CLASS

XI

Syllabus

DELHI PUBLIC SCHOOL

DURGAPUR

ENGLISH

Month	Month/ Unit	Reading	Writing	Grammar	Literature
April and May	1	Bridge Course	Paragraph writing from topic sentence	Revision	Interpretation of
		Comprehension from factual and discursive passages	Essay writing from verbal and visual input	1. Parts of speech	Textual passages
				2. Agreement of subject and verb	1. Prose
					2. Poetry
					Vocabulary :
				3. Tenses	Inference from context
June	2	Listening / Speaking	1. Note making from passage given	Tenses and usage	The Portrait of a Lady (Hornbill)
			2. Notice writing / Advertisement		A Photograph (poem)
	3	Answering questions from a given passage	Writing a report on any event or incident	Determiners	The Summer of the Beautiful White Horse (Snapshots)
July	**UT1**				
July	4	Vocabulary	1. Composition on argumentative topic	Re-ordering of sentences	We're not Afraid to Die (Hornbill)
		Identifying words from a passage	2. Poster Making		The Address (Snapshots)
	5	Listening / Speaking	Descriptive writing	Clauses	Discovering Tut (Hornbill)
			(describing a place or event)		The Laburnum Top (poem)
August	6	Summarizing	Letter writing	Error Correction	Ranga's Marriage
			Rules of formal letter writing		(Snapshots)
					Landscape of the Soul
	7	Conversation Skills	Letter of enquiry	Phrases:	Albert Einstein at School (Snapshots)
			Letter to the Editor	Adjective, Adverb, Noun	Dramatisation
September	**Revision and Block Test**				
October	8	Subtitling	Report Writing for a magazine	Clauses	The Ailing Planet
					The Voice of the Rain(Poem)
					The Voice of the Rain(poem)

ENGLISH

Month	Month/ Unit	Reading	Writing	Grammar	Literature
November	9	Conversation Skills	Letter of complaint	Exercises on identification of clauses	The Browning Version
			Letter of enquiry	Advertisement	Childhood (poem)
	10	Listening Comprehension	Letter of application	1. Active and Passive Voice	Mother's Day
			Letter to the Principal	2. Advertisement	Birth
					Silk Road
November - Decem- ber	**UT2**				
Dec ember	11	Interpreting	Writing a CV	Modals	The Adventure
		Newspaper articles			Father to Son (Poem)
January	**UT3**				
January	12	Summarizing	Article for a newspaper	Editing	The Tale of a Melon City (poem)
		from a passage			
	13	Vocabulary building	Letter to the editor	Using the correct verb in sentences	The Ghat of the Only World(Snapshots)
	Revision				
February	**Revision and Block Test**				
Note : No Change in syllabus from session 2018-19					
Theory Paper 80 marks +ASL(assessment of speaking and listening skill) 20 marks					

MATHEMATICS

Month	Topics	
April - May [Upto Summer Vcation]	Sets, Relations and Functions	Basic Concepts of Logarithm, Quadratic Equation and Expression
		Sets and Relations
		Concept of functions
June	Trigonometry	Measurement of angles
		Compound Angle and Associated Angle
		Transformation of Sum and Product
		Multiple and Sub-multiple angle
July	**UT 1/PT 1**	
July	Complex Number and Quadratic Equation	Properties of complex number
		Modulus, Argument and Polar form
	Trigonometric Equations	Pricipal solution and general solution
	Linear Inequalities	Properties of inequalities, Solve Graphically
		Word problem
August	Principle of Marhematical Induction	Prove by method of induction
	Sequence and Series	AP, GP, nth. Term, sum of the n terms,
		Series relating AP, GP series
	Equation of The Straight Line	Distance and Section formula, Area of triangle, collinearity
		Equation of lines and different forms
		Angle between lines,Condition of parrellism, Parallal line, Locus
September	**Revision And Block Test I**	
October-November	Permutation and Combination	Counting theory, Difference of permutation and combination and related sums
	Binomial Theorem	nth. Term, middle term,and for negative and fractional index
	Circle and Parabola	Equation of circle (General equation), Condition of tangency
		Parabola (Definition related locus) and Formula
		Parametric form
November - December	**UT 2/PT 2**	

MATHEMATICS

Month	Topics	
December	Ellipse, Hyperbola, 3-D Geometry, Statistics	Equation of ellipse and Hyperbola
		Parametric form
		3D- Geometry (Distance and Section Formula)
		Statistics (Mean, Median, Standard deviation, MD)
January	Solution of Triangles, Probability, Limits and Derivatives,	Solution of Triangles
		Probability
		Limits
		Differentiation- 1st. Principle and properties
January	**UT 3/PT 3**	
January	Mathematical Reasoning	Mathematical Reasoning
February	**Revision**	
February	**Revision And Block Test II**	
Theory Paper 80 marks + Internal assessment (Periodic tests/Unit Test & Mathematics Activity) 20 marks		

PHYSICS

MONTH	UNIT	TOPICS	SUB TOPICS
April	--	Measurement and units	Physics - scope and excitement; nature of physical laws; Physics, technology and society.Need for measurement: Units of measurement; systems of units; SI units, fundamental and derived units. Length, mass and time measurements; accuracy and precision of measuring instruments; errors in measurement; significant figures. Dimensions of physical quantities, dimensional analysis and its applications
		Calculus	Elementary Differential and integral calculus
May and June	I	Kinematics	Frame of reference. Motion in a straight line: Position-time graph, speed and velocity.Uniform and non-uniform motion, average speed and instantaneous velocity.
			Uniformly accelerated motion, velocity-time, position-time graphs, relations for uniformly accelerated motion (graphical treatment).
	II		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. Relative velocity.
			Unit vector; Resolution of a vector in a plane - rectangular components. Motion in a plane. Cases of uniform velocity and uniform acceleration-projectile motion. Uniform circular motion
July	II and III	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.
			Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on level circular road, vehicle on banked road).
July	**UT I**		
July	IV	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: conservation of mechanical energy (kinetic and potential energies); non-conservative forces: elastic and inelastic collisions in one and two
	V	Motion of System of Particles and Rigid Body(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	VI	Motion of System of Particles and Rigid Body(2)	Moment of a force, torque, angular momentum, conservation of angular momentum with some examples.

PHYSICS

MONTH	UNIT	TOPICS	SUB TOPICS
			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). Statement of parallel and perpendicular axes theorems and their applications.
September	**REVISION AND BLOCK TEST 1**		
October	VII	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.
		Properties of Bulk Matter (1)	Elastic behavior, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear, modulus of rigidity.
			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, Reynold's number, streamline and turbulent flow. Bernoulli's theorem and its applications.
			Surface energy and surface tension, angle of contact, application of surface tension ideas to drops, bubbles and capillary rise.
November	VIII and IX	Thermal Properties Of Matter	Heat, temperature, thermal expansion; specific heat - calorimetry; change of state - latent heat. Heat transfer-conduction, convection and radiation, thermal conductivity, Newton's law of cooling.
		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. Heat engines and refrigerators
			Equation of state of a perfect gas, work done on compressing a gas.

PHYSICS

MONTH	UNIT	TOPICS	SUB TOPICS
December	IX	Behaviour of Perfect Gas and Kinetic Theory	Kinetic theory of gases - assumptions, concept of pressure. Kinetic energy and 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
	X	Oscillations	Periodic motion - period, frequency, displacement as a function of time. Periodic functions. Simple harmonic motion (S.H.M) and its equation; phase; oscillations of a spring-restoring force and force constant; energy in S.H.M.-kinetic and potential energies; simple pendulum-derivation of expression for its time period; free, forced and damped oscillations (qualitative ideas only), resonance.
UT 2			
January	X I	Waves	Wave motion. Longitudinal and transverse waves, speed of wave motion. 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, Doppler effect.
UT 3			
February	**REVISION**		
	REVISION AND BT 2		

PHYSICS

Practical work: Project File and Viva

Practical Marks: 30 Marks

Exam	Topics
Block Test - 1	**Group A**
	1. To measure the external diameter, internal diameter, thickness, depth of a hollow cylinder and to calculate the volume of solid cylinder using Vernier Calliper
	2. To measure the diameter of a given weire using screw gauge
	3. To measure the radius of curvature of a convex surface using spherometer
	4. To calculate the effective length of a second's pendulum by plotting L - T^2 graph
	5. To show that time period of a pendulum independent of mass by measuring time periods of as set of bob of comparable sizes but of different measures
	6. To measure the coefficient of friction by plotting applied force Vs frictional force for a normal surface
Block Test 2	**Group B**
	1. To show the net force acting on a object placed over a inclined plane is directly proportional to sine component of angle of inclination and to plot (W VS Sin θ)
	2. To measure the surface tension of water by capillary rise of liquid (Using travelling microscope)
	3. To measure the coefficient of viscosity of a given liquid by calculating terminal velocity of a small spherical object
	4. To determine the speed of sound by using resonance tube for two different resonant positions
	5. To calculate the specific heat capacity of a solid by the method of mixture
	6. To study the relationship between the temperature of a hot body and time by plotting a cooling curve

Activity

1. To prepare paper scale [least count 0.5 cm]
2. To verify the principle of moment of using normal ruler as beam balance
3. To verify Newton's Law of cooling for molten was to plot cooling curve
4. To observe the lateral deviaiton (shift) in path of ray of light when incident of a glass slab
5. To observe the phenomenon of surface tension for detergent water

CHEMISTRY

MONTH	CHAPTER NO.	CHAPTER	CONTENTS
April	I	Some Basic Concepts of Chemistry	• 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 molecular formula • chemical reactions, stoichiometry and calculations based on stoichiometry.
May-June	II	Structure of Atom	• 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 • rules for filling electrons in orbitals - Aufbau principle, Pauli's exclusion principle and Hund's rule • electronic configuration of atoms, stability of half-filled and completely filled orbitals.
July	**UT I**		
July	III	Classification of Elements 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, Ionization enthalpy, electron gain enthalpy, electronegativity, valency. • Nomenclature of elements with atomic number greater than 100
July	IV	Chemical Bonding and Molecular structure	• Valence electrons, ionic bond, covalent bond, bond parameters, Lewis structure • polar character of covalent bond, covalent character of ionic bond • valence bond theory, resonance • geometry of covalent molecules, VSEPR theory • concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules • molecular orbital theory of homonuclear diatomic molecules(qualitative idea only), hydrogen bond.
July	V	States of Matter: Gases, Liquids.	Three states of matter, intermolecular interactions, types of bonding, melting and boiling points, role of gas laws in elucidating the concept of the molecule • Boyle's law, Charles law, Gay Lussac's law, Avogadro's law, ideal behaviour, empirical derivation of gas equation, Avogadro's number, ideal gas equation. • Deviation from ideal behaviour • liquefaction of gases, critical temperature, kinetic energy and molecular speeds (elementary idea) • Liquid State: vapour pressure, viscosity and surface tension (qualitative idea only, no mathematical derivations)
August	VI	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 ΔU and ΔH.

CHEMISTRY

Month	Chapter No.	Chapter	Contents
August	VI	Thermodynamics	• 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 (brief introduction). Introduction of entropy as a state function, Gibb's energy change for spontaneous and non- spontaneous processes, criteria for equilibrium. • Third law of thermodynamics (brief introduction).
August	XII	Organic Chemistry - Some Basic Principles and Techniques	• Classification and IUPAC nomenclature of organic compounds. • Isomerism
September	**REVISION AND BLOCK TEST 1**		
October	XII	Organic Chemistry - Some Basic Principles and Techniques (CONTINUED)	• Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyper conjugation. • Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles, types of organic reactions.
November	IX	Hydrogen	• Position of hydrogen in periodic table, occurrence, isotopes, • preparation, properties and uses of hydrogen, • hydrides-ionic covalent and interstitial; • physical and chemical properties of water, heavy water, hydrogen peroxide -preparation, reactions and structure and use; hydrogen as a fuel.
	UT 2		
	XIII	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 (Markownikov's addition 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's alkylation and acylation, • directive influence of functional group in monosubstituted benzene. Carcinogenicity and toxicity.
December	VII	Equilibrium	• Equilibrium in physical and chemical processes, dynamic nature of equilibrium • law of mass action, equilibrium constant • factors affecting equilibrium- Le Chatelier's principle,

CHEMISTRY

Month	Chapter No.	Chapter	Contents
December			• ionic equilibrium- ionization of acids and bases, strong and weak electrolytes, degree of ionization, ionization of poly basic acids, acid strength, concept of pH • Henderson Equation, hydrolysis of salts (elementary idea), buffer solution, solubility product, common ion effect (with illustrative examples).
	VIII	Redox Reactions	• Concept of oxidation and reduction, redox reactions, oxidation number, • balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number. • Electrochemical cells • applications of redox reactions.
January	**UT 3**		
	X	s - block Elements (Alkali and Alkaline Earth Metals)	Group 1 and Group 2 Elements :-General introduction, electronic configuration, occurrence, anomalous properties of the first element of each group, diagonal relationship, • trends in the variation of properties (such as ionization enthalpy, atomic and ionic radii), trends in chemical reactivity with oxygen, water, hydrogen and halogens, uses. • Preparation and Properties of Some Important Compounds: Sodium Carbonate, Sodium Chloride, Sodium Hydroxide and Sodium Hydrogencarbonate, • Biological importance of Sodium and Potassium. Calcium Oxide and Calcium Carbonate and their industrial uses, biological importance of Magnesium and Calcium.
January	XI	p-block Elements	• General Introduction to p -Block Elements Group 13 Elements: General introduction, electronic configuration, occurrence, variation of properties, oxidation states, trends in chemical reactivity, anomalous properties of first element of the group, • Boron - physical and chemical properties, some important compounds, Borax, Boric acid, Boron Hydrides, Aluminium: Reactions with acids and alkalies, uses • Group 14 Elements: General introduction, electronic configuration, occurrence, variation of properties, oxidation states, trends in chemical reactivity, anomalous behaviour of first elements. • Carbon-catenation, allotropic forms, physical and chemical properties; uses of some important compounds: oxides. Important compounds of Silicon and a few uses: Silicon Tetrachloride, Silicones, Silicates and Zeolites, their uses.
	XIV	Environmental Chemistry	• Environmental pollution - air, water and soil pollution, • chemical reactions in atmosphere, smog, major atmospheric pollutants, acid rain • ozone and its reactions, effects of depletion of ozone layer, greenhouse effect and global warming- pollution due to industrial wastes, • green chemistry as an alternative tool for reducing pollution, strategies for control of environmental pollution concentration of either of the ions.
	Revision		
February	**Revision and BT-2**		
Theory Paper 70 Marks + Practical Work 30 Marks			

CHEMISTRY

Practical work: Project File and Viva

Practical Marks: 30 Marks

Exam	Topics
Block Test 1	**1. To Identify the acidic radical in the given salt sample.**
	(i) Carbonate, Sulphide, Nitrite
	(ii) Chloride, Bromide, Iodide, Nitrate, Acetate
	(iii) Sulphate
	2. To Identify the basic radical in the given salt sample.
	(i) Group Zero radical: Ammonium
	(ii) Group I radicals: Lead,
	(iii) Group II radicals: copper
Block Test 2	**3. To identify the basic radical (continued)**
	(i) Group III radicals: Aluminium, Iron(III)
	(ii) Group IV radicals: Cobalt, Nickel, Manganese, Zinc
	(iii) Group V radicals: Barium, Calcium, Strontium
	4. TITRATION
	To calculate the strength of NaOH by titrating it against standard oxalic acid
	To calculate the strength of HCl by titrating it against standard sodium carbonate.
	5. INVESTIGATORY PROJECT
	Any one topic either from lab manual or any other relevant topic based om CBSE syllabus.

Assessment Criteria

Heading	Marks
Identification of acid and basic radical in the given salt sample	10
Titration	10
Project	5
Lab file + Viva	5
Total Marks	**30**

BIOLOGY

Month	Unit	Topic
April- May	Bridge Course	Cell
		Cell Division
		Revision of Class 10
		Introduction to Class 11
		Diagrams- Eye, Ear, Heart(L.S. With Nodal Tissue)
June- July	Unit I And II	The Living World
		Biological Classification
		Plant Kingdom
		Animal Kingdom
July	**UT 1**	
August	Unit II And III	Biomolecules
		Morphology of Flowering Plants
		Anatomy of Flowering Plants
August	Unit III	Structural Organisation of Animals
September	**Revision And BT I**	
October	Unit III	Structural Organisation of Animals (Contd)
November - December	Unit IV And V	Transport in Plants
		Photosynthesis in Higher Plants
		Respiration in Higher Plants
		Digestion and Absorption
		Breathing and Exchange of Gases
November- December	**UT 2**	
January	Unit V	Body Fluids and Circulation
		Excretory Products and Their Elimination
		Locomotion and Movement
		Neural Control and Co-Ordination
		Chemical Co-Ordination And Integration
	Unit IV (Contd)	Mineral Nutrition in Plants
		Plant Growth and Development
January	**UT 3**	
February	**Revision And BT II**	
Theory Paper 70 Marks + Practical Work 30 Marks		

BIOLOGY

Practical work: Project File and Viva

Practical Marks: 30 Marks

Exam	Experiments	Spotting
Block Test 1	1. Study osmosis by potato osmometer	1. Study parts of compound microscope
		2. Plant kingdom – Permanent slides, specimens, models
	2. Test for the presence of sugar, starch, proteins and fats	3. Animal kingdom – Permanent slides, specimens, models
		4. Study of Mitosis – Permanent slides
	3. Preparation and study TS of dicot stem	5. Study of external morphology of cockroach through specimens/charts
Block Test 2	1. Preparation and study TS of monocot stem	1. Plant tissues and animal tissues
		2. Modification of root-stem leaves
	2. Study of plasmolysis in epidermal peels (eg.Rhoeo Leaves)	3. Study of human skeleton and different types of joints

Evaluation Scheme

Heading	Marks
One major experiment Part A	5
One minor experiment Part A	4
Slide Preparation Part B	5
Spotting Part C	7
Practical Record + Viva Voce	4
Project Record + Viva Voce	5
Total Marks	**30**

COMPUTER SCIENCE

Month	Topic	Subtopic
April May June	PYTHON	1. Getting Started With Python
		2. Python Fundamentals
		3. Data Handling
		4. Conditional And Iterative Statements
		5. Debugging Programs
July	**UNIT TEST-1**	
July-August	PYTHON	6. String Manipulation
		7. List Manipulation
		8. Tuples
		9. Dictionaries
		Complete Syllabus Of Unit Test-1
September	**BLOCK TEST-1**	
October - November		10. States And Transitions
		11. Computer System Overview
		12. Number Conversions
		13. Boolean Logic
November	**UNIT TEST-2**	
December		14. Relational Databases
		15. Simple Queries In SQL
		16. Table Creation And Data
		Manipulation Commands
		17. Table Joins And Indexes In SQL
January	**UNIT TEST-3**	
		18. Basics Of NoSql Database –
		MongoDB
		19. Cyber Safety
		20. Online Access And Computer Security
	Revision	
February	**REVISION AND BT 2**	
Theory Paper 70 Marks + Practical Work 30 Marks		

COMPUTER SCIENCE

Practical work: Practical File, Project File and Viva-Voce

Practical Marks: 30 Marks

EXAM	TOPICS
Block Test 1	Data Types and Variables
	Operators and Types
	Conditional Statement
	Iterative Statements
	Lists, tuples and dictionary
	Sorting algorithms
	String Manipulations
	Python Modules.
Block Test 2	DDL SQL Commands
	DML SQL Commands
	Single Table Query Commands
	Multiple Table Query Commands
	Aggregate functions
	NoSQL Databases MongoDB

Assessment Criteria

Heading	Marks
Lab Test	12
Python Programs	8
SQL Program	4
Practical File	7
Project File	8
Viva voce	3
Total Marks	**30**

ECONOMICS

Month	Unit	Topic	Sub Topic
April-May	Part A Unit 1	Microeconomics: Introduction	Microeconomics: 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 B Unit 1	Statistics: Introduction	Statistics: What is Economics? Meaning, scope, functions and importance of statistics in Economics
June	Part A Unit 2	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.
	Part B 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; Sampling and Non-Sampling errors; methods of collecting data; some important sources of secondary data: Census of India and National Sample Survey
	UT 1		
July	Part A Unit 2	Microeconomics: Consumer's Equilibrium and Demand	Indifference curve(contd.)
			Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, movement along and shifts in the demand curve.
	Part B Unit 2	Statistics: Collection, Organisation and Presentation of data	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).
	Part B Unit 3	Statistics: Tools and Interpretation	Measures of Central tendency: mean (simple and weighted), median and mode: introduction
August	Part A Unit 2	Microeconomics: Consumer's Equilibrium and Demand	Price elasticity of demand - factors affecting price elasticity of demand; measurement of price elasticity of demand – percentage-change method.
	Unit 3	Producer Behaviour and Supply	Meaning of Production Function – Short-Run and Long-Run Total Product, Average Product and Marginal Product. Returns to a Factor
	Part B Unit 3	Statistics: Tools and Interpretation	Measures of Central tendency: mean (simple and weighted), median and mode
September	**REVISION AND BLOCK TEST I**		

ECONOMICS

Month	Unit	Topic	Sub Topic
October	Part A Unit 3	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.
	Part B Unit 3	Statistics: Tools and Interpretation	Measures of dispersion: absolute dispersion (range, quartile deviation, mean deviation and standard deviation);
November	Part A Unit 3	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,
	Part B Unit 3	Statistics: Tools and Interpretation	Relative dispersion (co-efficient of range, co-efficient of quartile deviation, co-efficient of mean deviation, co-efficient of variation); Lorenz curve: Meaning, construction and its application.
	UT 2		
December	Part A Unit 3	Microeconomics: Producer behaviour and supply	Price elasticity of supply; measurement of price elasticity of supply - percentage-change method.
	Part B Unit 3	Statistics: Tools and Interpretation	Correlation: meaning and properties, scatter diagram, Measures of correlation – Karl Pearson's method, Spearman's Rank correlation
January	**UT 3**		
	Part A Unit 4	Microeconomics: Forms of Market and Price determination	Other Market Forms - monopolistic competition, oligopoly - their meaning and features.
			Simple Applications of Demand and Supply: Price ceiling, price floor.
	Part B 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
	REVISION		
February	**Revision and Block Test II**		
Theory Paper 80 marks + Practical Work 20 marks			

ECONOMICS

Practical work: Project File and Viva

Practical Marks: 20 Marks

Exam	Topics
Block Test 1	Effect on PPC due to various govt policies
Block Test 2	Invisible Hand(Adam smith)

Assessment Criteria

Heading	Marks
Relevance of Topic	3
Research Work/Knowledge content	6
Presentation Technique	3
Viva	8
Total Marks	**20**

BUSINESS STUDIES

MONTH	TOPIC	SUB TOPIC
April	Evolution and Fundamentals of Business	History of commerce in India, Concept and Characteristics
May	Evolution and Fundamentals of Business	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.
June	Forms of Business Organisation	Sole Proprietorship and Joint Hindu Family Business
		Partnership: Features, Types, Merits, Demerits and Types of partner and Cooperative Societies - Features, Types, Merits and Demerits
July	Forms of Business Organisation	Joint Stock Companies - Features, Merits and demerits, Formation of a company.
	UT-1	
	Forms of Business Organisation	Formation of a Company continued and Starting a Business - basic Factors and Written Work.
	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 (C. B. Gupta) and Written Work
August	Business Services	Banking - Types of bank account, banking services (Full from C.B.Gupta)
		Insurance - Principles, Life Insurance, Health Insurance, Fire Insurance and Marine Insurance - Meaning and Differentiation. Postal and telecom services (C.B.Gupta) and written work
	Emerging Modes of Business	E- Business - Scope, Benefit, Resources required to impliment, online transactions, Payment mechanism and Security and safety of business transaction
		Outsourcing - Concept, Need and Scope and KPO (C.B.Gupta), meaning and utility of smart cards and ATM and written work
September	**REVISION AND BLOCK TEST 1**	
October	Social Responsibility and Business Ethics	Meaning, Definition and Need for Social Responsibility, Arguments For and Against Social Responsibility, Responsibility towards different interest groups
		Business and environmental protection, Need and role of environmental protection, Business ethics and its elements and written work.
	Sources of Business Finance	Meaning and need for Business Finance, Sources of business finance ownership basis, Retained Earnings, Issue of equity shares, Prefernce shares
November	Sources of Business Finance	ADR, GDR, IDR (C.B.Gupta), Borrowed Fund - Debenture and Bonds, Loans from Commercial Banks and Financial Institutions, Public Deposit, Trade Credit and ICD (C.B.Gupta) and written work.
	UT-2	

BUSINESS STUDIES

MONTH	TOPIC	SUB TOPIC
November	Small Business	Entrepreneurship Development concept characteristics and need , Definition of Small Scale Enterprise, Role of Small Business in India with special Refernce to Rural Areas
		Government Scheme and Agencies - NSIC and DIC with special reference to Rural, Backward and Hilly Area and written work
	Internal Trade	GST concept and key features, Services of a wholeseller, Services of Retailers, Types of Retail Trade - Itinerant retailers.
December	Internal Trade	Small Scaled Fixed Shops, Large Scale Retailer - Departmental Stores
		Chain Stores and Mail Order Houses
	Internal Trade	Vending Machines, Basic Functions of Chamber of Commerce and Industry and Main Documents of Internal Trade and terms of Trade and written work,
January	**UT 3**	
	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 along with WTO and written work
	Revision	
February	**Revision and Block Test 2**	
Theory Paper 80 marks + Practical Work 20 marks		

BUSINESS STUDIES

Practical work: Project File and Viva

Practical Marks: 20 Marks

Exam	Topics
Block Test 1 (Any one)	Students to visit a Handicraft unit.
	Students to visit an Industry
	Students to visit to a Whole sale market (vegetables, fruits, flowers, grains, garments, etc.)
	Students to visit to a Departmental store.
	Students to visit to a Mall.
Block Test 2 (Any one)	Case Study on a Product
	Aids to Trade
	Import /Export Procedure

Assessment Criteria

File	Marks
Initiative, cooperativeness and participation	2
Creativity in presentation	2
Content, observation and research work	4
Analysis of situations	4
Viva	8
Total	**20**

Note : students to submit a project file of min 15 pages

ACCOUNTANCY

MONTH	TOPIC	SUB TOPIC
April	Introduction to Accounting	Transactions-meaning features,types.Objective of accounting & Accounting Terms, accounting concepts and accounting principles,GST etc.
May	Accounting Equation Double Entry System	Accounting Equation
		Golden Rule, Debit & Credit, Journal (incld.GST)
		Journalising
June	Double Entry System	Journalising, ledger posting and balancing of accounts.
		Ledger and Cash Book
July	Cash Book[including theory]	Cash Book-different types (upto double coulumn)
	UT 1	
	Cash Book[including theory]	Cash Book-different types
		Petty Cash Book
	Subsidiary Books and Trial Balance (including theory)	Subsidiary Books (except B/R, B/P)
		Trial Balance
August	Trial Balance and Rectification of Errors(including theory)	Trial Balance with corrections and Rectification of Errors
	Rectification of Errors	Rectification of Errors
	Bank Reconciliation Statement	Bank Reconciliation Statement
	Bank Reconciliation Statement(including theory)	Bank Reconciliation Statement
September	**Revision and Block Test 1**	
October	Bank Reconciliation Statement	Amended cash book
	Bills of Exchange(including theory)	Bills of exchange- Introduction, Drawer, Drawee, payee, Grace days and other important terms
	Bills of Exchange	Bills of Exchange
November	Bills of Exchange	Bills of Exchange
	Depreciation (including theory)	Depreciation- Method, reason for Charging depreciation. Straight Line Method only
	UT 2	
	Depreciation	Depreciation - Written down value method, provision for depreciation and Asset Disposal A/c.
December	Provision and Reserves (Theory & Sums)	meaning and types of reserves
	Final Accounts (including theory)	Final accounts - Without adjustment and adjustment explaining
	Final Accounts	Final accounts - With adjustment

ACCOUNTANCY

MONTH	TOPIC	SUB TOPIC
January	**UT 3**	
	Final Accounts	Final accounts - With adjustment
	Single Entry (including theory)	Statement of affairs method of ascertaining profit & loss, preparation of Debtors A/c, Creditors A/c and other accounts from incomplete records.
	Non Profit Organisations	Non-Profit Organisation - Basic terms, Receipts and payments account and income and expenditure account, Subcription and material consumed
	Revision	
February	**Revision and Block Test 2**	
Theory Paper 80 marks + Practical Work 20 marks		

ACCOUNTANCY

Practical work: Project File and Viva

Practical Marks: 20 Marks

Exam	Topics
Block Test 1	Students to select a story line of an entrpreneurship formulate transactions for the financial year prepare journal, cash book, ledger, balance the ledger and prepare trial balance
Block Test 2	Prepare final accounts based on above data

Assessment Criteria

File	Marks
Initiative, cooperativeness and participation	2
Creativity in presentation	2
Content, observation and research work	4
Analysis of situations	4
Viva	8
Total Marks	**20**

I. P.

MONTH	TOPIC
April May June	1. Introduction to Computer System
	2. Python Fundamentals
	3. Data Handling
	4. Conditional And Iterative Statements
July	
July - August	5. String Manipulation
	6. List Manipulation
	7. Tuples
	8. Dictionaries
	9. Introducing Python Modules
September	
October - November	10. Introducing Numpy
	11. Numpy 1D array
	12. 2D array Arrarys
	13. Slice, joins and subsets
	14. Arithmetic operations on 2D array
November	
December	15. RELATIONAL DATABASES
	16. MySQL and SQL
	17. Some MySQL SQL Elements
	18. Making Simple Queries
	19. Table Creation and Data Manipulation Commands
January	20. MySQL Function
	21. Table Creation and Data Manipulation Commands
	22. Table Joins and Indexes in SQL
	23. Cyber Safety
	24. Solutions to Computer Security Threats
	REVISION
February	
Theory Paper 70 marks + Practical Work 30 marks	

I.P.

Practical work: Practical File, Project File and Viva-Voce

Practical Marks: 30 Marks

Exam	Topics
Block Test 1	Data Types and Variables
	Operators and Types
	Conditional Statement
	Iterative Statements
	Lists, tuples and dictionary
	String Manipulations
	Python Modules.
	NumPy 1D Array
	NumPy 2D Array
	Arithmetic Operations on 2D Arrays
Block Test 2	DDL SQL Commands
	DML SQL Commands
	Single Table Query Commands
	Multiple Table Query Commands
	Aggregate functions

Assessment Criteria

Description	Marks
Python Programs	6
Problem solving using NumPy	4
SQL Query Programs	5
Practical File	6
Project File	5
Viva voce	4
Total	**30**

GEOGRAPHY

INDIA PHYSICAL ENVIRONMENT

MONTH	UNIT	TOPIC	SUB TOPIC
April	7	India Location	"Location, Space Relation and India's Place in The World"
May & June	8	Physiography	Structure and Relief
			Physiographic Divisions
			Drainage Systems : Concept of River Basins, Watershed
			The Himalayan and Peninsular Rivers
July	9	Climate, Vegetation and Soil	Weather and Climate- Spatial and Temporal Distribution of Temperature, Pressure, Winds and Rainfall. Indian Monsoon, Mechanism, Onset and Withdrawal, Variability of Rainfall; Spatial And Temporal and Use of Weather Charts.
UT 1			
August	9	Climate, Vegetation and Soil	Natural Vegetation - Forest Types and Distribution, Wildlife, Conservation and Biosphere Reserves.
September	**Revision and Block Test 1**		
October	9	Climate, Vegetation and Soil	Soils - Major Soil Types [Icar's Classification] and Distribution, Soil Degradation and Conservation
November	**UT 2**		
December	10	Natural Hazards	"Hazards and Disasters : Causes, Consequences and Management - Floods and Cloudbursts"
January	**UT 3**		
	10	Natural Hazards	"Droughts : Types and Impact. Earthquake and Tsunami. Cyclones - Features and Impact. Landslides"
February	**Revision and Block Test II**		
Theory Paper 70 Marks + Practical Work 30 Marks			

GEOGRAPHY

FUNDAMENTALS OF PHYSICAL GEOGRAPHY

MONTH	UNIT	TOPIC	SUB TOPIC
April	1	Geography As A Discipline	Definition
			Significance, integration and branches
	2	The Earth	Early theories, modern theories of the evolution of the earth.
			Formation of Galaxy, Stars and Planets.
			Evolution of the three Realms and the origin of life.
May	2		Direct and indirect source of information, Structure of the earth.
			Earthquake and Volcanoes - cause and features.
June	2		Theory of Continental Drift
			Sea floor spreading.
			Plate Tectonics and types of Plate Movements.
July	**UT 1**		
	3	Landforms	Rocks and Minerals- Types,characteristics and Rock Cycle.
			Classification, Weathering, mass wasting, erosion and deposition and soil formation.
			Landforms and their evolution - a brief erosional and depositional features
August	4	Climate	Composition and structure of the atmosphere. Solar Radiation and Heat balance. Horizontal and vertical distribution of pressure.
			General Circulation And Various Types Of Winds."
September	**REVISION AND BLOCK TEST 1**		
October	4	Climate	Evaporation, Condensation, Dew, Fog, mist and Frost.
			Clouds and its types.
			Precipitation and the types of rainfall
			Koppen's Climatic classification.
			Climate change and global warming.
November	**UT 2**		
	5	Water (Oceans)	Basics of oceanography; distribution of temperature and salinity. Movements of ocean water - waves, tides and currents
December		Water (Oceans)	submarine relief; ocean resources and pollution
January	**UT 3**		
	6	Life on The Earth	Types of Ecosystem - their functions
			World Biomes
			Bio diversity, importance and factors.
			Loss of biodiversity.
	Revision		
February	**Revision and Block Test 2**		

GEOGRAPHY

Practical work, Practical File and Viva

Practical Marks: 30 Marks

Exam	Topics	Sub Topics
Block Test 1	Fundamentals of Maps	Introduction to Maps. Geo spatial data,
		concept of geographical data matrix - point, line area data
		Map Scale - consruction of simple linear scale
		Latitudes, Longitudes and Time
		Map Projections - conical with 2 standard parallels and mercators
Block Test 2	Topograhical Maps and Weather Maps	Contours and Interpretation of Topographical Maps
		Weather Instruments, Maps and Charts
		Introduction to Aerial Photographs
		Introduction to Remote Sensing

Assessment Pattern

File	Marks
Fundamentals of Maps	15
Topographical Maps and Weather Maps	10
Practical Note book and Viva	5
Total	**30**

HISTORY

MONTH	UNIT	CHAPTER	BROAD TOPICS
April	1	From the Beginning of Time	1. The Story of Human Evolution 2. Early Human Ways of Obtaining Food
			3. Early Humans
			4. Modes of Communication
			5. Hunter-Gatherer Societies
May	2	Writing and City Life	1. Mesopotamia and its Geography
			2. The Significance of Urbanism
			3. The System of Writing and Literacy
			4. Life in the City
June	3	An Empire Across Three Continents	1. The Early Empire
			2. The Third Century Crisis
			3. Gender, Literacy, Culture
			4. Economic Expansion
June	**UT 1**		
July	4	The Central Islamic Lands	1. The Rise of Islam in Arabia
			2. The Caliphate:
			3. The Umayyad and the Centralization of Polity
			4. The Abbasid Revolution
			5. Break up of the Caliphate and the Rise of the Sultanates
			6. The Crusades
	5	Nomadic Empires	1. Social and Political Background
			2. The Career of Genghis Khan
			3. The Mongols after Genghis Khan
			4. Social, Political and Military Organization
August	6	The Three Orders	1. Introduction to Feudalism
			2. The Three Orders
			3. Factors Affecting Social and Economic Relations
			4. The 14th century Crisis
September	**Revision and BT I**		
October	7	Changing Cultural Traditions	1. Revival of the Italian Towns
			2. Artists and Realism
			3. Debates within Christianity
November	8	Confrontation of Cultures	1. State Systems of Central and South America
			2. Atlantic Crossing
			3. Conquest, Colonies and Slave Trade
	9	The Industrial Revolution	1. Why Britain?
			2. Changed Lives
			3. Protest Movements
November	**UT 2**		

HISTORY

MONTH	UNIT	CHAPTER	BROAD TOPICS
Dec ember	10	Displacing Indigenous Peoples	1. European Imperialism
			2. Encounter with the Europeans
			3. Gold Rush
			4. Australia
January	**UT 3**		
January	11	Paths to Modernization	1. Japan
			2. China
	Revision		
February	**Revision and BT 2**		
Theory Paper 80 marks + Practical Work 20 marks			

HISTORY

Practical work: Project File and Viva

Practical Marks: 20 Marks

Exam	Topics
Block Test 1 (Any one) (basic structure of the project and viva)	Anthropological Research based on Darwin's Theory
	Critique of the industrialisation in Britain
	Relation and impact of the Crusades
	The making and unmaking of Mesopotamia
	Aspirations of women in the Renaissance period
Block Test 2 (Complete project with pictures and decorations)	Piecing together the past of Genghis Khan
	Any other topic of the student's choice

Assessment Criteria

File	Marks
Project synopsis	2
Data/Statistical analysis/Map work	3
Visual/ Overall presentation	5
Analysis/ Explanation and Interpretation	5
Bibliography	1
Viva	4
Total	**20**

POLITICAL SCIENCE

MONTH	UNITS/	BOOK 1
	Chapters	INDIAN CONSTITUTION AT WORK
April- May	1	Constitution: Why and How and the Philosophy of the Constitution
		Functions and role of the constitution Definition , Making of the Indian constitution, Composition of the Constituent Assembly, Inheritance of the Nationalist Movement,
	2	Rights of the Indian Constitution-the importance of Rights,
		Bill of Rights, Fundamental Rights in the Indian Constitution,
June	2	**Rights of the Indian Constitution (contd.)**
		- Directive Principles of State Policy, Relationship between Fundamental Rights and Directive Principles
	3	Elections and Representation-Elections and Democracy
		Election System in India, Reservation of Constituencies, Free and Fair Elections, Universal Franchise and the Right to Contest, Independent Election Commission, Electoral Reforms
	4	Executive- Meaning and Types of Executive, Parliamentary Executive in India, Powers and Position of the President, Presidents role in Choosing the Prime Minister, Discretionary Powers of the President, Prime Minister and the Council of Ministers, Permanent Executive- The Bureaucracy
July	5	Legislature- The Necessity of a Parliament, Two Houses of Parliament- Rajya Sabha and Lok Sabha, Function of the Parliament, Parliament control over the Executive, Function of the Parliamentary Committees, Self-regulation of the Parliament
	6 .	Judiciary - Necessity of an Independent Judiciary, Appointment of Judges, Removal of Judges, Structure of the Judiciary, Jurisdiction of the Supreme Court, Judicial Activism, Judiciary and Rights, Judiciary and Parliament
	7	Federalism- Division of Powers, Conflicts in India's Federal System, Role of Governors and President's rule, Interstate Conflict, Special Provisions- the case of Jammu and Kashmir
	UT 1	
August	8	Local Governments- Necessity of Local Governments, Growth of Local Governments in India, 73rd and 74th Amendments, Implementation of these Amendments, Financing of the local bodies
	9	Constitution as a Living Document- Are constitutions static?
		Amendment of Constitution , Contents of the Amendments
		Basic Structure and Evolution, Contribution of the Judiciary
		Maturity of the Political Leadership
September	**REVISION and BLOCK TEST 1**	
	Book 2- POLITICAL THEORY	
October	1	Political Theory - An Introduction: Necessity of Studying Political Theory, Putting Theory to Practice.
	2	Freedom: The ideal of Freedom, Meaning, Constraints of Freedom, Harm Principle, Positive and Negative Liberty, Freedom of Expression
November	3	Equality: Importance, Meaning, Equality of Opportunities, Natural and Social Inequalities, political equality, Promoting equality, Affirmative Action

POLITICAL SCIENCE

MONTH	UNITS	BOOK 1
November	4	Social Justice: Meaning, Equal treatment for Equals, Proportional Justice, Recognition of Special Needs, Just Distribution, John Rawl's theory of Justice, Pursuing Social Justice, Free Market Vs. State Intervention
	5	Rights: Meaning, Where do rights come from, Legal Rights and States, Kind of Rights, Rights and Responsibilities
	UT 2	
December	6	Citizenship- Full and Equal Membership, Equal Rights, Citizen and Nation, Universal Citizenship, Global Citizenship
	7	Nationalism- Introduction, Nation and Nationalism, Shared Beliefs, Common Political Identities, National Self-determination, Nationalism, Pluralism, Tagore's ideas on Nationalism
January	8	Secularism- Meaning, Intra-religious domination, Secular State, Western model of Secularism, Indian Model, Criticism of Indian Secularism
	9	Peace - Meaning, How to establish peace, Violence and Peace
	10	Development-Meaning, Existing Models, Alternative Models
	UT3	
February	**REVISION AND BLOCK TEST 2**	
Theory Paper 80 Marks + Practical Work 20 Marks		

POLITICAL SCIENCE

Practical work: Project File and Viva

Practical Marks: 20 Marks

Exam	Topics
Block Test 1 (Any one)	Role Play
	Academic presentation
	Mock Drill/Mock Event
	Model
	Wall magazine
Block Test 2 (Any one)	Field Survey
	Research Project file
	Skit

Assessment Criteria

File	Marks
Project	
Initiative, participation and team work	2
Creativity	2
Research work	2
Content and observation	2
Analysis of the topic of research	2
Viva	10
Total	**20**

PSYCHOLOGY

MONTH	UNIT	TOPIC
April	1	**What is Psychology?**
		❖ Introduction
		❖ Understanding mind and behavior
		❖ Disciplines of Psychology
		❖ Evolution of Psychology
		❖ Development of Psychology in India
		❖ Themes of Research
		❖ Psychology in everyday life
	2	**Methods of Enquiry in Psychology**
		❖ Introduction
		❖ Goals of psychological enquiry
		❖ Nature of psychological data
		❖ Methods
		❖ Analysis of data and basic statistics
		❖ Limitations of psychological enquiry
		❖ Ethical issues
		PRACTICAL
		Report on any ONE method of psychological enquiry taking everyday examples
May	3	**Human Development**
		❖ Meaning
		❖ Factors
		❖ Context
		❖ Overview of stages
		PRACTICAL
		Model based on stages of development/neuron/any sense modality/human brain
		Memory
June	**UT 1**	
	4	**The Bases of Human Behavior**
		❖ Evolutionary perspective
		❖ Biological basis
		♍ Structure of neuron
		❖ Endocrine system and their relationship with behavior
		❖ Heredity
		❖ Cultural basis
		❖ Enculturation and Socialization
		❖ Acculturation
July	5	**Sensory, Attentional and Perceptual Processes:**
		❖ Nature and varieties of stimulus
		❖ Sense modalities
		❖ Attentional processes

PSYCHOLOGY

MONTH	UNIT	TOPIC
July	5	❖ Perceptual processes
		❖ Perceiver
		❖ Principles of perceptual organization
		❖ Constancies
		❖ Illusions
		❖ Socio-cultural influences
August	6	**Learning**
		❖ Nature of learning
		❖ Classical conditioning
		❖ Operant conditioning
		❖ Observational learning
		❖ Cognitive learning
		❖ Verbal learning
		❖ Concept learning
		❖ Skill learning
		❖ Transfer of learning
		❖ Factors facilitating learning
		❖ Learner styles
		❖ Learning disabilities
		❖ Applications of learning principles
		PRACTICAL
		Learning
	7	**Human Memory**
		❖ Nature of memory
		❖ Theories
		❖ Types
		❖ Causes of forgetting
		❖ Enhancing memory
September	**REVISION FOR BT 1**	
October	8	**Thinking**
		❖ Nature and process
		❖ Problem solving, reasoning, decision making
		❖ Creative thinking nature and process
		❖ Thought and language
November	9	**Motivation and Emotional:**
		❖ Nature and types of motives
		❖ Theories
		❖ Theories of emotion
		❖ Cultural basis of emotions
		❖ Managing emotions
		❖ Enhancing emotions

PSYCHOLOGY

MONTH	UNIT	TOPIC
		PRACTICAL
		A project on CREATIVITY
December-January	9	Revision
		PRACTICAL
		PPT presentation on any topic from the syllabus
		Survey based on observation
January	**UT 2**	
	REVISION	
February	**REVISION AND BLOCK TEST II**	
Theory Paper 70 Marks + Practical Work 30 Marks		

PSYCHOLOGY

Practical work: Project File and Viva

Practical Marks: 30 Marks

Exam	Topics
Block Test 1 (All are compulsory)	Report on any ONE method of psychological enquiry taking everyday examples
	Model based on stages of development/neuron/any sense modality/ human brain
	Students to conduct practical to test the span of Memory
Block Test 2 (All are compulsory)	PPT presentation on any topic from the syllabus
	Practical on RI and PI

Assessment Criteria

File	Marks
Practical file	5
Project file and models	5
Power Point Presentation	5
Conduction of two practicals	10
Viva	5
Total	**30**

PHYSICAL EDUCATION

Month	Unit	Topic	Sub Topic
April	1	Changing Trends & Career In Physical Education	Meaning & definition of Physical Education
			Aims & Objectives of Physical Education
			Competitions in various sports at national and international level
			Career Options in Physical Education
			Khelo India program
May	2	Olympic Value Education	Indian Olympic Association
			Olympics Symbols, ideas, objectives & values of olympism
			Olympics.Paraolympics and Special Olympics
			International Olympic Committee
June	3	Phisical Fitness, Wellness & Lifestyle	Meaning & Importance Of Physical Fitness, Wellness & Lifestyle
			Components of physical fitness & wellness
			Components of Health related fitness
Unit Test 1			
July & August	4	Physical Education & Sports for CWSN (Children with Special Needs - Divyang)	Aims & objectives of Adaptive Physical Education
			Organization promoting Adaptive Sports (Special Olympics Bharat; Paralympics; Deaflympics)
			Concept of Inclusion, its need and Implementation
			Role of various professionals for children with special needs (Counsellor, Occupational Therapist, Physiotherapist, Physical Education Teacher, Speech Therapist & special Educator)
Block Test			
September	5	Yoga	Meaning & Importance of Yoga
			Elements of Yoga
			Introduction - Asanas, Pranayam, Meditation & Yogic Kriyas
			"Yoga for concentration & related Asanas (Sukhasana; Tadasana; Padmasana & Shashankasana, Naukasana, Vrikshasana Garudasana (Eagle pose)
			Relaxation Techniques For Improving Concentration – Yog-Nidra"
			Relaxation Techniques for improving concentration – Yog-nidra

PHYSICAL EDUCATION

Month	Unit	Topic	Sub Topic
October	6	Physical Activity & Leadership Training	Leadership Qualities & Role of a Leader
			Creating leaders through Physical Education
			Meaning, objectives & types of Adventure Sports (Rock Climbing, Tracking, River Rafting, Mountaineering, Surfing and Para Gliding
			Safety measures during physical activity and adventure sports
Unit Test 2			
November	7	Test, Measurment & Evaluation	Define Test, Measurement & Evaluation
			Importance of Test, Measurement & Evaluation In Sports
			Calculation of BMI & Waist - Hip Ratio
			Somato Types (Endomorphy, Mesomorphy & Ectomorphy)
			Measurement of health related fitness
December	8	Fundamentals Of Anatomy, Physiology & Kinesiology in Sports	Defination and importance of Anatomy, Physiology & kinesiology
			Function of Skeleton System, Classification of Bones & Types of Joints
			Properties & Functions of Muscles
			Function & Structure of Respiratory System, Mechanism of Respiration
			Equilibrium – Dynamic & Static and Centre of Gravity and its application in sports
December & January	10	Psychology & Sports	Definition & Importance of Psychology in Phy. Edu. & Sports
			Define & Differentiate Between Growth & Development
			Adolescent Problems & Their Management
			Developmental Characteristics at Different Stages of Development
Unit Test 3			
January	11	Training & Doping in Sports	❖ Meaning & Concept of Sports Training
			❖ Principles of Sports Training
			❖ Warming up & limbering down
			❖ Skill, Technique & Style
			Prohibited Substances & their side effects
			Concept & classification of doping
			❖ Dealing with alcohol and substance abuse
February	**Revision And Block Test 2**		

PHYSICAL EDUCATION

Practical Marks: 30 Marks

Exam	Topic/ Test	Mark
Block Test 1	Physical Fitness test	6
	Skill test	7
	Yogic practices	7
	Record files	5
	Viva	5
	Total	**30**
Block Test 2	Physical Fitness test	6
	Skill test	7
	Yogic practices	7
	Record files	5
	Viva	5
	Total	**30**