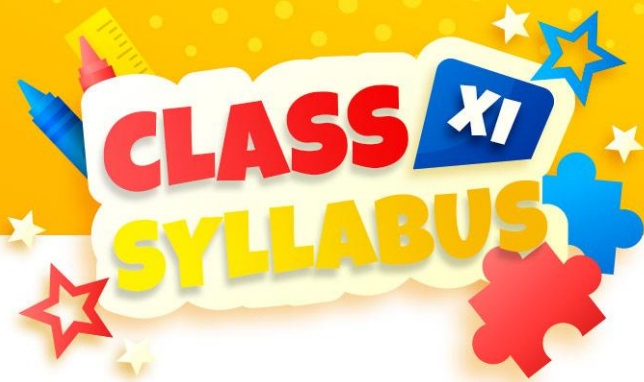






December	Dictionaries	introduction, accessing items in a dictionary using keys, mutability of dictionary (adding a new item, modifying an existing item), traversing a dictionary, built-in functions: len(), dict(), keys(), values(), items(), get(), update(), del(), clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), count(), sorted(), copy(); suggested programs : count the number of times a character appears in a given string using a dictionary, create a dictionary with names of employees, their salary and access them
	Introduction to Python modules	Importing module using 'import <module>' 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)
Unit Test – II		
January	Cyber Safety	Digital Footprints
		Digital society and Netizen: net etiquettes, communication etiquettes, social media etiquettes
		Data protection: Intellectual Property Right (copyright, patent, trademark), violation of IPR (plagiarism, copyright infringement, trademark infringement), open source softwares and licensing (Creative Commons, GPL and Apache)
		Cyber-crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, preventing cyber crime
		Cyber safety: safely browsing the web, identity protection, confidentiality, cyber trolls and bullying.
		Safely accessing web sites: malware, viruses, trojans, adware
		E-waste management: proper disposal of used electronic gadgets
		Indian Information Technology Act (IT Act)
		Technology & Society: Gender and disability issues while teaching and using computers
		Revision & Block Test – II



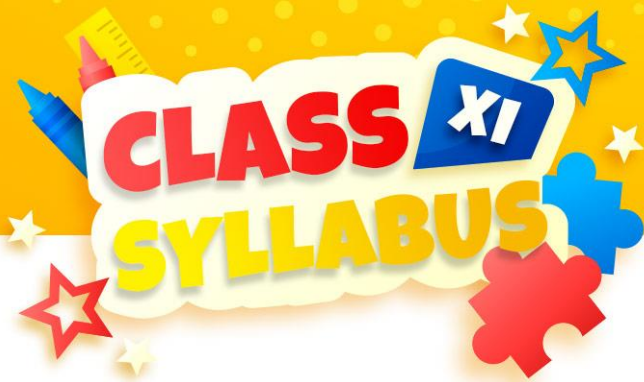


**Session: 2022-23**

**Subject:- ECONOMICS**

MONTH	UNIT	TOPIC	SUB TOPIC
<b>APRIL &amp; MAY</b>	Part B Unit 4	Microeconomics : 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.
	Part A Unit 1	Statistics: Introduction	What is Economics? Meaning, scope, functions and importance of statistics in Economics.
<b>JUNE</b>	Part B Unit 5	Microeconomics : 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. 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.
	Part A Unit 2	Statistics: 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. Organisation of Data: Meaning and types of variables; Frequency Distribution.
<b>Unit Test I</b>			





	Part A Unit 2	Statistics: Collection, Organisation and Presentation of data	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).
JULY	Part A Unit 3	Statistics: Tools and Interpretation	Arithmetic mean, median and mode.
	Part B Unit 6	Microeconomics: Producer behaviour and supply	Meaning of Production Function – Short-Run and Long-Run Total Product, Average Product and Marginal Product, Returns to a Factor, Law of variable proportion.
AUGUST	Part B Unit 6	Microeconomics : Producer behaviour and supply	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. Revenue - total, average and marginal revenue - meaning and their relationship.
SEPTEMBER	<b>REVISION AND BLOCKTEST</b>		
October & November	Part B Unit 6	Microeconomics: Producer behaviour and supply	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.
November		Correlation	Correlation: Meaning, correlation and causation, types and degrees of correlation, methods of measurement of correlation.  Rank correlation: Repeated rank
December	Part B Unit 7	Forms of Market and Price determination	Perfect competition - Features; Determination of market equilibrium and effects of shifts in demand and supply(Short run only). Simple Applications of Demand and Supply: Price ceiling, price floor
<b>Unit Test 2</b>			
January	Part A Unit 3	Statistics: Tools and Interpretation.	Introduction to Index Numbers: meaning, types, Wholesale price index, consumer price index and index of industrial production, uses of index numbers, inflation and index number, Simple Aggregative method.  REVISION
February	<b>Block Test 2</b>		





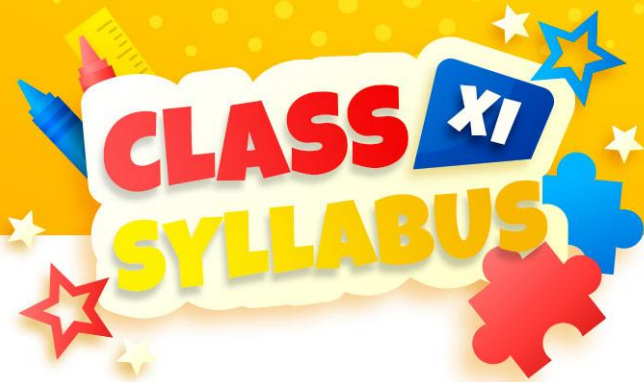
**Session: 2022-23**

**Subject:- ACCOUNTANCY**

MONTH	TOPIC	SUB TOPIC
April & May	Introduction to Accounting	Transactions-meaning features, types. Objective of accounting, accounting concepts and accounting principles, GST(excluding setting off GST)
May & June	Theory Base of Accounting	Accounting Terminology
	Accounting process	Accounting Equation, vouchers and source document
	Double entry system	Golden Rule, Debit & Credit, Classification of Journal (incl. GST)
<b>UNIT TEST I</b>		
July	Double entry system	Journalising(contd.), ledger posting and balancing of accounts
		Cash Book (single, double column) and petty cash book
August	Subsidiary Books and Trial balance (including Theory)	Purchase and sales day book, purchase return and sales return day book (excluding B/R and B/P day book) and Ledger posting
		Trial balance
	Trial balance and Rectification of Errors (including theory)	Trial balance with corrections and rectification of errors
	Bank reconciliation statement (including theory)	Bank reconciliation statement (Excluding amended cash book)
September	<b>Block Test I</b>	
	Rectification of errors	Rectification of errors detected before and after preparation of trial balance and preparation of suspense account
		Rectification (continued)

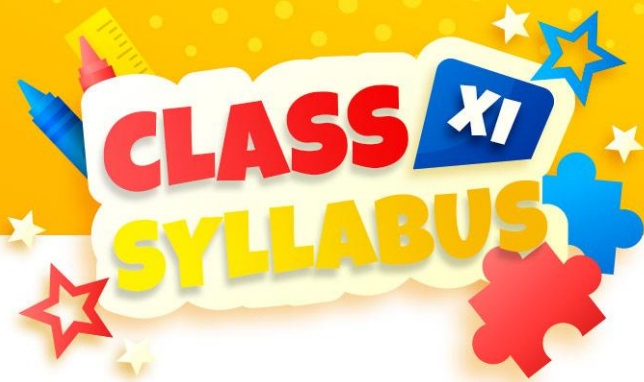






		Depreciation – Method , reason for charging depreciation. Straight line method only.
		Depreciation – written down value method, provision for depreciation and asset disposal A/c.
		Meaning and types of provision and reserves
		Final accounts –without adjustment
		Accounting treatment of reserves and provisions and representation in financial statements
		Final accounts – with adjustment
<b>January</b>	<b>UNIT TEST II</b>	
	Final accounts	Final accounts – with adjustment
	Incomplete records/ single entry	Features, reasons and limitations. Ascertainment of Profit/ Loss by statement of Affairs methods( excluding conversion method)
<b>February</b>	<b>Revision &amp; Block Test 2</b>	



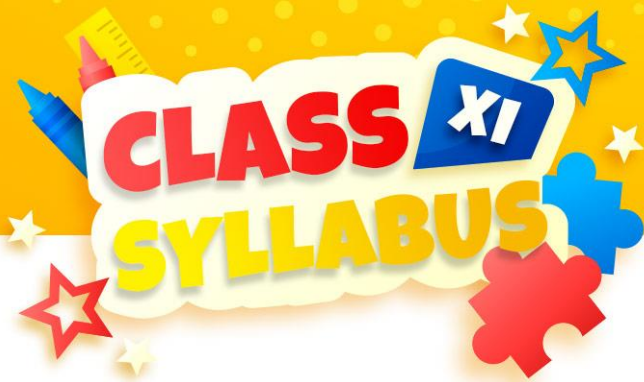


Session: 2023-24

**Subject:- BUSINESS STUDIES**

MONTH	TOPIC	SUB TOPIC
April & May	Evolution and Fundamentals of Business	History of commerce in India, Concept and Characteristics
		Differentiation between Business, Profession and Employment, Objectives of Business (Economic and Social), Role of Profit
		Classification of Business Activity (Industry and Commerce), Business Risk - Meaning, nature and causes and written work.
	Forms of Business Organisation	Sole Proprietorship and Joint Hindu Family Business
June	Forms of Business Organisation	Partnership: Features, Types, Merits, Demerits and Types of partners, minor as a partner, LLP , Cooperative Societies - Features, Types, Merits and Demerits
		Joint Stock Companies - Features, Merits and demerits, Formation of a company procedure and documents (including OPC)
		Starting a Business - basic Factors
UT I		
July	Public, Private and Global Enterprise	Differentiation between Public Sector and Private Sector, Forms of Public Sector - Feature, Merits and Demerits, Changing role of Public Sector, Features of - Global Enterprises, Joint Venture, PPP .
August	Business Services	Banking - Types of bank account, banking services , RTGS , NEFT , core banking
		Insurance - Principles, Life Insurance, Health Insurance, Fire Insurance and Marine Insurance - Meaning and Differentiation. Postal and telecom services .
	Emerging Modes of Business	E- Business - Scope, Benefit, Resources required to implement, online transactions, Payment mechanism and Security and safety of business transaction, Outsourcing BPO and KPO





	Social Responsibility and Business Ethics	Meaning, Definition and Need for Social Responsibility, Arguments For and Against Social Responsibility, Responsibility towards different interest groups, Role of business in environment protection business ethics – concept and elements
<b>September</b>	<b>Block Test 1</b>	
<b>October</b>	Sources of Business Finance	Meaning and need for Business Finance, Sources of business finance ownership basis, Retained Earnings, Issue of equity shares, Preference shares
		Borrowed Fund - Debenture and Bonds, Loans from Commercial Banks and Financial Institutions, Public Deposit, Trade Credit and ICD.
<b>November</b>	Small Business	Entrepreneurship Development, concept, characteristics, process and need, Definition of Small Scale Enterprise, Role of Small Business in India with special Reference to Rural Areas
		Government Scheme and Agencies - NSIC and DIC with special reference to Rural, Backward and Hilly Area and written work, start-up India Scheme, ways to fund start-up, intellectual property rights. Small scale enterprises defined by MSMED Act 2006 (Micro, Small and Medium Enterprise Development Act)
	Internal Trade	GST concept and key features, Services of a wholeseller, Services of Retailers, Types of Retail Trade - Itinerant retailers.
		Small Scale Fixed Shops, Large Scale Retailer - Departmental Stores
		Chain Stores and Mail Order Houses
		GST -Concept and Key features
<b>January &amp; February</b>	<b>UT II</b>	
	International Trade	Meaning, Characteristics of International Trade, Difference between Internal and International Trade, Advantages and Disadvantages of International Trade
		Export Procedure with all documents and Import Procedure with all documents. WTO and its functions.
	<b>Revision &amp; Block Test 2</b>	





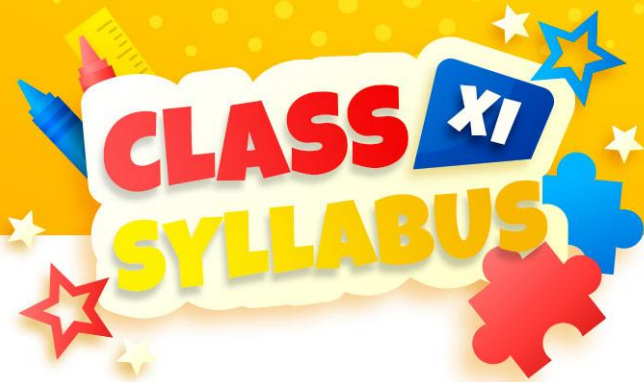
Session: 2023-24

**Subject:- GEOGRAPHY**

FUNDAMENTALS OF PHYSICAL GEOGRAPHY [PART A]			
MONTH	UNIT	TOPICS	SUB TOPICS
APRIL	I	Geography As a Discipline	Geography as an integrating discipline, as a science of spatial attributes. Branches of Geography: Physical Geography and Human Geography.
	II	The Earth	Origin and evolution of the earth; Interior of the earth.: Earthquakes and volcanoes: causes, types and effects. Distribution of oceans and continents: Wegener's continental drift theory and plate tectonics.
MAY-JUNE	III	Landforms	Geomorphic processes: weathering; mass wasting; erosion and deposition; soil-formation. Landforms and their evolution - Brief erosional and depositional features
JULY UT-1			
AUGUST	IV	Climate	Atmosphere- composition and structure; elements of weather and climate. Insolation- angle of incidence and distribution; heat budget of the earth- heating and cooling of atmosphere (conduction, convection, terrestrial radiation and advection); temperature - factors controlling temperature; distribution of temperature- horizontal and vertical; inversion of temperature. Pressure belts; winds- planetary, seasonal and local; air masses and fronts; tropical and extratropical cyclones. Precipitation- evaporation; condensation- dew, frost, fog, mist and cloud; rainfall- types and world distribution. Climate and Global Concerns
BLOCK TEST 1			
SEPTEMBER	V	Water (Oceans)	Basics of Oceanography
OCTOBER			Oceans - distribution of temperature and

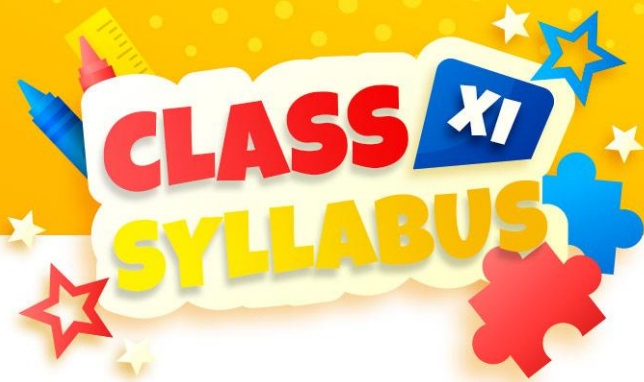






NOVEMBER			salinity. Movements of ocean water-waves, tides and currents
UT2			
DECEMBER	V	Water (Oceans)	submarine relief. Ocean resources and pollution
JANUARY	UT-3		
	VI	Life On Earth	Biosphere - importance of plants and other organisms; biodiversity and conservation.
REVISION			
FEBRUARY	BLOCK TEST -2		



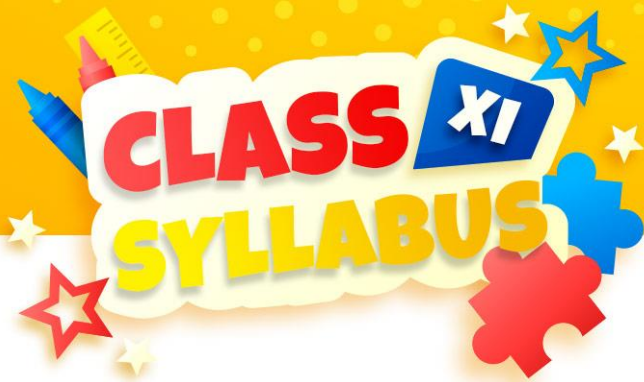


Session: 2023-24

**Subject:- HISTORY**

MONTH	UNIT	TOPICS/THEMES	Focus
April	1	Early Societies	Introduction of world History Introduction Timeline 1 (6 MYA to 1 BCE)
May	1	Writing and City Life	Iraq, 3 <sup>rd</sup> millennium BCE <div>Growth of towns Nature of early urban societies</div> Historians’ Debate on usesof writing
June	2	An Empire acrossThree Continents	Introduction Timeline II (C.100 BCE TO 1300 CE) Roman Empire, 27 BCE to 600 CE. <div>Political evolution Economic expansion Religion-culture foundation Late Antiquity Historians’ views on the institution ofSlavery</div>
July	REVISION		
UT1			
August	3	Nomadic Empires	The Mongol, 13 <sup>th</sup> to 14 <sup>th</sup> century <div>The nature of nomadism Formation of empires Conquests and relations with other states Historians’ views on nomadic societies andstate formation</div>
BLOCK TEST 1			





September	4	The Three Orders	<div>Introduction Timeline III (C.1300 TO 1700) Western Europe, 13<sup>th</sup>-16<sup>th</sup> century</div> <div>Feudal society and economy Formation of states Church and Society Historians’ views on decline of feudalism.</div>
October	5	Changing CulturalTraditions	<div>Europe, 14<sup>th</sup> to 17<sup>th</sup> century</div> <div>New ideas and new trends in literature andarts Relationship with earlier ideas</div>
November	5	Changing CulturalTraditions	<div>The contribution of West Asia Historians’ viewpoints on the validity of thenotion ‘European Renaissance’</div>
December	REVISION		
UT2			
January	6	Displacing Indigenouspeople	<div>Introduction Timeline IV (C.1700 TO 2000) North America and Australia, 18<sup>th</sup> – 20<sup>th</sup> century</div> <div>European colonists in North America andAustralia Formation of white settler societies Displacement and repression of local people Historians’ viewpoints on the impact of European settlement on indigenouspopulation.</div>
UT3			
January	7	Paths to Modernisation	<div>Focus on East Asia, late 19th and 20th century</div> <div>Militarization and economic growth inJapan China and the Communist alternative. Historians’ Debate on the meaning ofmodernisation</div>
February	REVISION & BLOCK TEST II		





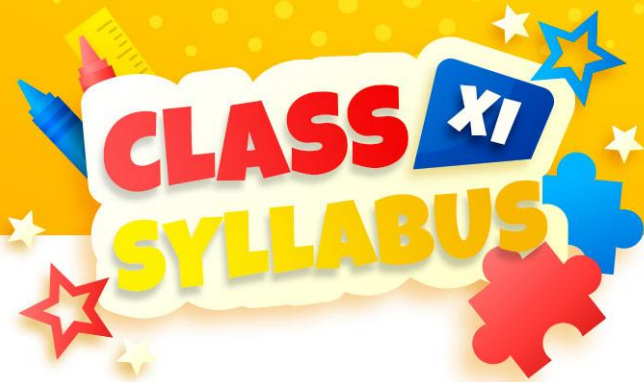
Session: 2023-24

**Subject:- POLITICAL SCIENCE**

Month	Units/ Chapters	Indian Constitution At Work	
		Topic	Sub-Topic
April	1	Constitution Why and How?	Why do we need a Constitution? Constitution allows coordination and assurance Specification of decision making powers Limitations on the powers of government Aspirations and goals of a society Fundamental identity of a people b) The authority of a Constitution Mode of promulgation The substantive provisions of a constitution Balanced institutional design How was the Indian Constitution made? Composition of the Constituent Assembly Procedures Inheritance of the nationalist movement Institutional arrangements Provisions adapted from Constitutions of different countries
	2	Rights in the Indian Constitution	The importance of rights Bill of Rights Fundamental rights in the Indian Constitution (Right to Equality, Right to Freedom, Right against Exploitation, Right to Freedom of Religion, Cultural and Educational Rights, Right to Constitutional Remedies) Directive principles of state policy Relationship between fundamental rights and directive principles
May	3	Elections and Representation	Elections and democracy Election system in India First Past the Post System Proportional Representation Why did India adopt the FPTP system?
			Reservation of constituencies Free and fair elections Universal franchise and right to contest Independent Election Commission Electoral Reforms

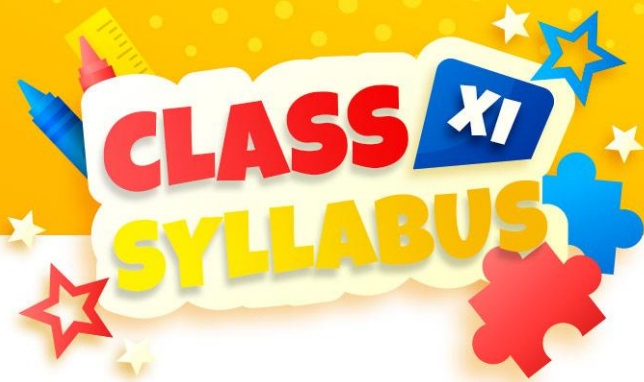






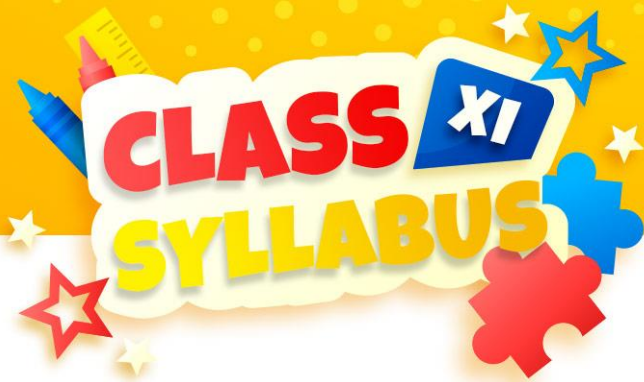
June	4	The Executive	<p>What is an executive?</p> <p>What are the different types of executives?</p> <p>Parliamentary executive in India</p> <p>Power and position of President</p> <p>Discretionary Powers of the President</p> <p>Prime Minister and Council of ministers</p> <p>Permanent Executive: Bureaucracy</p> <p>Why do we need a parliament?</p> <p>Why do we need two houses of parliament?</p> <p>Rajya Sabha</p> <p>Lok Sabha</p> <p>What does the parliament do?</p> <p>Powers of Rajya Sabha</p>
	5	The Legislature	
UNIT TEST 1			
July	6	The Judiciary	<p>Why do we need an independent judiciary?</p> <p>Independence of Judiciary</p> <p>Appointment of Judges</p> <p>Removal of Judges</p> <p>Structure of the Judiciary</p> <p>Jurisdiction of supreme Court</p> <p>Original Jurisdiction</p> <p>Writ Jurisdiction</p> <p>Appellate Jurisdiction</p> <p>Advisory Jurisdiction</p> <p>Judicial Activism</p> <p>Judiciary and Rights</p> <p>Judiciary and Parliament</p>
	7	Federalism	<p>What is Federalism?</p> <p>Federalism in the Indian Constitution</p> <p>Division of Powers</p> <p>Federalism with a strong central government d)</p> <p>Conflicts in India's federal system</p> <p>Centre-State Relations</p> <p>Demands for Autonomy</p> <p>Role of Governors and President's Rule</p> <p>Demands for New States</p> <p>Interstate Conflicts</p> <p>Special provisions</p> <p>Jammu and Kashmir</p>





	8	Local Governments  Constitution as a Living Document	Why local governments? Growth of Local Government in India
			Local Governments in Independent India
			73rd and 74th amendments d)
			73rd Amendment
August			Three Tier Structure Elections Reservations Transfer of Subjects State Election Commissioners State Finance Commission e)
			74th Amendment f)
			Implementation of 73rd and 74th
			Amendments
	9		Are constitutions static?
			How to amend the constitution?
			Why have there been so many amendments?





	10	The Philosophy of the Constitution	<p>Contents of amendments made so far</p> <p>Differing Interpretations</p> <p>Amendments through Political Consensus</p> <p>Controversial Amendments</p> <p>Basic structure and evolution of the constitution f)</p> <p>Constitution as a Living Document</p> <p>Contribution of the Judiciary</p> <p>Maturity of the Political Leadership</p> <p>What is meant by philosophy of the constitution?</p> <p>Constitution as Means of Democratic Transformation</p> <p>Why do we need to go back to the Constituent Assembly?</p> <p>What is the political philosophy of our constitution?</p> <p>Individual freedom</p> <p>Social Justice</p> <p>Respect for diversity and minority rights</p> <p>Secularism</p>
	Revision Work		
	Block Test 1		
September October	8	Political Theory:An Introduction	<p>What is Politics?</p> <p>What do we study in politicaltheory?</p> <p>Putting Political theory intopractice</p> <p>Why should we study politicaltheory?</p>
	9	Freedom	<p>The Ideal of freedom</p> <p>The sources of Constraints-Whydo we need constraints?</p> <p>The Harm Principle</p> <p>Negative and Positive liberty</p>
November	10	Equality	<p>Why does equality matter?</p> <p>Equality of opportunities</p> <p>Natural and Social Inequalities</p> <p>Three dimensions of equality</p> <p>Feminism, Socialism</p> <p>How can we promote equality?</p>

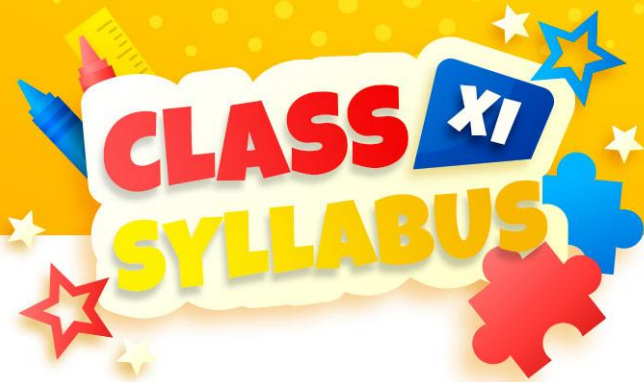




	11	Social Justice	What is Justice? Equal Treatment for Equals Proportionate Justice Recognition of Special Needs Just distribution) John Rawls Theory of Justice Pursuing Social Justice Free Markets versus State Intervention
	12	Rights	What are Rights? History of Rights Kinds of Rights Legal Rights and the State; Human Rights.
	13	Citizenship	Introduction Full and equal membership Equal Rights Citizen and Nation Universal Citizenship Global Citizenship
	14	Nationalism	Nation and Nationalism; Variants of Nationalism; Pluralism, Multiculturalism
UNIT TEST 2			
January	15	Secularism	What is Secularism? Inter-religious Domination Intra-religious Domination Secular State The western model of secularism The Indian model of secularism Criticisms of Indian secularism Western Import Minoritism Interventionist Vote Bank Politics
	Revision		
February	Block Test 2		





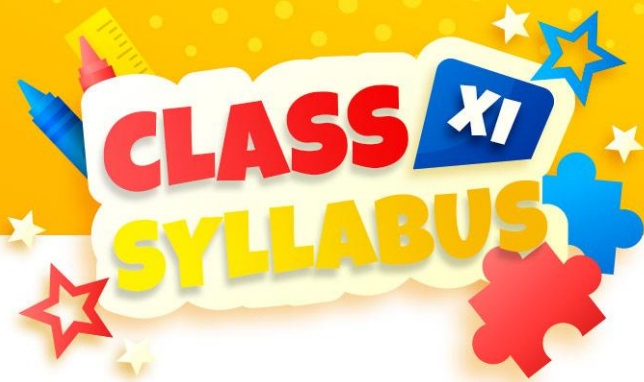


Session: 2023-24

**Subject:- PSYCHOLOGY**

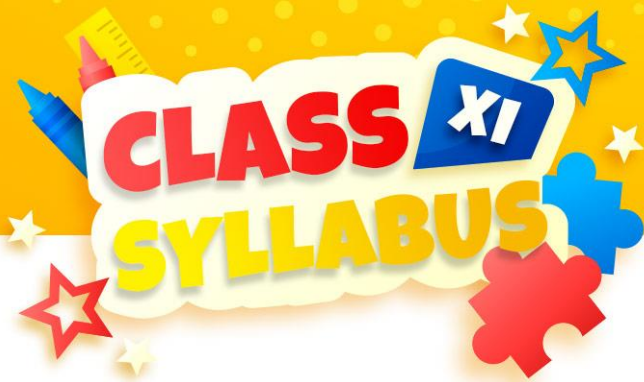
MONTH	UNITS CHAPTERS	TOPIC	SUB-TOPIC
APRIL - MAY	1	What is Psychology?	Introduction and understanding and evolution of mind and behavior. Psychology and other disciplines
			Branch's themes, psychology in India, Psychology at work.
	2	Methods of enquiry	Goals and nature of enquiry. Nature of psychological data
			Some important methods
			Analysis of data, ethical issues and limitations
JUNE	4	Human Development	Development growth and maturation
			Overview of developmental stages
			Infancy, childhood, adulthood etc.
JULY	5	Sensory attentional perceptual processes	Sense modalities, adaptation, and attentional process.
			Perception Concept and definition
			Principles of perception and after images
			Perception of space depth and
			<b>distance.</b>





			<b>Perceptual constancies- Illusions, socio-cultural influences in perception</b>
UNIT TEST 1			
AUGUST	6	Learning	Nature of learning
			Classical and operant conditioning, observational, cognitive, verbal, skill learning
			Concept and skill learning
			Learning styles and learning disorders
			Application of learning Principles
SEPTEMBER	Revision Work & BLOCK TEST 1		
OCTOBER	7	Human Memory	Nature of memory, Information Processing approach of memory.
			Knowledge representation and processes. Memory systems
			Nature and causes of forgetting
			Enhancing Memory
November	8	Thinking	Nature of Thinking
			Thoughts and languages
			Reasoning, problem solving, decision making
			Nature and process of creative thinking
			Developing creativity
UNIT TEST 2			





December	9	Motivation and Emotion	Nature of motivation
			Motives- Biological and psychosocial
			Maslow’s Hierarchy of needs
			Emotion-concepts and definitions
			Emotional expressions
			Theories of emotions
			Managing Negative emotion
JANUARY	REVISION & UT 3		
FEBRUARY	BLOCK TEST 2		





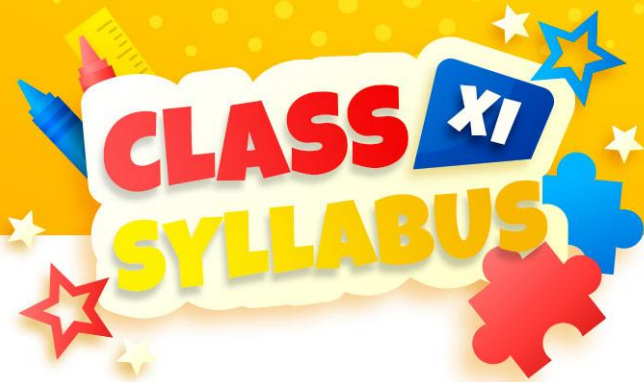
Session: 2023-24

**Subject:- PHYSICAL EDUCATION**

Month	Unit	Topic	Sub Topic
April & May	1	Changing Trends & Career In Physical Education	Concept, Aims & objectives in Physical education
			Changing trends in Sports- playing surface, wearable gears and sports equipment, technological advancements
			Career options in Physical education
			Khelo India program & Fit-India Program
June	2	Olympism	Ancient and Modern Olympics
			Olympism – Concept and Olympics Values (Excellence, Friendship & Respect)
			Olympics - Symbols, Motto, Flag, Oath, and Anthem
			Olympic Movement Structure - IOC, NOC, IFS, Other members
	Revision & Unit Test- 1		
June	3	Yoga	Meaning & Importance of Yoga
			Introduction to Ashtanga Yoga
			Introduction to Yogic Kriyas (Shat Karma)
July	4	Physical Education & Sports For CWSN ( Children With Special Needs- Divyang)	Concept of Disability and Disorder
			Types of Disability, its causes & nature (Intellectual disability, Physical disability)
			Aim & Objective of Adaptive Physical Education
			Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist & Special Educator)
			Meaning and Importance of Wellness, Health and Physical Fitness

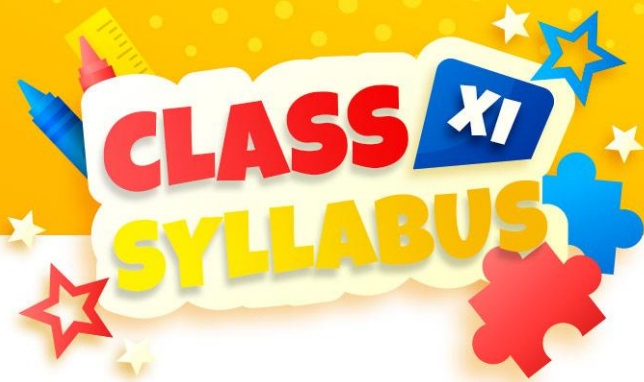






			Components/Dimensions of Wellness, Health and Physical Fitness
			Traditional Sports & Regional Games for promoting wellness
	Revision and BlockTest 1		
October	6	Test, Measurement & Evaluation	Concept of Test, Measurement & Evaluation in Physical Education & sports
			Classification of Test in Physical Education and Sports
			Test administration guidelines in Physical education and sports
November	7	Fundamentals Of Anatomy, Physiology in Sports	Definition and Importance of Anatomy and Physiology in exercise and sports
			Functions of Skeletal system, classification of bone and types of joints
			Function and Structure of Circulatory system and heart
			Function and Structure of Respiratory system
			Definition and Importance of Kinesiology and Biomechanics in Sports
			Principles of Biomechanics
			Types of Body Movements - Flexion, Extension, Abduction, Adduction, Rotation, Circumduction, Supination & Pronation
			Axis and Planes – Concept and its application in body movements
			Definition & Importance of Psychology in Phy. Edu. & Sports
			Adolescent Problems & Their Management
			Team Cohesion and Sports
			Revision & UnitTest- 2
February	10	Training & Doping In Sports	Concept and Principles of Sports Training
			Training Load: Over Load, Adaptation, and Recovery
			Concept of Doping and its disadvantages
Revision & Block Test 2			



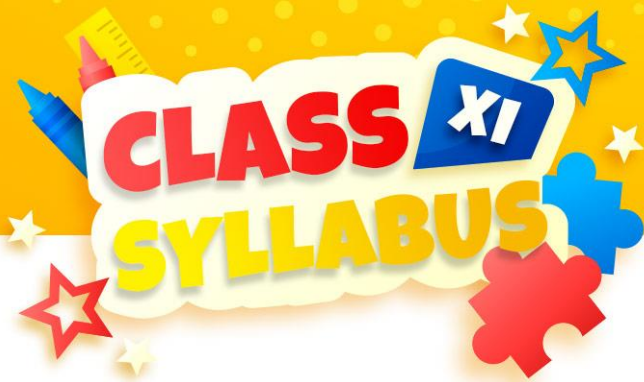


**Session: 2023-24**

**Subject:- PAINTING**

Month	Units	Theory	Practical	Medium
<b>April</b>	<b>1</b>	A. Pre-Historic Rock-Paintings Introduction 1) Period and Location 2) Study and appreciation of following Pre-historic paintings: i. Wizard's Dance, Bhimbethaka.	Nature and Object Study-1	<b>Acrylic/Oil Painting</b> (Canvas Painting) Water Colour, Colour Pencil & Pencil.
<b>May</b>	<b>1</b>	B. Introduction 1) Period and Location. i. Harappa & Mohenjo-daro (Now in Pakistan) ii. Ropar, Lothal, Rangpur, Alamgirpur, Kali Bangan, Banawali and Dholavira (in India)	Nature and Object Study-1	<b>Acrylic/Oil Painting</b> (Canvas Painting) Water Colour, Colour Pencil & Pencil.
<b>June</b>	<b>1</b>	i. Dancing girl (Mohenjo-daro) Bronze, ii. Male Torso (Harappa) Red lime Stone, iii. Mother Goddess (Mohenjo-daro)	Nature and Object Study-2	<b>Acrylic/Oil Painting</b> (Canvas Painting) Water Colour, Colour Pencil & Pencil.
<b>July</b>	<b>Unit Test-1</b>			
	<b>1</b>	i. Bull (Mohenjo-daro) Stone (Steatite), Decoration on earthen wares: Painted earthen-ware (Jar) Mohenjo-daro (Collection: National Museum, New Delhi)	Painting Composition-1	<b>Acrylic/Oil Painting</b> (Canvas Painting) Water Colour, Colour Pencil & Pencil.
<b>August</b>	<b>2</b>	General Introduction to Art during Mauryan, Shunga, Kushana (Gandhara and Mathura styles) and Gupta period:	Painting Composition-1	<b>Acrylic/Oil Painting</b> (Canvas Painting) Water Colour, Colour Pencil & Pencil.
<b>September</b>	<b>2</b>	i. Lion Capital from Sarnath (Mauryan period) ii. Chauri Bearer from Didar Ganj (Yakshi)	Landscape Painting	<b>Acrylic/Oil Painting</b> (Canvas Painting) Water Colour, Colour Pencil & Pencil.





		iii. Seated Buddha from Katra Mound, Mathura-(Kushan Period-Mathura Style) iv. Jain Tirathankara (Gupta period)		
	<b>Revision &amp; Block Test 1</b>			
<b>October</b>	<b>2</b>	Introduction to Ajanta Location Period, No of caves, Chaitya and Vihara, paintings and sculptures, subject matter and technique etc.	Landscape Painting	<b>Acrylic/Oil Painting</b> (Canvas Painting) Water Colour, Colour Pencil & Pencil.
<b>November</b>	<b>3</b>	Introduction to Temple Sculpture: i. Descent of Ganga (Pallava period, Mahabalipuram, Tamil Nadu), ii. Trimuti (Elephanta, Maharashtra) iii. Lakshmi Narayana (Kandariya Mahadev Temple) iv. Cymbal Player, Sun Temple (Ganga Dynasty, Konark, Orissa)	Composition-2	<b>Acrylic/Oil Painting</b> (Canvas Painting) Water Colour, Colour Pencil & Pencil.
	<b>Unit Test-2</b>			
<b>December</b>	<b>3</b>	v. Mother and Child (Vimal-Shah Temple, Solanki Dynasty, Dilwara, Mount Abu; Rajasthan)  Bronzes: 1. Introduction to Indian Bronzes. 2. Method of casting (solid and hollow) 3. Study and appreciation of following South Indian Bronze: Nataraj	Composition-2	<b>Acrylic/Oil Painting</b> (Canvas Painting) Water Colour, Colour Pencil & Pencil.
	<b>Unit Test-3</b>			
<b>January</b>	<b>3</b>	Artistic aspects of the indo-Islamic architecture: 1. Introduction 2. Study and appreciation of following architecture: i. Qutub Minar, Delhi ii. Gol Gumbad of Bijapur.	Portfolio Assessment	<b>Acrylic/Oil Painting</b> (Canvas Painting) Water Colour, Colour Pencil & Pencil.
<b>February</b>	<b>Revision &amp; Block Test- 2</b>			

