Text Books

Subject	Book	Publication
Core English (301)	Hornbill: Text Book Core Course	NCERT
	Snapshots: Supplementary Reader Core Course	NCER
	Novel: The Canterville Ghost	APC
Mathematics (041)	A text book for Class XI	NCERT
Physics (042)	A Text Book for Class XI Part I	NCERT
	A Text Book for Class XI Part II	NCERT
	Lab Manual	NCERT
Chemistry (043)	A Text Book for Class XI Part I	NCERT
	A Text Book for Class XI Part II	NCERT
	Lab Manual (Comprehensive)	Laxmi
Biology (044)	A Text Book of Class XI	NCERT
	Lab Manual	Arya
Economics (030)	Indian Economics Development	NCERT
	Statistics for Economics by N M Shah	Arya Book Depot
Computer Science (083)	C++ for Class XI by Sumita Arora	Dhanpat Rai & Co.
Physical Education (048)	Health and Physical Education XI	Saraswati
	Practical File	Saraswati

NOTEBOOKS/STATIONERY

Subject	Register	Practical File/ Graph Book
English	2	-
Mathematics	4	1 (Graph Pad)
Physics	4	1 Record book by Classmate
Chemistry	3	1 Record book by Classmate
Biology	2	-
Economics	3	-
Computer Science	2	-
Physical Education	1	1

English

MONTH: APRIL

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Introduction of core English, Grammar, PSA **Hornbill – Poem** **Writing Skills**			• Introduction of core English **PSA** • Antonyms, Synonyms • Analogies **Grammar** • Modals, Tenses, Determiners	**Grammar** • Active Passive Voice • Clauses **Writing Skills** • Notice	• Figures of Speech **Hornbill** • A Photograph **Grammar** • Editing / Omitting • Re-ordering of Sentences
Learning Objectives	To enable the students to - • communicate effectively • develop and integrate the use of four language skills • develop interest in and appreciation of literature				
Expected Learning Outcome	• Appropriate use of Grammar • Accuracy in speech and writing • Practice for PSA • Appreciation of Poetry				
Teaching Aids	• PSA Sample Papers, Assignments				
Assessment	• Working with words • Sharing of childhood experiences				

MONTH: MAY

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Hornbill – Prose **Snapshots - Lesson** **Writing Skills** **Grammar** **Novel**	**Hornbill** • The Portrait of a Lady **Writing Skills** • Introduction to Note Making	**Snapshots** • The Summer of the Beautiful White Horse **Writing Skills** • Note Making	**Grammar** • Dialogue Completion **Novel** • Introduction to the Novel and the author • Chapters 1-2	**Writing Skills** • Letter to the Editor • Notice (Revision) **Novel** • Chapters 3-4

Learning Objectives	To enable the students to - • appreciate the literary text • write in a style appropriate for communicative purposes • summarise or make notes from a given text
Expected Learning Outcome	• Understanding and appreciation of various themes • Analysing the universality of theme • Focus on portrayal of character • Enhancing written expression
Teaching Aids	• PPT, Newspaper, Reference Book
Assessment	• Classroom discussion on human relations • Working with words • Writing Assignments

MONTH: JULY

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Novel **Hornbill – Prose, Poem** **Writing Skills** **Snapshots - Lesson** **Grammar** **Reading Skills**	**Writing Skills** • Poster Making **Snapshots** • The Address	**Hornbill** • We are not afraid to die…… **Writing Skills** • Article Writing	**Hornbill** • The Voice of the Rain **Snapshots** • Ranga's Marriage	**Novel** • Chapters 5-7 **Writing Skills** • Letter of Placing Order / Complaint **Reading Skills** • Note Making - Practice	**Cycle Tests**
Learning Objectives	To enable the students to - • read silently at varying speed • identify the main points of a text • anticipate and predict what will come next in a text • ananlyse, interpret and infer the poem • read extensively on their own				
Expected Learning Outcome	• Understanding of the content in the contemporary context				

	• Effects of war on human behaviour • Understanding of human behaviour in different situations • Learning some interesting combination of words used in the text • Understanding the virtues of love, compassion and sympathy • Appreciation of nature through poetry • Appreciation of humour in the text
Teaching Aids	• Assignment, Newspaper, Sample Posters, PPT
Assessment	• Classroom discussion, writing assignments

MONTH: AUGUST

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Snapshots- Lesson **Writing Skills** **Grammar** **ASL – Term 1**	**Writing Skills** • Introduction to Advertisement Writing **Snapshots** • The Tale of Melon City	**Snapshots** • The Tale of Melon City (Contd.) **Writing Skills** • Poster • Advertisement	**ASL** • Practice for Speaking & Listening Skills **Writing Skills** • Report Writing **Grammar** • Sentence Transformation	• **ASL (Term 1)**
Learning Objectives	To enable the students to - • plan, prganise and present ideas coherently • use an appropriate style and format to write a letter/report • interpret the poem by relating the theme to the present-day context • understand and interpret spontaneous spoken discourse in familiar social situations			
Expected Learning Outcome	• Knowledge of specific terminology • Focus on formats • Learning to use formal language • Listen for information required for specific purpose			
Teaching Aids	• PPT, ASL Reference Material, Newspaper			
Assessment	• Classroom discussion, writing assignments			

MONTH: SEPTEMBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Speaking & Listening Skills **Assessment** **Term Exam - I**	**Writing Skills** • Letter Writing – Official letters on school related issues and Business Letters	**Revision**	**Term Exam I**	**Term Exam I**	• Discussion of answer sheets

MONTH: OCTOBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Hornbill – Prose **Snapshots – Lesson** **Grammar** **Writing Skills**	**Hornbill** • Discovering Tut **Writing Skills** • Article	**Hornbill** • The Ailing Planet **Writing Skills** • Poster	**Grammar Practice** **Snapshots** • Albert Einstein at School	**Writing Skills** • Job Application (Introduction)
Leaning Objectives	To enable the students to - • sensitise the students towards deteriorating environment • relate the learners' knowledge of the historical facts to the text • recode information from one text type to another eg. advertisement to letter • write coherently by introducing, developing and concluding a topic			
Expected Learning Outcome	• Appreciation and analysis of historical facts • Understanding the need to save environmental degradation • Childhood experiences of the greatest physicist • Portrayal of characters in a play			
Teaching Aids	• Role play, Reference Book, Internet, PPT, Newspaper			
Assessment	• Writing task, Classroom discussion, Role play, Research work			

MONTH: NOVEMBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Hornbill - Poem, Prose **Writing Skills** **Grammar** **Reading Skills** **ASL – Term 2**	**Hornbill** • Childhood **Writing Skills** • Narrative **Reading Comprehension**	**Grammar** • Editing, Omission, reordering of words/phrases, • Gap filling	**Hornbill** • The Browing Version **Writing Skills** • Letter Writing – Asking for & giving Information / Making Enquiries	**Writing Skills** • Letter Writing – Asking for & giving Information / Making Enquiries • **ASL – Term 2**
Learning Objectives	To enable the students to - • be able to relate to the poet's feelings as a child • revise and reinforce structures already learnt • enhance creativity through written tasks • appreciate the literary piece of work			
Expected Learning Outcome	• Appreciation of poetry • Appropriate use of grammar • Understanding and analysing teacher-student relationship • To write in a precise, formal language • Enhancing reading skills			
Teaching Aids	• PPT, Internet, Reference Material, CBSE ASL Material			
Assessment	• Writing a narrative, practice of grammar exercises			

MONTH: DECEMBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Hornbill – Poem **Snapshots - Lesson** **ASL – Term 2** **Writing Skills** **Reading Skills**	**Speaking and Listening Skills (ASL – Term 2**	**Hornbill** • Father to Son **Writing Skills** • Speech **Note Making**	**Snapshots** • Mother's Day **Writing Skills** • Article, Speech Writing	**Snapshots** • Birth **Grammar** • Practice	**Revision** **Cycle Tests**

Learning Objectives	To enable the students to - • sensitise the learners towards the growing generation gap • be able to generate ideas to think beyond the text • broaden the learners' imagination • write precisely in a given format
Expected Learning Outcome	• Understanding of human emotions and one's rights • Appreciating the noble profession of a doctor • Appreciating the virtues of sincerity and determination • Comprehension of proper formats and content
Teaching Aids	• PPT, Newspaper, Reference Book
Assessment:	• Class Discussion, Assignments

MONTH : JANUARY

Content/ Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**
Novel **Writing *S*kills**	**Winter Break** **Cycle Tests**	**Winter Break** **Cycle Tests** **Novel** • Recapitulation of Charactersketches	**Writing *S*kills** • Report Writing • Letter Writing • Narrative	**Writing Skills** • Advertisements • Poster • Notice • Article/Speech
Learning Objectives	To enable the students to - • revise and reinforce structures already learnt • think on their own and express their ideas using their knowledge and imagination			
Expected Learning Outcome	• Self-montoring • Enhancement of writing skills			
Teaching Aids	• PPT, Newspaper, Reference Book			
Assessment	• Classroom Discussion, assignments			

MONTH: FEBRUARY

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Revision	• Revision • Literature	• Revision • Reading Skills • Note Making • Grammar	• Revision • Novel	• Revision
Learning Objectives	• To express ideas in clear grammatically correct English, using appropriate punctuation & cohesion devices			
Expected Learning Outcome	• Understand and respond appropriately to directive language			
Teaching Aids	• Sample Papers, Newspaper			
Assessment	• Assignments, Revision tests			

MONTH: MARCH

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Revision	**Term –II Exam**	**Term –II Exam**	**Term –II Exam**	Paper Discussion	Achiever's Day

Mathematics

MONTH: APRIL

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter 1: Sets **Chapter 2 :** Relation and Functions			• Sets and their representations • Empty set. Finite and Infinite sets • Equal sets, Subsets • Subsets of a set	• Power set, Universal set & Venn diagrams • Union and Intersection of sets • Difference of sets. Complement of a set. • Properties of Complement Sets	• Ordered pairs, Cartesian product of sets • Concept of Relation/function, domain, co-domain and range of a relation/function • Various types of functions Sum, difference, product and quotients of functions • Special functions
Learning Objective	To enable the students to - • learn about sets & their representation • understand different types of sets • understand relation between elements of 2 sets • understand functions & its range, domain				
Expected Learning Outcome	Students would be able to - • learn sets & their representation • understand different types of sets • learn about relation between element of 2 sets • understand function, its domain & range				
Assessment/ Activity	• Class and Home Assignment • By Detailed Questioning from the Students in Class room Teaching				
Teaching Aids /Resources	• Smart Board, Exemplar NCERT				

MONTH: MAY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter 3: Trigonometry **Chapter 5 :** Complex Numbers	• Domain & Range of various Functions • Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another	• Signs of rigonometric functions • Values of Different Trigonometric functions for various angles • Domain, range & Graph of trigonometric functions • Expressing sin ($x\pm y$) and cos ($x\pm y$) in terms of sin$x$, sin$y$, cos$x$ & cos$y$	• Deducing the identities • General solution of trigonometric equations • Proof and simple applications of sine and cosine formulae	• Need for complex numbers • Algebraic properties of complex numbers • Argand plane and polar representation of complex numbers • Solution of Quadratic equations in the complex number system
Learning Objective	To enable the students to - • understand functions & its range, domain • learn about the different units of measurement of an angle • understand signs of trigonometric functions • solve trigonometric ratio of compound angles & trigonometric equations • understand imaginary numbers • How to apply different properties of complex numbers			
Expected Learning Outcome	Students would be able to- • learn different units of an angles • understand the signs of trigonometric functions • learn how to solve trigonometric equations • understand complex numbers & would apply properties. • understand function, its domain & range			
Assessment/ Activity	• Class and Home Assignment • By Detailed Questioning from the Students in Class room Teaching			
Teaching Aids /Resources	• Smart Board, Exemplar NCERT			

MONTH: JULY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter 6 : Linear Inequalities **Chapter 7 :** Permutation & Combinations	• Concept of inequality • Algebraic solutions of linear equalities in one variable and their graphical representation • Solution of linear inequalities in two variables graphically	• Applications of Linear Inequalities • Fundamental principle of counting • Permutations when all the objects are distinct. • Factorial Notation	• Permutations when the objects are not distinct. • Combinations and its properties Problems of permutations and combinations together	Revision	**Cycle Tests**
Learning Objective	To enable the students to - • find the solution of linear inequality algebraically and graphically • understand and apply the concept of P & C in daily life				
Expected Learning Outcome	Students would be able to - • find the solution of linear inequality algebraically and graphically • apply the concept of P & C in daily life.				
Assessment/ Activity	• Class and Home Assignment • By Detailed Questioning from the Students in Class room Teaching				
Teaching Aids /Resources	• Smart Board, Exemplar NCERT				

MONTH: AUGUST

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter 8 : Binomial Theorem **Chapter 9:** Sequence & Series **Chapter 10:** Straight Line	• Introduction of Binomial Theorem • Binomial theorem for positive integer n. • General Term, Middle term of binomial expansion	• Applications of binomial expansion • Concept of Arithmetic Progression, Arithmetic Mean (A.M.)	• Geometric Progression (G.P.), General term of a G.P., Sum of *n* terms of a G.P • Infinite G.P. and its sum • Geometric mean (G.M.), Relation between A.M. and G.M. Sum to *n*- terms of the special series	• Slope of a line • Condition for parallelism and perpendicularity of lines in terms of their slopes • Co-linearity of 3 points • Angle between two lines • Various forms of the equation of a line

Learning Objective	To enable the students to - • apply binomial theorem in solving algebraic equations • understand arithmetic & geometric progression and their application • understand the concept of slope • learn different forms of a line & its application
Expected Learning Outcome	Students would be able to- • learn to apply binomial theorem in solving algebraic equations • understand arithmetic & geometric progression and their application • understand the concept of slope • learn different forms of a line & its application
Assessment/ Activity	• Class and Home Assignment • By Detailed Questioning from the Students in Class room Teaching
Teaching Aids /Resources	• Smart Board, Exemplar NCERT

MONTH: SEPTEMBER

Content/Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**	**5th Week**
Chapter 10: Straight Line	• Reduction of Ax + By +C =0 into (a) Slope intercept form (b) Intercept form (c) Normal Form • Distance of a point from a line • Distance between two parallel lines. • Revision for Term End Exam - I	Revision	**Term End Exam - I**	**Term End Exam - I**	Discussion of Answersheet
Learning Objective	To enable the students to - • convert/reduce one form of line into other • find the distance between a point & a line • find the distance between two parallel lines				
Expected Learning Outcome	Students would be able to – • convert/reduce one form of line into other				

	• find the distance between a point & a line • find the distance between two parallel lines
Assessment/ Activity	• Class and Home Assignment • By Detailed Questioning from the Students in Class room Teaching
Teaching Aids /Resources	• Smart Board, Exemplar NCERT

MONTH: OCTOBER

Content/Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**
Chapter 11: Conic Sections **Chapter 12:** Introduction To 3-D Geometry **Chapter 13:** Limits & Derivatives	• Different sections of a cone • Standard equations and simple properties of Circle, parabola, ellipse	• Concept of Hyperbola along with its properties • Concept of Octants, Coordinates of a point in space • Distance between two points • Section Formula • Centroid of a triangle	• Derivative introduced as rate of change both as that of distance function and geometrically • Intutive idea of limit.	• Concept of limit of a function • Left hand limit • Right hand limit • Limits of polynomials
Learning Objective	To enable the students to - • understand the meaning of conic section • differentiate between circle, parabola, ellipse, & hyperbola • understand the concept of three dimensional geometry and its properties. • understand the concept of limits			
Expected Learning Outcome	Students would be able to – • understand the meaning of conic section • differentiate between circle, parabola, ellipse , hyperbola. • understand the concept of three dimensional geometry and its properties. • understand the concept of limits			
Assessment/ Activity	• Class and Home Assignment • By Detailed Questioning from the Students in Class room Teaching			
Teaching Aids /Resources	• Smart Board, Exemplar NCERT			

MONTH: NOVEMBER

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter 13 : Limits & Derivatives	• Limits of rational function, trig. Function, exponential function, logarithmic function	• Concept of derivative	• Derivative of polynomial function using first principle • Derivative of Trig. Function, exponential function, logarithmic function using first principle	• Derivative of sum, difference, product, quotient of two functions • Chain Rule
Learning Objective	To enable the students to - • critically analyze the notion of limits & solve various limits • apply their knowledge for finding the derivative of functions			
Expected Learning Outcome	Students would be able to – • critically analyze the notion of limits & solve various limits • apply their understanding in the application of calculus.			
Assessment/ Activity	• Class and Home Assignment • By Detailed Questioning from the Students in Class room Teaching			
Teaching Aids /Resources	• Smart Board, Exemplar NCERT			

MONTH: DECEMBER

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter 14 : Mathematical Reasoning	• Mathematical statements • Negative statement • Compound/Component Statement	• Inclusive and exclusive "or" • Contra positive and converse	Revision	Revision	Revision **Cycle Tests**
Learning Objective	To enable the students to - • differentiate between mathematical statement and a statement • understand the concept of concept of compound, contra positive statements				
Expected Learning Outcome	Students would be able to- • differentiate between mathematical statement and a statement • understand the concept of compound, contra positive statements				
Assessment/ Activity	• Class and Home Assignment • By Detailed Questioning from the Students in Class room Teaching				
Teaching Aids /Resources	• Smart Board, Exemplar NCERT				

MONTH: JANUARY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter 15 : Statistics **Chapter 16 :** Probability	**Winter Break** **Cycle Tests**	**Winter Break** **Cycle Tests** • Meaning of Range • Mean deviation about a) Mean	• Mean deviation about b) Median c) any point 'a' • Variance • Standard Deviation • Coefficient of Variation	• Random Experiment • Outcomes and Sample Space • Types of events • Mutually Exclusive & Exhaustive • Axiomatic approach to probability
Learning Objective	To enable the students to - • analyze and apply measure of dispersion • find the probability of various events			
Expected Learning Outcome	Students would be able to – • critically analyze and apply their knowledge of measure of dispersion • find the probability of various events			
Assessment/ Activity	• Class and Home Assignment • By Detailed Questioning from the Students in Class room Teaching			
Teaching Aids /Resources	• Smart Board, Exemplar NCERT			

MONTH: FEBRUARY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter 4 : Principle of Mathematical Induction	• Probability of various events under different conditions • Concept of Mathematical Induction • Problems based on P.M.I.	Revision	Revision	**Term End-II Exam**
Learning Objective	• To understand Induction method			
Expected Learning Outcome	• Students would be able to apply induction method			
Assessment/ Activity	• Class and Home Assignment • By Detailed Questioning from the Students in Class room Teaching			
Teaching Aids /Resources	• Smart Board, NCERT (Text-Book), Exemplar NCERT & Black Board			

MONTH: MARCH

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Revision	**Term –II Exam**	**Term –II Exam**	**Term –II Exam**	Paper Discussion	Achiever's Day

Science
Physics

MONTH:APRIL

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter -1 Physical World **Chapter -2** Units & Measurement			**Chapter-1** • Introduction • Nature of Physical laws **Chapter -2** • Units of measurement; systems of units • Fundamental and derived units	**Chapter -2** • Dimensions of physical quantities • Dimensional analysis and its applications	**Chapter -2** • Accuracy and precision of measuring instruments • Errors in measurement • Significant figures
Practical	• Any one experiment* (list of Experiments and Activities attached at the end of syllabus)				
Learning Objectives	To enable the students to - • differentiate between fundamental and derived units • understand applications of dimensional analysis. • understand how errors combine in different mathematical operations as combination of errors				
Expected Learning Outcomes	Students would be able to: • write dimensional formula for given physical quantities • differentiate between, accuracy and precision in measurements • differentiate between systematic errors and random errors				
Teaching Aids	• Charts/Powerpoint Presentations				
Assessment	• Class Assignments, Home Assignments				

MONTH : MAY

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter -3: Motion in a Straight Line **Chapter -4 :** Motion in a Plane	**Chapter -3** • Position-time graph, speed and velocity • Uniform and non-uniform motion • Average speed and instantaneous velocity • Uniformly accelerated motion • Velocity-time and position-time graphs	**Chapter -3** • Relations for uniformly accelerated motion (graphical treatment) • Elementary concepts of differentiation and intergration for describing motion • Relative velocity in One-dimension.	**Chapter -4** • Scalar and vector quantities • Position and displacement vectors • Equality of vectors • Laws of vector addition- triangle & parallelogram law	**Chapter -4** • Relative velocity • Unit vector • Resolution of a vector in a plane - rectangular components

Practical	• Any one experiment*
Learning Objectives	To enable the students to – • differentiate between average and instantaneous velocity • obtain "equations of motion" for a uniformly accelerated motion • understand laws of vector addition
Expected Learning Outcomes	Students would be able to: • draw position-time and velocity-time graphs for a uniform motion • interpret the type motion from x-t, v-t & a-t graphs • solve problems using equations of motion and relative velocity.
Teaching Aids	• Charts/Powerpoint Presentations
Assessment	• Class Assignments, Home Assignments

MONTH : JULY

Content/ Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**	**1st Week**
Chapter -4: Motion in a Plane **Chapter -5:** Laws of Motion	**Chapter -4** • Projectile Motion • Uniform circular motion	**Chapter -5** • Inertia • Newton's laws of motion • Law of conservation of linear momentum and its applications • Equilibrium of concurrent forces	**Chapter -5** • Static and kinetic friction • laws of friction • rolling friction • Centripetal force	**Chapter -5** • Circular motion - vehicle on level circular road, vehicle on banked road • Revision	**Mid-Term-I**
Practical	• Any two experiments*				
Learning Objectives	To enable the students to – • state the three laws of motion • understand the types of friction • understand the motion of vehicle on a curved level road and banked road				
Expected Learning Outcomes	The students would be able to: • solve problems related to impulse and change in momentum • explain the graphical variation of friction v/s applied force • explain the motion of a vehicle on banked road and appreciate how the banking of roads can help to reduce the wear & tear of tyres.				
Teaching Aids	• Charts/PowerPoint Presentations				
Assessment	• Class Assignments, Home Assignments				

MONTH : AUGUST

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter - 6: Work, Energy & Power **Chapter -7:** Rotational Motion	**Chapter -6** • Work done by a constant force and a variable force • Kinetic energy, work-energy theorem • Power • Potential energy • Conservation of mechanical energy	**Chapter -6** • Potential energy of a spring • Conservative forces, non-conservative forces • Motion in a vertical circle	**Chapter -6** • Elastic and inelastic collisions in one and two dimensions **Chapter -7** • Centre of mass of a two-particle system • Momentum conservation and centre of mass motion.	**Chapter -7** • Torque • Angular momentum • Law of conservation of angular momentum and is application • Equilibrium of rigid bodies
Practical	• Any two experiments*			
Learning Objectives	To enable the students to – • differentiate between conservative and non-conservative forces • distinguish between elastic and inelastic collisions, with examples • distinguish between the centre of mass and the centre of gravity of a rigid body			
Expected Learning Outcomes	The students would be able to: • give examples of conservative & non-conservative forces • solve problems on motion in a vertical circle • solve problems on calculation of centre of mass for a system of particles			
Teaching Aids	• Charts/PowerPoint Presentations			
Assessment	• Class Assignments, Home Assignments			

MONTH : SEPTEMBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter -7: Rotational Motion	**Chapter -7** • Moment of inertia, radius of gyration • Parallel and perpendicular axes theorems and their applications	**Chapter -7** • Rolling without slipping • Revision	**Term-I Exam**	**Term-I Exam**	**Chapter -8** • The universal law of gravitation • Properties of gravitational force
Prcactical	• Any one experiment*				

Learning Objectives	To enable the students to – • understand the moment of inertia of different bodies (shapes) • differentiate between gravitational potential energy and gravitational potential
Expected Learning Outcomes	The students would be able to: • apply the theorems of parallel and perpendicular axis in appropriate given situations • obtain expression for the kinetic energy of rolling motion
Teaching Aids	• Charts/PowerPoint Presentations
Assessment	• Class Assignments, Home Assignments

MONTH : OCTOBER

Content/ Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**
Chapter -8 : Gravitation **Chapter -9:** Mechanical Properties of Solids **Chapter -10:** Mechanical Properties of Fluids	**Chapter -8** • Acceleration due to gravity and its variation with altitude and depth • Gravitational potential energy and potential • Escape velocity • Orbital velocity of a satellite • Geo-stationary & Polar satellites, Kepler's laws	**Chapter -9** • Elastic behavior • Stress-strain relationship • Hooke's law • Young's modulus • bulk modulus • shear modulus of rigidity	**Chapter -10** • Pressure due to a fluid column • Pascal's law and its applications (hydraulic lift and hydraulic brakes)	**Chapter -10** • Viscosity, Stokes' law • terminal velocity • Streamline and turbulent flow • Reynold's number & critical velocity
Practical	• Any two experiments*			
Learning Objectives	To enable the students to – • differentiate between gravitational potential energy and gravitational potential • differentiate between different types of stress • understand the concept of friction in the context of fluids in motion • differentiate between streamline and turbulent flow			
Expected Learning Outcomes	The students would be able to: • explain the variation of 'g' with depth, altitude, rotation of earth etc. • describe how different moduli of elasticity correspond to different kinds of stress and strain			

	• explain how pascal's law is applied in hydraulic lifts and breaks. • describe why a raindrop would attain a terminal velocity as it descends under gravity
Teaching Aids	• Charts/PowerPoint Presentations
Assessment	• Class Assignments, Home Assignments

MONTH : NOVEMBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter -10: Mechanical Properties of Fluids **Chapter -11:** Thermal Properties of Matter	**Chapter -10** • Bernoulli's theorem and its applications • Surface energy and surface tension • angle of contact, • application of surface tension ideas to drops, bubbles • Capillary rise	**Chapter -11** • Heat& temperature • Thermal expansion of solids, liquids and gases • anomalous expansion of water	**Chapter -11** • Specific heat capacity, Cp, Cv • Calorimetry • Change of state - latent heat capacity • Heat transfer-conduction, convection and radiation	**Chapter -11** • Thermal conductivity • Newton's law of cooling • Qualitative ideas of Blackbody radiation • Wien's displacement Law, • Stefan's law
Practical	Any two experiments*			
Learning Objectives	To enable the students to – • define surface tension and relate it to surface energy • comprehend the concept of latent heat • differentiate between conduction, convection, and radiation.			
Expected Learning Outcomes	The students would be able to: • list some of the common applications of Bernoulli's principle • describe anomalous expansion of water • describe the phenomenon of black body radiation and list some examples in our daily life			
Teaching Aids	• Charts/PowerPoint Presentations			
Assessment	• Class Assignments, Home Assignments			

MONTH : DECEMBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter -12: Thermodynamics **Chapter -13:** Kinetic Theory of Gases	**Chapter -12** • Thermal equilibrium • Zeroth law of thermodynamics • Heat, work and internal energy • First law of thermodynamics • Isothermal and adiabatic processes	**Chapter -12** • Second law of thermodynamics • Reversible and irreversible processes. • Heat engine • Refrigerator • Carnot Engine	**Chapter -13** • Kinetic theory of gases - assumptions, concept of pressure • Kinetic interpretation of temperature • degrees of freedom • law of equipartition of energy	Revision	**Cycle Tests**
Practical	• Any two experiments*				
Learning Objectives	To enable the students to – • understand the concept of adiabatic, isothermal, isobaric and isochoric processes • understand that a refrigerator can be viewed as the reverse of heat engine • To recognize that pressure in a gas originates from kinetic energy of the molecules • understand the concept of *degrees of freedom*				
Expected Learning Outcomes	The students would be able to: • give examples of reversible and irreversible processes • draw P-V diagrams for isothermal, isobaric, isochoric and adiabatic process • describe kinetic interpretation of temperature • find the degrees of freedom for monoatomic and diatomic gases				
Teaching Aids	• Charts/PowerPoint Presentations				
Assessment	• Class Assignments, Home Assignments				

MONTH : JANUARY

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter -14: Oscillations **Chapter -15:** Waves	**Winter Break** **Cycle Tests**	**Winter Break** **Cycle Tests** **Chapter -14** • Periodic motion - time period, frequency, displacement as a function of time • Periodic functions	**Chapter -14** • Simple harmonic motion (S.H.M) and its equation; phase • oscillations of a spring–restoring force and force constant • Kinetic and potential energies of S.H.M.	**Chapter -14** • Simple pendulum • Free, forced and damped oscillations, resonance. **Chapter -15** • Wave motion- Transverse and longitudinal waves
Practical	• Any two experiments*			
Learning Objectives	To enable the students to – • comprehend the concept of phase • derive equations of displacement, velocity & acceleration of a particle executing SHM.			
Expected Learning Outcomes	The students would be able to: • graphically show the phase difference between displacement, velocity & acceleration of a body executing SHM • give examples of damped and undamped oscillations			
Teaching Aids	• Charts/PowerPoint Presentations			
Assessment	• Class Assignments, Home Assignments			

MONTH :FEBRUARY

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter -15: Waves	**Chapter -15** • Speed of wave motion • Displacement relation for a progressive wave • Principle of superposition of waves • reflection of waves	**Chapter -15** • Standing waves in strings • Organ pipes fundamental mode and harmonics • Beats • Doppler effect	Revision	Revision
Practical	• Practice of the experiments			

Learning Objectives	To enable the students to – • understand the terms representing amplitude, phase, angular frequency and the wave number in the equation for a travelling wave • state and interpret the expression for the speed of transverse waves on a stretched string and the speed of longitudinal waves in air • understand the conditions for formation of stationary/standing waves • explain the phenomenon of beats
Expected Learning Outcomes	The students would be able to: • differentiate between progressive and stationary waves • describe the concepts of normal modes of oscillation, fundamental mode and harmonics • recognize the nodes and the antinodes in a stationary wave
Teaching Aids	• Charts/PowerPoint Presentations
Assessment	• Class Assignments, Home Assignments

MONTH: MARCH

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Revision	**Term –II Exam**	**Term –II Exam**	**Term –II Exam**	Paper Discussion	Achiever's Day

List of Experiments and Activities

Practicals

The record to be submitted by the students at the time of their annual examination has to include:

1. Record of at least 15 Experiments [with a minimum of 6 from each section], to be performed by the students.
2. Record of at least 5 Activities [with a minimum of 2 each from section A and section B], to be demonstrated by the teachers.
3. The Report of the project to be carried out by the students.

SECTION–A

Experiments

1. To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Callipers and hence find its volume.
2. To measure diameter of a given wire and thickness of a given sheet using screw gauge.

3. To determine volume of an irregular lamina using screw gauge.
4. To determine radius of curvature of a given spherical surface by a spherometer.
5. To determine the mass of two different objects using a beam balance.
6. To find the weight of a given body using parallelogram law of vectors.
7. Using a simple pendulum, plot its L-T2 graph and use it to find the effective length of second's pendulum.
8. To study variation of time period of a simple pendulum of a given length by taking bobs of same size but different masses and interpret the result.
9. To study the relationship between force of limiting friction and normal reaction and to find the co-efficient of friction between a block and a horizontal surface.
10. To find the downward force, along an inclined plane, acting on a roller due to gravitational pull of the earth and study its relationship with the angle of inclination θ by plotting graph between force and $\sin\theta$.

Activities (for the purpose of demonstration only)

1. To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.
2. To determine mass of a given body using a meter scale by principle of moments.
3. To plot a graph for a given set of data, with proper choice of scales and error bars.
4. To measure the force of limiting friction for rolling of a roller on a horizontal plane.
5. To study the variation in range of a projectile with angle of projection.
6. To study the conservation of energy of a ball rolling down on an inclined plane (using a double inclined plane).
7. To study dissipation of energy of a simple pendulum by plotting a graph between square of amplitude and time.

SECTION–B

Experiments

1. To determine Young's modulus of elasticity of the material of a given wire.
2. To find the force constant of a helical spring by plotting a graph between load and extension.
3. To study the variation in volume with pressure for a sample of air at constant temperature by plotting graphs between P and V, and between P and 1/V.
4. To determine the surface tension of water by capillary rise method.
5. To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body.
6. To study the relationship between the temperature of a hot body and time by plotting a cooling curve.

7. To determine specific heat capacity of a given solid by method of mixtures.
8. To study the relation between frequency and length of a given wire under constant tension using sonometer.
9. To study the relation between the length of a given wire and tension for constant frequency using sonometer.
10. To find the speed of sound in air at room temperature using a resonance tube by two resonance positions.

Activities (for the purpose of demonstration only)

1. To observe change of state and plot a cooling curve for molten wax.
2. To observe and explain the effect of heating on a bi-metallic strip.
3. To note the change in level of liquid in a container on heating and interpret the observations.
4. To study the effect of detergent on surface tension of water by observing capillary rise.
5. To study the factors affecting the rate of loss of heat of a liquid.
6. To study the effect of load on depression of a suitably clamped metre scale loaded at (i) its end (ii) in the middle.
7. To observe the decrease in presure with increase in velocity of a fluid.

Chemistry

MONTH: APRIL

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Unit-1: Some Basic Concept of Chemistry			• Introduction and importance of chemistry. • Properties of Matter • Laws of Chemical Combination • Dalton's atomic theory • Atomic and molecular masses • Mole concept	• Reactions in solutions • Definition of Mass %,Molarity and molality • Mole fraction and Limiting reagent • Importance of these terms • Numerical Practices related to mole concept (Stoichiometric calculations)	• Numerical Practices related to mole concept. **(Contd).** • Numericals related to Empirical and Molecular formula. • **Assignment / NCERT Text Book problems**
Practical	• Preliminary tests of qualitative analysis.				
Learning Objectives	To understand- • the Laws of chemical combination • mole concept • percentage composition and stoichiometric calculations.				
Expected Learning Outcomes	Students would be enable to - • recall & use the properties of mole concept to solve the stoichiometric problems. • apply the relationship between E.F. & M.F. to find out the Molecular formula of a compound.				
Assessment/ Activity	• Class discussion, Class and Home assignment.				
Teaching Aids /Resources	• Smart Board/Science Magazine				

MONTH: MAY

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Unit-2: Structure of Atom **Unit-14:**Environmental Chemistry	• Structure of atom:-Sub-atomic particles • Atomic models • Nature of Electromagnetic radiation • Planck's quantum theory	• Particle nature of electromagnetic radiation. • Photoelectric effect • Features of atomic spectra	• de-Broglie equation • Heisenberg Uncertainty Principle • Numerical based on these topics	• Atomic Orbital in term of Quantum Numbers • Shape of orbitals • Pollutants and its effects. • Green chemistry • **Assignment/NCERT Text Book problems**

Practical	• Preliminary tests of qualitative analysis.
Learning Objectives	To know about - • the Bohr's model of atom and different terms used in wave theory. • the features of atomic spectra. • the atomic orbital in terms of quantum number. • green chemistry
Expected Learning Outcomes	Students would be able to • explain the important features of the quantum mechanical model of atom. • dual nature of matter, line spectra and importance of orbit and orbital. • understand the harmful effects of pollutants and importance of green chemistry
Assessment/ Activity	• Classroom discussion, Home assignment and class test.
Teaching Aids /Resources	• Smart Board, chart or power point presentation/Journal or science magazine

MONTH: JULY

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Unit-3: Classification of Elements and Periodicity in Properties. **Unit-9:** Hydrogen	**Unit-3:** • Introduction of Classification of elements • Periodic law • Atomic No. and electronic cofiguration • Unique position of Hydrogen in periodic table.	• Trends in the periodic properties of elements. • Ionization enthalpy and factors. • Electronegativity, Electron gain enthalpy • Valence of elements • **Assignment/NCERT Text Book problems**	**Unit-9:** • Isotopes of Hydrogen • Preparation, properties and uses of Hydrogen • Hydrides and hardness of water. • **Assignment/NCERT Text Book problems**	Revision	**Cycle Tests**
Practical	• Identification of acid radicals (Dilute H_2SO_4 /HCl test)—CO_3^{2-} ,S^{2-} ,SO_3^{2-}, NO_2^-				
Learning Objectives	To familiarize the students with- • modern periodic law • the periodic trends in physical and chemical properties of elements. • unique position of hydrogen • hydrides and their classification				
Expected Learning Outcomes	Students would be able to • write the electronic configurations of atoms. • compare the reactivity of elements and correlate it with their occurrence in nature.				

	• explain the relationship between the ionization enthalpy and metallic character. • know the chemical behavior of dihydrogen • differenciate between hard and soft water and removal of hardness.
Assessment/ Activity	• Group quiz on periodic properties of elements and classroom discussion.
Teaching Aids /Resources	• Smart Board and Periodic Table or Chart.

MONTH: AUGUST

Content/ Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**
Unit-4: Chemical Bonding and Molecular structure. **Unit-5:** States of Matter: gases and Liquids.	**Unit 4:** • Lewis approach • Ionic and covalent bonds • Formal charge • Bond parameters	• Resonance structures • Dipole moment • VSEPR theory and its application with reference to some examples.	• Valence Bond Theory • Hybridization and its types • M.O. Theory in homonuclear diatomic molecules. • Hydrogen bonding and its types. • **Assignment/NCERT Text Book problems**	**Unit-5:** • Intermolecular forces and thermal energy. • Gas laws and their significance • Numericals based on these laws.
Practical	• Identification of acid radicals (Concentration H_2SO_4 test)- Cl^-, Br^-, I^-, CH_3COO^- & NO_3^-,			
Learning Objectives	To enable the students to - • develop understanding about the different types of bonds. • familiarizing students with the directional properties of covalent bonds and the bond order of diatomic molecules • understand states of matter based on Intermolecular forces and thermal energy • explain the gas laws governing behavior of ideal gases.			
Learning Outcomes	Students would be able to - • predict the geometry of molecules with the help of VSEPR theory, dipole moment and hybridization. • understand the stability of different molecules or ions with help of bond order. • use the concept of hydrogen bonding on the structure & properties of many compounds. • apply the gas laws in real life situation			
Assessment/ Activity	• Class discussion, Home and assignment and class written work.(structure of molecules)			
Teaching Aids /Resources	• Smart Board, chart /Journal or Science magazine.			

MONTH: SEPTEMBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Unit-5: States of Matter: gases and Liquids.	• Kinetic molecular theory of gases & its postulates. • Behaviour of real gases • **Assignment/NCERT Text Book problems**	Revision	**Term -I Exam**	**Term -I Exam**	• Surface tension, viscosity and their applications
Practical	• Independent radicals tests—SO_4^{2-}, PO_4^{3-} , Basic radicals-Group Zero, II and III.				
Learning Objectives	To understand- • the postulates of kinetic molecular theory of gases • the causes of deviation from ideal behaviour. • intermolecular forces in liquid state.				
Learning Outcomes	Students would be enble to • know about the elastic behavior of gas molecules and compressibility of gases • explain the liquefaction of gases • know the factors for the deviation of gases from ideal behavior • explain the properties of liquids in terms of intermolecular forces.				
Assessment/ Activity	• Classroom discussion, Home assignment and class written work.				
Teaching Aids /Resources	• Smart Board , chart and group quiz.				

MONTH: OCTOBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Unit-6: Thermodynamics **Unit-7 :** Equilibrium	**Unit 6:** • First Law of thermodynamics and state functions. • Enthalpy change of different type of reactions and numericals.	**Unit-6:** • Spontaneous and non-spontaneous reactions. • Entropy as state function. • Free energy. • **Assignment/NCERT Text Book problems**	**Unit-7:** • Introduction and general characteristics of equilibrium. • Dérivation of Kp & Kc . • Le-chatelier's principle & factors. • Different concepts of Acids, bases • Ionization constant of water, weak acid and base. • pH scale	**Unit-7:** • Numerical practice. • Buffer solutions and its types.
Practical	• Identification of basic radicals-Group-IV ,V and VI			

Learning Objective	To understand - • the terms System, surroundings & different thermodynamic properties like Δ U , ΔH and ΔS • law of equilibrium and characteristics • classify acids and bases in terms of different concepts • concept of Ionic and solubility product and their difference.
Learning Outcome	Students would be able to • use the thermodynamic terms to solve the numerical. • apply the concept of entropy for spontaneity of reaction. • know the importance of factors on the direction of equilibrium to control the yield of products. • appreciate the use of buffer solution and common ion effect in qualitative analysis.
Assessment/ Activity	• Classroom discussion, Home assignment and class test.
Teaching Aids /Resources	• Smart Board and group quiz.

MONTH: NOVEMBER

Content/ Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**
Unit-7 : Equilibrium **Unit-8:** Redox Reactions. **Unit-12:**Organic Chemistry- Some Basic Principles & Techniques	**Unit-7:** • Equilibrium of sparingly soluble salts **Assignment/NCERT Text Book problems**	**Unit-8:** • Concept of oxidation and reduction. • Use of the concept of Oxidation number. • Oxidizing and reducing agent.	**Unit-8:** • Types of redox reactions • Balancing of Redox reactions using the concept of oxidation No. • Electrode processes. • Balancing of Redox reactions and Electrode processes. (Contd.) • **Assignment/ NCERT Text Book problems**	**Unit-12:** • Nomenclature of organic compounds & isomerism • Fundamental concepts in organic reaction mechanisms.
Practical	• Volumetric analysis			
Learning Objectives	Familiarizing the students to - • learn the concept of redox reactions in terms of electrode processes. • balance the ionic equations using Oxidation no. and ion-electron method. • develop the ability to write the name(IUPAC) of organic compounds. • the fundamental concepts used in Organic reaction mechanism .			
Learning Outcomes	Students would be able to • find out the oxidizing and reducing agent with the help of oxidation number. • know the importance of standard electrode potential in determining the reducing or oxidizing power.			

	• apply the different electron displacement effects in organic reactions.
Assessment/ Activity	• Classroom discussion, Home assignment and Practical test in chemistry laboratory.
Teaching Aids /Resources	• Smart Board and group quiz.

MONTH: DECEMBER

Content/ Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**	**5th Week**
Unit-12: Organic Chemistry- Some Basic Principles & Techniques.	**Unit 12:** • Electron displacement effects (Contd.) • Inductive effect, • Resonance effect • Electrometric effect	• Hyper conjugation effect • **Assignment/NCERT Text Book problems**	• Methods of purification.	Revision	**Cycle Tests**
Practical	• Volumetric analysis				
Learning Objectives	Familiarizing the students with - • The ability to write the stability of different organic compounds. • Different methods of purification.				
Learning Outcomes	Students would be able to - • Use the fundamental concepts in reaction mechanisms. • Apply the common techniques for the purification of organic compounds.				
Assessment/Activity	• Classroom discussion, Home assignment and Class written work.(Nomenclature of organic compounds)				
Teaching Aids /Resources	• Smart Board and group quiz.				

MONTH: JANUARY

Content/ Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**
Unit-13: Hydrocarbons	**Cycle Tests**	**Cycle Tests** **Unit-13:** • Various method for Preparation of hydrocarbons (alkanes, alkenes and alkynes).	**Unit-13:** • Physical and chemical properties. • Conformations of Ethane • Aromaticity and structure of benzene.	• Physical properties &chemical reactions. • Directive influence of substituent in Benzene ring. • **Assignment/NCERT Text Book problems**

Practical	• Unknown Salt analysis/Revision			
Learning Objectives	To understand - • the methods of preparations of hydrocarbons • the physical and chemical behavior of different hydrocarbons.			
Learning Outcomes	Students would be enble to - • solve the different organic conversions. • distinguish the compounds by chemical tests. • draw the different orbital diagrams.			
Assessment/ Activity	• Classroom discussion, Home assignment and class written work (Nomenclature practice).			
Teaching Aids /Resources	• Smart Board and group quiz.			

MONTH: FEBRUARY

Content/ Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**
Unit-10: s-Block Elements **Unit-11:** Some p-Block Elements	**Unit-10:** • General Characteristics of Group 1 and 2. • Compounds of Na, K, Mg &Ca. • **Assignment/NCERT Text Book problems**	• General characteristics of group 13 and 14. • Important compounds of B, Al, C and Si. • **Assignment/NCERT Text Book problems**	Revision	Revision
Practical	• Unknown Salt analysis practices/Volumetric analysis (Revision)			
Learning Objectives	• To understand general characteristic of s and p- Block elements, Oxidation states and trends in chemical reactivity.			
Learning Outcomes	Students would be able to - • write reactivity of alkali & alkaline earth metals towards O_2 or air, acids and bases and halogens and anomalous properties to the subsequent members of the same group.			
Assessment/ Activity	• Classroom discussion, Home assignment and class written work.			
Teaching Aids /Resources	• Black Board and group quiz.			

MONTH: MARCH

Content/ Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**	**5th Week**
Revision	**Term –II Exam**	**Term –II Exam**	**Term –II Exam**	Paper Discussion	Achiever's Day

Biology

MONTH: APRIL

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter-1: Living World **Chapter-2:** Biological Classification			**Class XI joins Chapter-1** • Introduction to the syllabus • Living world • Taxonomical -hierarchy • Binomial nomenclature • Taxonomical aids	**Chapter-2** • Systems of classification • Five kingdom classification • Salient features of all kingdoms.	**Chapter-2 contd** • Viruses and viriods • Lichens
Practicals	• Nature walk to get acquainted with the flora & fauna of the school				
Learning Objectives	To enable the students to – • understand the concept of living • arrange organisms sequentially according to their hierarchy • understand the characteristics of five kingdoms of life • appreciate why viruses are on the borderline of living and nonliving				
Expected Learning Outcomes	Students would be able to – • appreciate the meaning of life • allot a hierarchial position to each family or taxa • apply his knowledge about various organisms in treatment of diseases				
Teaching Aids	• Assignments, PowerPoint presentations, diagrams				
Assessment	• Assignments, worksheets, class discussions, tests				

MONTH: MAY

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter-3: Plant Kingdom **Chapter-4 :** Animal Kingdom **Chapter-5** Morphology of Flowering Plants	**Chapter-3** • Algae, bryophytes, • Ptreridophytes, • Gymnosperms and angiosperms	**Chapter-3** • Plant life cycles and alternation of generation. **Chapter-4** • Levels of classification, symmetry, body cavity	**Chapter-4 cont.** • Phylum wise description of all animals upto invertebrata	**Chapter-5** • Morphology • Root-structure, function and modification • Stem, origin, modifications and functions
Practicals	• Study and describe three locally available common flowering plants, one from each of the families Solanaceae,			

	Fabacceae and Liliaceae including dissection and display of floral whorls. • Study of the specimens/slides/models and identification with reasons Bacteria, Oscillatoria, Spirogyra, Rhizopus, Mushroom, Yeast, Liverwort, Moss, Fern, Pine, one monocotyledonous plant and one dicotyledonous plant and one lichen. • Study of specimens/slides/models and identification with reasons - Amoeba, Hydra, Liverfluke, Ascaris, Leech, Earthworm • Study of specimens/slides/models and identification with reasons -prawn, silkworm, honeybee, snail, starfish, shark,rohu, frog, lizard, pigeon and rabbit.
Learning Objectives	To enable the students to understand the – • important features and life cycles of different plant divisions • concept of alternation of generation • effect of various factors on health of human beings • various levels of classification in animals • important features of various organisms
Expected Learning Outcomes	Students would be able to– • correlate life cycles of different plant divisions with their geographical distribution • apply the concept of alternation of generation in ploidy levels • correlate modern lifestyle with the poor health of human beings in today's scenario • understand the various levels of classification in animals • correlate and appreciate the presence of various features in animals
Teaching Aids	• Assignments, smart class modules, diagrams
Assessment	• Assignments, worksheets, class discussions, tests

MONTH: JULY

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week

Chapter-5 Morphology of Flowering Plants **Chapter-6** Anatomy of Flowering Plants **Chapter-7** Structural Organization in Animals	**Chapter-5 contd** • Leaf,structure, • Functions • modifications, phyllotaxy, venation and inflorescence • Parts of flower aestivation description of flower and families- Solanaceae, • Fabaceae and Liliaceae	**Chapter 6** • Meristematic and permanent tissues, simple and complex tissues	**Chapter 6** • Anatomy of dicot and monocot root. • Secondary growth.	**Chapter-7** • Animal tissues- epithelial, connective, muscular and neural tissues • Organ and organ systems • Morphology and anatomy of cockroach and earthworm • Anatomy and morphology of frog	**Cycle Tests**

Practicals	• Study of tissues and diversity in shapes and sizes of plant and animal cells (palisade cells, guard cells, parenchyma, collenchyma, sclerenchyma, xylem, phloem, squamous epithelium) • muscle fibers and mammalian blood smear) through temporary/permanent slides. • Study and identification of different types of inflorescence (cymose and racemose) • Preparation and study of T.S. of dicot and monocot stems (primary). • Study of different modifications in root, stem and leaves. • Study of external morphology of cockroach through specimens/models.
Learning Objectives	To enable the students to understand the – • importance of each part of the plant • and differentiate different types of leaves • various leaf patterns • distinguish between different types of inflorescence • anatomical origin and importance of all plant structures • different types of tissues and their organization. • role of .different tissues in metabolic activities • internal organization of different animal forms
Expected Learning Outcomes	Student would be able to – • correlate the importance of each part of the plant with respect to its location • identify and differentiate different types of leaves • identify various leaf patterns according to the phyllotaxy • identify different types of inflorescence • apply the knowledge of anatomical studies in wood and furniture selection • locate the different types of tissues in body. • appreciate the role of .different tissues in metabolic activities
Teaching Aids	• Assignments, smart class modules, diagrams
Assessment	• Assignments, worksheets, class discussions, tests

MONTH: AUGUST

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter-7 Structural Organization in Animals **Chapter-8** Cell:unit of life **Chapter-9** Biomolecules	**Chapter-7** • Anatomy and morphology of frog **Chapter-8** • Types of cells.structure of eukaryotic and prokaryotic cell. • Celltheory, structure and functions of various cell	**Chapter -8 contd.** • Organelles- plasma membrane,golgibodies and mitochondria • Chloroplast nucleus, lysosomes, types of chromosomes	**Chapter-9** • Concept of macromolecules, primary and secondary metabolites • Proteins, polysachharides	**Chapter-9 contd** • Nucleic acids, structure of proteins, metabolism, enzymes and their types.
Practicals	• Test for the presence of sugar, starch, proteins and fats. To detect these in suitable plant and animal materials.			
Learning Objectives	To enable the students to understand the - • meaning of cell theory • structure and function of various cell organelles • role of various macromolecules in the functionality of the living organisms • various properties of enzymes • effect of various factors on enzyme activity • stages and the importance of the two types of cell division.			
Expected Learning Outcomes	Student would be able to– • apply cell theory in various aspects of life • locate cell organelles according to their function • understand the role of various macromolecules in the functionality of the living organisms • apply the various properties of enzymes in our daily life • correlate the effect of various factors on enzyme activity • correlate the roles of various enzymes in controlling and coordinating various metabolic activities • sequentially understand the stages and the importance of the two types of cell division. • apply the knowledge of cell division in cell renewal in injuries and in understanding cancer.			
Teaching Aids	• Assignments, smart class modules, diagrams			
Assessment	• Assignments, worksheets, class discussions, tests			

MONTH: SEPTEMBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter -10 Cell and Cell Division **Chapter-11** Transport In Plants **Chapter -12** Mineral Nutrition	**Chapter -10** • Cell cycle • Phase of cell cycle • Mitosis and its importance • Meiosis and its importance • Types of cytokinesis	**Chapter -11** • Steps involved in ascent of sap,cohesion- tension theory,role of water potential,transpiration • opening and closing of stomata,guttation	**Term -I Exam**	**Term -I Exam**	**Chapter-12** • Essentiality of an element
Practicals	• Study of mitosis in onion root tips cell from permanent slides. • Study of osmosis by potato osmometer • Study of plasmolysis in epidermal peels (e.g. Rhoeo leaves)				
Learning Objectives	To enable the students to understand the – • stages and the importance of the two types of cell division. • difference between cytokinesis in plant and animal cells • steps involved in ascent of sap • how opening and closing of stomata takes place				
Expected Learning Outcomes	Student would be able to – • apply the knowledge of cell division in tissue culture • appreciate the ascent of sap in extremely tall trees • understand the need of anti transpirants in some areas • correlate the role of potassium ions in opening and closing of stomata with its chemical nature				
Teaching Aids	• Assignments, smart class modules, diagrams				
Assessment	• Assignments, worksheets, class discussions, tests				

MONTH: OCTOBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter-12 Mineral Nutrition **Chapter-13** Photosynthesis **Chapter-14** Respiration in Plants	**Chapter-12** Cont**.** • Hydroponics, hungersigns, funtions and deficiency symptoms of various elements. • mobility of various elements	**Chapter-13** • History of photosynthesis, modern equation of photosynthesis, light reaction.	**Chapter-13** contd. • Dark reaction, discovery of calvin cycle • C3 and C 4 plants, photorespiration	**Chapter-14** • Glycolysis and fermentation • TCA cycle, ETS.

Practicals	• Separation of plant pigments through paper chromatography. • Study of distribution of stomata in the upper and lower surface of leaves • Comparative study of the rates of transpiration in the upper and lower surface of leaves
Learning Objectives	To enable the students to understand the – • importance of various elements in plants • concept of hydroponics • sequence of events in light and dark reactions • difference between C3 and C4 plants • steps involved in glycolysis and krebs cycle • cellular respiration in plants and energy production
Expected Learning Outcomes	Students would be able to– • appreciate the importance of various elements to sustain life • apply the concept of hydroponics in studying deficiency symptoms • locate and correlate the importance of various pigments in light and dark reactions • identify the Kranz anatomy and differentiate between C3 and C4 plantson its basis • sequentially learn the steps in glycolysis and krebs cycle • appreciate the role of cellular respiration in plants and energy production • appreciate the fact that respiratory pathway is both anabolic as well as catabolic in nature
Teaching Aids	• Assignments, smart class modules, diagrams
Assessment	• Assignments, worksheets, class discussions, tests

MONTH: NOVEMBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter-15 Plant Growth and Development **Chapter-16** Digestion and Absorbption	**Chapter-14 contd** • Oxidative phosphorylation,respiratory balance sheet • Amphibolic pathways and RQ **Chapter-15** • Growth, phase of growth, growth rates, conditions for growth	**Chapter-15 Cont**. • Development PGRs	**Chapter-15 Cont.** • Physiological effects of plant growth regulators, • photoperidism, • vernalization **Chapter-16** • Digestive system and organs involved in digestion in man.	**Chapter-16 Cont**. • Digestive glands • Absorption and assimilation of food • Disorders of digestive system Absorption and assimilation of food, • Disorders of digestive system

Practicals	• To study the rate of respiration in flower buds/leaf tissue and germinating seeds.
Learning Objectives	To enable the students to understand the – • growth pattern in plants • roles of various phytohormones in growth and development • process of digestion • importance of various organs ,glands,tongue and teeth in digestion
Expected Learning Outcome	Students would be able to– • apply the knowledge of phytohormones in the understanding in horticulture • correlate the roles of various enzymes in controlling and coordinating various metabolic activities • sequentially understand the stages of digestion in humans. • appreciate the importance of various organs ,glands,tongue and teeth in digestion • apply his knowledge of digestion in occurrence of diseases
Teaching Aids	• Assignments, power point presentations, diagrams
Assessment	• Assignments, worksheets, class discussions, tests

MONTH: DECEMBER

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter-17: Breathing and Exchange of Gases **Chapter-18:** Body Fluids and Circulation **Chapter-19** Excretory products and exchange of gases	**Chapter-17** • Human respiratory system, mechanism of breathing • respiratory capacity and volume • Exchange of gases • Regulation of respiration, disorders related to respiration	**Chapter-18** • Composition of blood • Blood plasma • Blood groups and blood coagulation • Cardiac cycle and functioning of heart	**Chapter-18 cont.** • ECG • Disorders of circulatory system **Chapter-19** • Human excretory system, structure of nephron, urine formation • Countercurrent mechanism	**Chapter-19 Cont**. • Regulation of blood pressure and kidney function • Micturition • Disorders of excretory system	**Cycle Tests**
Practicals	• To test the presence of urea, sugar, albumin, bile salts in urine. • Study of imbibition in seeds/raisins.				

	• Observation and comments on the experimental set up for showing: • Anaerobic respiration, Phototropism, Apical bud removal, Suction due to transpiration
Learning Objectives	To enable the students to understand – • the functioning of respiratory system • and locate the organs and sequentially arrange the events taking place during respiration • role of heart in circulation • and sequentially arrange the events taking place during one cardiac cycle • and differentiate between a normal ECG and an abnormal ECG • the stages and the importance of different parts of nephron in urine formation. • and locate various bones and joints in the body • the functioning of muscular and skeletal system
Expected Learning Outcomes	Students would be able to– • apply the knowledge of respiratory system in occurrence of diseases • locate the organs according to their functions in respiration • apply the knowledge of heart functioning in various life situations • sequentially arrange the events taking place during one cardiac cycle • differentiate between a normal ECG and an abnormal ECG • sequentially understand the stages and the importance of different parts of nephron in urine formation. • locate various bones and joints in the body • understand the functioning of muscular and skeletal system
Teaching Aids	• Assignments, power point presentations, diagrams
Assessment	• Assignments, worksheets, class discussions, tests

MONTH: JANUARY

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter-20 Locomotion and Movement **Chapter-21** Neural Control and Coordination	**Winter Break** **Cycle Tests**	**Winter Break** **Cycle Tests** **Chapter-20** • Types of movements, structure of muscular tissue Mechanism of muscle contraction	**Chapter-20** • Skeletal system of man • Types of bones and joints • Disorders of muscular and skeletal system **Chapter-21** • Components of CNS	**Chapter-21** Cont. • Transmission of nerve impulse • Reflex action • Structure of brain
Practicals	• Study of human skeleton and different types of joints			

Learning Objectives	To enable the students to understand the – • functioning of nervous system • organs and sequentially arrange the events taking place during transmission of nerve impulse • role of spinal cord in reflex action • functions of various glands with the disorders that occur in body due to their malfunctioning
Expected Learning Outcomes	Student would be able to– • appreciate how accurately and fast our nervous system works • locate the organs and sequentially arrange the events taking place during transmission of nerve impulse • correlate reflex actions with the role of spinal cord • locate various glands of the body • correlate the functions of various sense organs with the disorders that occur in body due to their malfunctioning
Teaching Aids	• Assignments, smart class module,3D models of ear and brain, animation film on nerve transmission
Assessment	• Assignments, worksheets, classdiscussions, tests

MONTH: FEBRUARY

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter-22 : Chemical Coordination and Integration **OTBA Passage- I and II**	**Chapter-21contd** • Structure and functioning of ear and eye	**Chapter-22** • Location and functions of all the glands in human body. • Diseases due to malfunctioning of various glands in the body. • Mode of action of hormones on cells • **OTBA Passage I and II**	Revision	Revision
Practicals	• Revision of practicals			
Learning Objectives	To enable the students to– • locate various glands of the body • correlate the functions of various glands with the disorders that occur in body due to their malfunctioning • understand the importance of biodiversity in ecosystem stability			
Expected Learning Outcomes	Students would be able to– • locate various glands of the body on a human torso			

	• appreciate the chemical coordination achieved by hormones in our body • correlate the functions of various glands with the disorders that occur in body due to their malfunctioning • appreciate the rich biodiversity in western ghats • apply his knowledge on conservation to take care of environment
Teaching Aids	• Assignments, smart class modules, diagrams
Assessment	• Assignments, worksheets, class discussions, tests

MONTH: MARCH

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Revision	**Term –II ExamI**	**Term –II Exam**	**Term –II Exam**	Paper Discussion	Achiever's Day

Economics

MONTH: APRIL

Content/Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**	**5th Week**
Statistics for Economics 1) Introduction **Indian Economic Development** 2) Indian Economy on the Eve of Independence			Basic Discussion About the Subject. Statistics Introduction 1) Meaning of Economics 2) Various Definitions of Economics 3) Types of Economic Activities. 4) Singular and Plural Sense Definition.	Statistics 1) Functions of Statistics. 2) Limitations of Statistics. 3) Qualitative and Quantitative aspect of data. IED Introduction to Indian Economy on the eve of Independence.	IED Indian Economy on the Eve of Independence 1) Economic System prevailing in India before advent of British rule in India. 2) Economic Policies adopted by the British Regime 3) State of Agriculture Industry & Trade. 4) Demographic Indicators, Infrastructural Development under the British Rule.
Learning Objective	To enable the students to – • understand the basic nature of the Subject of Economics. • understand the meaning, definition, content, scope and nature of statistics. • understand the socio-economic conditions that prevailed under the British Rule. • understand the state of Indian Agriculture, Industry, Trade, Infrastructure etc.				
Expected Learning Outcome	Students would understand the – • basic nature of the Subject of Economics. • meaning, definition, content, scope and nature of statistics. • socio-economic conditions that prevailed under the British Rule. • state of Indian Agriculture, Industry, Trade, Infrastructure etc.				
Assessment/ Activity	• Assignments based on Remembering & Understanding.				
Teaching Aids /Resources	• Smart Class Content Material • ICT • Data sources • Reckoners				

MONTH: MAY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Statistics For Economics 1) Collection of Data Indian Economic Development 2) Indian Economy (1950-1990)	Statistics Collection of Data 1) Primary & Secondary Data and their sources. 2) Key Terms (variable, universe, investigator, respondent etc). 3) Methods of Collecting Primary Data. (DPI, IPI, Questionnaire Méthod etc.)	Statistics Collection of Data 1) Survey Methods – Census and Sampling. 2) Random Sampling Methods and Non-Random Sampling Methods. (Lottery Method, Tippet's Table, Purposive Sampling, Systematic Sampling, Stratified and Non-Stratified etc.)	IED Indian Economy (1950-1990) 1) Introduction 2) Economic Planning – Meaning & duration of various five year plans. 3) Goals of FYP (Growth, Modernization, Self-reliance, Equity) 4) General discussion and instructions about IED Project	IED (OTBA Discussion) Indian Economy (1950-1990) 1) Agricultural Development (Land Reforms, Green Revolution, Debate over Subsidies) 2) Industrial Development (Role of PSUs, IPR-1956, SSI) 3)Trade Policy: Import substitution. Critical appraisal of planning till 1990
Learning Objective	To enable the students to – • understand the concepts related to collection and of data and its importance in statistical analysis. • understand the meaning & definition of various concepts and key terms. • understand the economic conditions that prevailed in the Post Independent India.			
Expected Learning Outcome	Students would understand the – • concepts related to collection of data and its importance in statistical analysis. • meaning & definition of various concepts and key terms. • economic conditions that prevailed in the Post Independence India.			
Assessment/ Activity	• Assignments based on Understanding & HOTS			
Teaching Aids /Resources	• Smart Class Content Material. • ICT • Data sources • Reckoners			

MONTH: JULY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Indian Economic Development Liberalization, Privatisation & Globalisation : An Appraisal: Poverty **Statistics For Economics** Organisation &Presentation of data 1)Tabulation	IED Liberalization, Privatisation Globalisation : An Appraisal 1) Introduction, Reasons for Reforms. 2) NE & its main Features. 3) Liberalisation – Industrial Sector Reforms, Financial Sector Reforms, Tax Reforms, Foreign Sector Reforms, Trade and Investment Policy Reforms	IED Liberalization, Privatisation Globalisation : An Appraisal 1) Privatisation – Meaning & Concept 2) Globalisation – Positive and Negative Traits of Globalistion, Outsourcing, WTO. 3) Arguments in favour and against Economic Reforms.	IED Poverty 1) Introduction and Meaning of poverty. 2) Measures of Poverty (Relative and Absolute). 3) Concept of Poverty Line. 4) Government's Approach to Poverty Removal. 5) PAPs & Critical Evaluation of the PAP's	Statistics Organisation & Collection of data 1) Meaning of classification, features objectives of classification. 2) Key Terms (variables, attributes, population, raw data) 3) Series – Meaning and types, Exclusive v/s Inclusive Series. Statistics Tabulation Introduction, Definition. Objectives, Essential, Parts, Types of Tabulation.	**Cycle Tests**
Learning Objective	To enable the students to understand the– • need of the economic reforms in the erstwhile Indian Economic Scenario along with the meaning & features of NEP/Economic Reforms and arguments in favour and against it. • meaning and features of Liberalisation, Privatisation and Globalisation & their economic consequences. • Concept and content of Poverty, poverty line and its measures. Along with the steps taken by the Government in the direction of Poverty Alleviation. • concept of classification of data & its importance. • Definition, Objectives, Essential, Parts of a table.				
Expected Learning Outcome	Students would understand the – • need of the economic reforms in the erstwhile Indian Economic Scenerio along with the meaning & features of NEP/Economic Reforms and arguments in favour and against it.				

	• meaning and features of Liberalisation, Privatisation and Globalisation & their economic consequences. • concept and content of Poverty, poverty line and its measures. Along with the steps taken by the Government in the direction of Poverty Alleviation. • meaning of classification of data & its importance • Definition, Objectives, Essential, Parts of a table.
Assessment/ Activity	• Assignments Based on Understanding & Application.
Teaching Aids /Resources	• Smart Class Content Material • Articles • Economic Survey

MONTH: AUGUST

Content/Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**
Statistics For Economics 1) Diagrammatic Presentation. 2) Graphic Presentation **Indian Economic Development** 1) Human Capital Formation	Statistics Diagrammatic Presentation. 1) Introduction &Importance. 2) Types of diagrams. 3) One-dimensional diagram. 4) Pie-diagram.	Graphic Presentation. 1) Introduction & construction of graphs. 2) Types of graphs – line frequency, histogram, frequency polygon, frequency curve 3) Ogive curve. 3) Time series graphs (one and two variable).	IED Human Capital Formation 1) Introduction and Meaning. 2) Sources of HCF. 3) HCF and Economic Growth. 4) Role of HCF 5) Problems of HCF	IED Human Capital Formation 1) Educational Sector in India. 2) Achievements of Educational Sector. 3) Future Prospects. 4) Problems of Educational Sector in India.
Learning Objective	To enable the students to understand the – • concepts related to diagrammatic presentation of data, its importance and types (bar and pie diagram). • concepts related to graphic presentation of data, its importance and types. • meaning & sources of HCF. Also the relation between economic growth and HCF. • problems of HCF in India, particularly in the fields of health and education.			
Expected Learning Outcome	Students would understand the – • concepts related to diagrammatic presentation of data, its importance and types (bar and pie diagram). • concepts related to graphic presentation of data, its importance and types. • meaning & sources of HCF. Also the relation between economic growth and HCF. • problems of HCF in India, particularly in the fields of health and education.			

Assessment/ Activity	• Assignments based on Understanding & Application.
Teaching Aids /Resources	• Smart class module • ICT • Reckoner

MONTH: SEPTEMBER

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Statistics for Economics 1) Measures of Central Tendency **Indian Economic Development** 1) Rural Development	Statistics Measures of Central Tendency 1) Meaning & Introduction 2) Arithmetic Mean - Calculation (all types of Series and with all Methods) 3) Mathematical Properties of AM. 4) Merits and Demerits 5) Correction of Arithmetic Mean.	Statistics Measures of Central Tendency 1) Meaning and Calculation of Weighted Mean. 2) Revision for Exams	**Term Exam -I**	**Term Exam-I**	Answer – Sheets Distribution& Discussion
Learning Objective	To enable the students to understand the – • meaning of arithmetic mean and weighted mean, along with their computations. • mathematical properties of AM, along with its merits and demerits.				
Expected Learning Outcome	Students would understand the – • meaning of arithmetic mean and weighted mean, along with their computations. • mathematical properties of AM, along with its merits and demerits.				
Assessment/ Activity	• Assignments Based on Application & HOTS				
Teaching Aids /Resources	• Smart Class Content Material. • Reckoners • ICT				

MONTH: OCTOBER

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Indian Economic Development 1) Rural Development 2) Employment **Statistics for Economics** 1) Partition Values and Positional Averages	IED Rural Development 1) Meaning and Introduction. 2) Rural Credit. 3) Sources of rural Credit and Critical Appraisal. 4) Agricultural Marketing System. 5) Diversification of Agro-Activities. 6) Organic Farming.	Statistics Partition Values and Positional Averages 1) Median 2) Quartiles 3) Mathematical Properties of Median 4) Mode – Meaning and Determination 5) Grouping and Analysis Table Method. 6) Merits and Demerits of mode	IED Employment 1) Introduction, Meaning and Key Terms. 2) Regular and Casual Workers. 3) Growth and Changing structure of Employment. 4) Informalisation of the workforce.	IED Employment 1) Meaning of Unemployment. 2) Types of Unemployment. 3) Causes of Unemployment.
Learning Objective	To enable the students to understand the – • meaning of Rural development & Rural credit • concepts (Rural Credit & Agricultural Marketing System) • meaning & definition of organic farming and its benefits/disadvantages. • meaning of median & quartiles & its computation. • meaning of Employment and related terms, along with the relation between employment generation and growth.			
Expected Learning Outcome	Students would understand the – • concepts rural development, rural credit & Agricultural Marketing System. • meaning & definition organic farming and its benefits/disadvantages. • meaning & computation of positional averages. • meaning of Employment and related terms, along with the relation between employment generation and growth. • concept and types of unemployment& causes of unemployment			
Assessment/ Activity	• Assignments based on Understanding & Application.			
Teaching Aids /Resources	• Smart Class Content Material • Articles • Economic surveys			

MONTH: NOVEMBER

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Indian Economic Development 1)Employment 2)Inflation **Statistics for Economics** 1) Measures of Dispersion	IED Employment 1) Sources of Unemployment Data. 2) Remedial Measures For Unemployment. 3) Government's Policies and Employment Generation - An Appraisal. Inflation 1) Introduction & types of Inflation. 2) Demand Pull and Cost Push Inflation	IED Inflation 1) Causes & Adverse Effect of Inflation. 2) General discussion on Statistics Project (5 marks)	IED Inflation 1) Policies to control Inflation. – Monetary and Fiscal Policies Statistics 1) Meaning and Introduction. 2) Absolute and Relative Measures of Dispersion. 3) Range and Coefficient of Range.	Statistics Measures of Dispersion 1) Average Deviation from Arithmetic Mean and Median. 2) Quartile Deviation. 3) Standard Deviation 4) Specific Instructions on Statistics Project (5 marks)
Learning Objective	To enable the students to understand the – • sources of unemployment data. • remedial measures taken by the government in this direction. • meaning & definition of Inflation and key terms related to it. Along with causes, effects and measures to correct it. • meaning of dispersion and its measures (both absolute and relative). – Range, QD, MD and SD & their coefficients.			
Expected Learning Outcome	Student would understand the – • sources of unemployment data. • measures taken by the government. • meaning & definition of Inflation and key terms related to it. Along with causes, effects and measures to correct it. • meaning of dispersion and its measures (both absolute and relative) -Range, QD, MD and SD & their coefficients.			
Assessment/ Activity	• Assignments based on Understanding & Application.			
Teaching Aids /Resources	• Smart Class Content Material/ Articles • Economic Survey			

MONTH: DECEMBER

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Statistics for Economics 1) Measures of Dispersion 2) Correlation **Indian Economic Development** 1) Infrastructure	Statistics Measures of Dispersion 1) Variance and Coefficient of Variation. <u>Correlation</u> 1) Introduction and types. 2) Scatter Diagram Method & degree1 3) Karl Pearson's method – Actual Mean Approach	Statistics Correlation 1) Karl Pearson's method – Assumed Mean Approach 2) Practice Questions on Karl Pearson's Method 3) Spearman's Rank Correlation –without and with Repetition. 4) Practice Questions on Spearman's Rank Method	IED (OTBA Discussion) Infrastructure 1) Meaning and Importance. 2) State of infrastructure in India. 3) Energy and its Consumption Pattern in India. Infrastructure 4) Challenges of Power Sector. IED 5) Health – Public and Private Sector. 6) AYUSH and Critical Appraisal of Health Sector in India.	Revision	**Cycle Tests**
Learning Objective	To enable the students to understand the– • meaning and types of Correlation, along with various methods of estimating Correlation. • meaning, importance and state of infrastructure in India. Along with challenges faced by power and health sector				
Expected Learning Outcome	Students would understand the – • meaning and types of Correlation, along with various methods of estimating Correlation. • meaning and state of infrastructure in India. Along with challenges faced by power and health sector.				
Assessment/ Activity	• Assignments based on understanding & application.				
Teaching Aids /Resources	• Smart Class Content Material. • ICT • Reckoner				

MONTH: JANUARY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Indian Economic Development 1) Environment and Sustainable Development	**Winter Break** **Cycle Tests**	**Winter Break** **Cycle Tests** Paper Discussion	IED Environment and sustainable Development 1) Introduction. 2) Functions of Environment 3) Role of Environment in Economic Development of a country. 4) State of Environment in India.	IED Environment and Sustainable Development 1) Global warming and its impacts on the world and on India 2) Responses to climate change.
Learning Objective	To enable the students to understand the – • definition of environment and its function/role in economic development. • meaning of global warming & its impact on World & India			
Expected Learning Outcome	Students would understand the – • definition of environment and its function/role in economic development. • meaning of global warming & its impact on World & India.			
Assessment/ Activity	• Assignments based on understanding.			
Teaching Aids /Resources	• Smart Class Content Material/ Articles/ Various clippings • ICT • Reckonrs			

MONTH: FEBRUARY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Indian Economic Development 1) Economic Growth and Sustainable Development. 2) Development Experience: A Comparative Study of India, Pakistan and China. **Statistics for Economics** 1) Index Number	IED Economic Growth and Sustainable Development. 1) Impact of Economic Growth and Sustainable Development. 2) Causes of Environmental Degradation. 3) Impacts and Implication of climate changes.	Statistics 1) Index Number 2) Meaning of Index Number 3) Types of Index Number-WPI, 4) CPI, IIP etc. 5) Uses of Index Numbers. 6) Limitations of Index Number. 7) Inflation and Index Number	IED Development Experience: A comparative study of India, Pakistan and China. 1) Population: Size and Growth Rate. 2) Composition of GDP. 3) Incidence of Poverty. 4) Human Development Index.	Revision

	IED Development Experience: A Comparative Study of India, Pakistan and China. 1) Introduction 2) India, Pakistan and China: An Overview of Economies.		5) Life Expectancy, Infant Mortality Rate etc.	
Learning Objective	To enable the students to understand the – • causes and impact of environmental degradation. • meaning and types of Index number, along with its uses and limitations. • overview of Economies of India, Pakistan and China in terms of Demography, GDP composition and HDI. • make a comparative study of Economies of India, Pakistan and China in terms of Demography, GDP composition and HDI.			
Expected Learning Outcome	Students would understand the – • causes and impact of environmental degradation. • meaning and types of Index number, along with its uses and limitations. • overview of Economies of India, Pakistan and China in terms of Demography, GDP composition and HDI. • make a comparative study of Economies of India, Pakistan and China in terms of Demography, GDP composition and HDI.			
Assessment/ Activity	• Assignments Based on Understanding , Application & HOTS.			
Teaching Aids /Resources	• Smart Class Content Materials • ICT • Reckoners			

MONTH: MARCH

Content/ Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
	Term –II Exam	**Term –II Exam**	**Term –II Exam**	Paper Discussion	Achiever's Day

Computer Science

MONTH: APRIL

Content / Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter 1 : Computer Overview (to be taught in theory classes) **Chapter 2:** Working With Operating System (Demonstration in Practical classes)			**Chapter 1 :** • Introduction to computer as a data processing device. • Introduction to hardware & software • Strengths and weaknesses of computer • History of evolution of computers • Functional units of computer • The generations of Modern computer • Types of computers – digital , analog and hybrid computers **Chapter 2:** • Introduction of the role of an O.S in the functioning of computer and discussion of the different types of O.S • Introduction to Windows O.S and discussion on the new features of Windows 7 O.S – Sticky notes, widgets and search option • Exploring components of Windows - Start button, taskbar, My computer, Recycle Bin, Network places.	**Chapter 2:** • Functions of O.S – Processor, memory and information management • Types of O.S – Single program, Multiprogram, Time sharing, Real time, Multiprocessing and Interactive GUI • Types of software – System software and Application software	**Chapter 2:** • Managing files and folders in Windows O.S, Creating shortcuts • Concept of path and wild cards • Setting desktop background .
Learning Objectives	To enable students to- • learn about Functional units of computer, history of evolution of computers, generations of Modern computer and understand types of computers • explore and use components and widgets of Windows O.S, manage files and folders • types of O.S. and software • create simple programs using C++ language				
Expected Learning Outcomes	Students would be able to - • understand the function of each unit of computer and know about various inventions which led to the development of today's hi-tech computer • know about types of O.S., their difference, their specific use, use of different components of Windows O.S • know about how information stored in a computer can be organized using folders and subfolders				

	• understand the programming paradigm of C++, use of TC editor to create and manage C++ programs
Assessment / Activity	• Theory assignments from each chapter • Class test after completion of each chapter • Practical assignments on Chapter 1 and Chapter 2
Teaching Aids / Resources	• Coverage of Computer overview, basics of computer, History of computers, Operating system concepts etc. using DigiTALLY modules • Demonstration of Windows O.S. operations and C++ program development steps in the lab session using LCD projector

MONTH : MAY

Content / Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**
Chapter 4 : Microprocessor Basics: Input, Output & Memory Devices (to be taught in theory classes) **Chapter 6:** Getting Started With C++ (Demonstration in Practical classes) **Chapter 7:** Data Handling **Chapter 8:** Operators & Expressions	**Chapter 4 :** • Introduction to microprocessor • Characteristics which differentiate microprocessors – Clock speed, instruction set and word length • Types of Instruction set – CISC , RISC and EPIC • Types of Input and Output devices • Types of printers • Types of Memories in a computer • Comparative study of different types of RAM and ROM • Cache memory • Static and dynamic	**Chapter 4 :** • Study of different types of secondary memory devices • Study of different types of Ports available in a computer and their use **Chapter 6:** • Introduction to C++ as an OOP language • C++ character set • Explanation of components of C++ program through a sample program • Stages of program development • How to type and execute a C++ program using TC editor • Creating simple programs in C++ using I/O operators.	**Chapter 7:** • Introduction to the concept of data types- fundamental and derived data types • Use of variables in a program • initialization of variables • Declaring constants and references. • Formatting output using setw () and setprecision () functions • Creating simple programs in C++ using the topics covered in Chapter 7.	**Chapter 8:** • Introduction to the types of operators used in C++ • Writing expressions using arithmetic, relational and logical operators • Writing assignment statements • Using C++ shorthand operators • Creating simple programs in C++ using the topics covered in Chapter 8.

Learning Objectives	To enable students to- • make students aware of microprocessor's role, its types and characteristics • make students appreciate the variety of I/O and memory devices available • enable students use different data types , operators and programming constructs for storing and processing data through a C++ program
Expected Learning Outcomes	Students would be able to – • know about various types of peripheral devices used with computer • create C++ programs for storing and processing data
Assessment / Activity	• Theory assignments from each chapter • Class test after completion of chapters • Practical assignments on Chapter 6, 7 and 8
Teaching Aids / Resources	• Coverage of I/O and memory devices using DigiTALLY modules • Demonstration of basics of C++ program development steps in the classroom and lab session using LCD projector

MONTH: JULY

Content / Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**	**5th Week**
Chapter 14: Programming Methodology **Chapter 10:** Flow of Control (Contd.)	**Quick revision of topics taught before vacations** **Chapter 10:** • Introduction to the concept of flow of control in a program • Selection statements- if – else and switch • Programming problems using selection statements • Iteration constructs – for, while and do-while loops • Programming problems using iteration constructs • Jump statements – goto, continue, break and exit() • Programming problems using iteration constructs	**Chapter 10:** • Nested loops • Programming problems using nested iteration constructs	**Chapter 14:** • The program development life cycle • Stylistic guidelines for program documentation • Concept of grey code, Robustness, types of errors • Tools and techniques used for the documentation of a software • Programming problems using nested iteration constructs (contd.) • Revision	Revision	**Cycle Tests**

	• Nested loops • Programming problems using nested iteration constructs				
Learning Objectives	To enable students to – • know about program development life cycle, stylistic guidelines and program documentation • create C++ programs using nested loops				
Expected Learning Outcomes	Students would be able to – • create C++ programs using loops and implementing stylistic guidelines for typing program				
Assessment / Activity	• Theory assignments from each chapter • Class test after completion of chapters • Practical assignments on Chapter 10				
Teaching Aids / Resources	• Demonstration of basics of C++ program development steps in the classroom using digitally and in lab session using LCD projector				

MONTH: AUGUST

Content / Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**
Chapter 5: General Oop Concepts **Chapter 11:** Functions	**Mid-Term -1** • Discussion of the Question • Paper of Mid-Term Exam – 1	**Mid-Term 1** **Chapter 5:** • Programming paradigms - procedural and OOP • Basic concepts of OOP • Advantages and limitations of OOP	**Chapter 11:** • Introduction to functions • Syntax of coding a function • Significance of function prototype • Function Definition and function call • return type of a function and use of return statement.	**Chapter 11:** • Types of functions- parametrized and non-parametrised • Syntactical difference between the prototype, function call and definition of above two types of functions • How to develop simple programs using functions • Introduction to 'Call by value' and 'call by reference' method of passing parameters. • Concept of actual and formal parameters • Difference between the above two arguments.
Learning Objectives	To enable students to - • know about procedural and OOP Programming paradigms • use user defined functions in a program and steps to define and execute them using to 'Call by value' and 'call by reference' method of passing parameters. • define default and constant arguments in a function			

Expected Learning Outcomes	Students would be able to : • differciatiate between different programming paradigms • break a complex programming problem into subprograms using functions
Assessment / Activity	• Theory assignments from chapter 5 and 11 • Practical assignments from chapter 11 • Revision test after completion of chapter 5 and 11
Teaching Aids / Resources	• Demonstration of OOP concept using digitally / SmartBoard • Demonstration of program development using functions in the classroom using digitally and in lab session using LCD projector

MONTH: SEPTEMBER

Content / Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**	**5th Week**
Chapter 11: Functions	• Development of simple programs using call by value method. • Defining default and constant arguments in a function • Development of simple programs using default and constant arguments. • Syntax for using Call by reference method • Use of pointer (*) and &(address of) operator in passing parameters • Development of programs using the call by reference method. • Functions to manipulate strings using pointer to a string • Scope rules of variables used in a function. • Use of Global variables using scope resolution operator(::). • Development of programs using global variables.	Revision	**Term I Exam**	**Term -I Exam**	Discussion of Question Paper
Learning Objectives	To enable students to – • pass strings as parameters applying ‘Call by reference ‘ method. • master the call by reference method by practice programs • use global variables in functions.				

Expected Learning Outcomes	Students would be able to – • pass inputs to functions using parameters using call by reference technique • revise all the concepts learnt in Term 1
Assessment / Activity	• Theory and Practical assignments, Revision test after completion of chapter
Teaching Aids / Resources	• Illustrations on the Smart board, Lecture presentation of concepts using LCD projector, Demonstration of algorithms in lab session

MONTH : OCTOBER

Content / Topic	1st Week (1-2)	2nd Week	3rd Week	4th Week
Chapter 12: Structured Data Type: Arrays	• Introduction to array as a data structure • Need of arrays • Structure of an array in memory • Concept of lower and upper bound of an array	• Types of arrays – 1D, 2D and 3D • Declaration of an array • Inputting data values in an array	• Accessing array elements using loop • To code simple programs using 1D array	• To perform basic processing operations in a 1D array like searching , • To code simple programs of basic operations in a 1D array
Learning Objectives	To enable students to: • use arrays as a data structure to record multiple data values of same data type for processing • create and use 1D and 2D arrays • form basic array operations • pass array data elements to functions			
Expected Learning Outcomes	Students would be able to – • understand that array is a data structure • use array to process multiple data values simultaneously . • learn to perform basic processing operations in a 1D array like searching , insertion and deletion			
Assessment / Activity	• Theory and Practical assignments, Revision test after completion of the chapter			
Teaching Aids	• Lecture presentation of concepts using LCD projector, Demonstration of algorithms in lab session			

MONTH : NOVEMBER

Content / Topic	1st Week	2nd Week	3rd Week	4th Week
Chapter 3: Data Representation **Chapter 12:** Arrays	**Chapter 3:** • Insertion and deletion in a 1D array • Working with uninitialized arrays	**Chapter 3:** • Passing array of characters i.e. strings to functions using 'Call by Reference' method. • Programming problems based on string manipulation through 'Call by Reference' method	**Chapter 3:** • Introduction to digital number systems – Decimal, Binary, Octal and hexadecimal number system • Number system conversion • 1's and 2's complement representation • Binary addition & subtraction • Representing characters in memory using ASCII, UNICODE and ISCII coding schemes	• **Chapter 12 :** • String manipulation using arrays • . Working with 2D arrays • Structured Data Type: Arrays - Matrices as 2D arrays. - Matrix operations using 2D arrays - To code matrix manipulation programs using 2D array
Learning Objectives	To enable students to - • know about digital number systems and Binary addition & subtraction • know about ASCII, UNICODE AND ISCII coding schemes • pass array as input to functions. • pass array of characters as input to functions. • solve programming problems involving matrix algebra • learn to encapsulate data using structure • learn to process data using structure			
Expected Learning Outcomes	Students would be able to – • convert numbers in different number systems and do binary addition and subtraction • use array and structures for storing and processing programme data			
Assessment	• Oral questions in the class, Programming assignments and Revision tests on completion of chapter			
Teaching Aids	• Demonstration of number system conversions using SmartBoard • Display of Sample programs using LCD projector			

MONTH : DECEMBER

Content / Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Chapter 13 Structures	**Chapter 13:** • Introduction to Structure as a derived data type & data structure • Need of structures • Structure declaration • Programs for storing & accessing information using structure.	**Chapter 13:** • Declaring array of structures. • Processing information of many entities at a time using array of structures • Passing structure to functions	**Chapter 13:** • Structure as return data type of a function • Application of the above two concepts in programming problems. • Practice of the programs using structure as object and return data type.	Revision	**Cycle Tests**
Learning Objectives	To enable students to - • encapsulate data using structure • process data using structure				
Expected Learning Outcomes	Students would be able to – • use array and structures for storing and processing programm data				
Assessment	• Oral questions, Practical assignments , Revision assignments and tests				
Teaching Aids	• Black board , display of Sample questions using LCD projector				

MONTH : JANUARY

Content / Topic	1st Week	2nd Week	3rd Week	4th Week
Project Development & Documentation	**Cycle Tests**	**Cycle Tests**	**Project Development & Documentation** • Chapter-wise revision in the form of : - Revision of the main concepts in the class - Revision assignment - Chapter-wise Revision Test	**Project Development & Documentation** • Chapter-wise revision in the form of : - Revision of the main concepts in the class - Revision assignment - Chapter-wise Revision Test
Learning Objectives	To enable students to – • make students process structure data through functions			

	• help students revise the topics learnt through revision assignments and programming exercises
Expected Learning Outcomes	Students would be able to - • process structure data through functions • revise the topics learnt through revision assignments and programming exercises
Assessment	• Oral questions, Practical assignments , Revision assignments and tests
Teaching Aids	• Black board , display of Sample questions using LCD projector

MONTH : FEBRUARY

Content / Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**
Chapter-Wise Revision of The Syllabus	• Chapter-wise revision in the form of : - Revision of the main concepts in the class - Revision assignment - Chapter-wise Revision Test - Project development & documentation	• Revision	• Revision	• **Revision**
Learning Objectives	To enable students to – • revise the topics learnt through revision assignments and programming exercises			
Expected Learning Outcomes	Students woule be able to – • revise the syllabus in a systematic manner and able to identify their doubts.			
Assessment	• Oral question answer sessions, Revision assignments and tests			
Teaching Aids	• Black board , display of Sample questions using LCD projector			

MONTH: MARCH

Content/ Topic	**1st Week**	**2nd Week**	**3rd Week**	**4th Week**	**5th Week**
	Term - II Exam	**Term - II Exam**	**Term - II Exam**	Paper Discussion	Achiever's Day

Physical Education

MONTH: APRIL

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Unit I Physical Fitness, Wellness & Lifestyle **Unit II** Changing Trends & Career In Physical Education			**Unit I** • Meaning & Importance of Physical Fitness, Wellness & Lifestyle • Factors Affecting Physical Fitness & Wellness • Indicators Of Health – Physical & Psychological	**Unit I** • Preventing Health Threats Through Lifestyle • Change Components of Positive Lifestyle	**Unit II** • Define Physical Education, Its Aims & Objectives • Development of Physical. Education- Post Independence
Learning Objectives	To know about the importance of fitness and wellness in life				
Expected Learning Outcome	Aware about the fitness components, factors affected physical fitness and wellness, components of healthy lifestyle				
Teaching Aids	Discussion method, dictation method, reading method ,practical				
Assessment	Reflective questions, Quiz, Exam, practical				

MONTH: MAY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
	Unit II • Changing Trends & Career In Physical Education • Concept & Principles of Integrated Physical. Education.	**Unit II** • Changing Trends & Career In Physical Education • Concept & Principles of Adaptive Physical.	**Unit II** Education Career Options in Physical Education	**Summer Break**
Learning Objectives	To make them aware about career opportunities in physical education			
Expected Learning Outcome	To clear their myth about their career opportunities in physical education			
Teaching Aids	Discussion method, information method, By clarifying their doubts			
Assessment	Reflective questions, Quiz, Exam ,visiting various institutions			

MONTH: JULY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Unit III : Olympic Movement	**Unit III** • Ancient & Modern Olympics	**Unit III** • Olympic Symbols, Ideals, Objectives & Values • International Olympic Committee	**Unit III** • Indian Olympic Association • Dronacharya Award, Arjuna Award & Rajiv Gandhi Khel Ratna Award	**Unit III** • Organizational set-up of CBSE Sports & Cha-cha Nehru Sports Award	**Cycle Tests**
Learning Objectives	• To make them aware about Olympic movements and CBSE Organizational set-up				
Expected Learning Outcome	• Students will be aware of all the information related to Olympics and CBSE.				
Teaching Aids	• Discussion Method, Dictation Method, Questionnaires				
Assessment	• Reflective questions, Quiz, Exam, practical				

MONTH: AUGUST

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Unit IV: Yoga **Unit V:** Doping	**Unit IV** • Meaning & Importance of Yoga • Yoga as an Indian Heritage • Elements of Yoga	**Unit IV** • Introduction to -Asanas, Pranayama, Mediation & Yogic Kriyas • Prevention & Management of Common Lifestyle Diseases, Obesity, Diabetes, Hyper-Tension & Back-Pain	**Unit V** • Meaning & Types of Doping • Prohibited Substances & Methods	**Unit V** • Athletes Responsibilities • Testing – In Competition & Out-of Competition • Side Effects of Prohibited Substances
Learning Objectives	• To know the significance of Yoga in life and side effects of Doping in sports.			
Expected Learning Outcome	• Students will be able to understand and incorporate Yoga in their daily life. • Students will not intake any banned supplements during their sports career.			
Teaching Aids	• Discussion Method, Dictation Method, Reading Method, Internet			
Assessment	• Reflective questions, Quiz, Exam.			

MONTH: SEPTEMBER

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Unit VI : Management of Injuries	**Unit VI** • Common Sports Injuries of Soft Tissues, Joints & Bones • First-Aid In Common Sports Injuries	**Unit VI** • Management of Injuries • Prevention of Sports Injuries • Rehabilitation Through Massage & Exercise	**Term I Exam.**	**Term I Exam.**	Paper Discussion
Learning Objectives	• To make the students aware about sports injuries.				
Expected Learning Outcome	• Students will be aware on how to manage injuries during sports.				
Teaching Aids	• Discussion method, dictation method, reading method, practical method				
Assessment	• Reflective Questions, Quiz, Exam , Practical				

MONTH: OCTOBER

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Unit VII: Test & Measurement In Sports	**Unit VII** • Define Test & Measurement • Importance of Test & Measurement in Sports	**Unit VII** • Calculation of BMI & Waist - Hip Ratio	**Unit VII** • Somato Types (Endomorphy, Mesomorphy & Ectomorphy)	**Unit VII** • Procedures of Anthropometric Measurement – Height, Weight, Arm & Leg Arm & Leg Length And Skin Fold
Learning Objectives	• To know about the significance and validity of tests and measurement in sports.			
Expected Learning Outcome	• Students will be updated on the Procedures Of Anthropometric Measurement. • They will also be informed about the various tests and measurement.			
Teaching Aids	• Discussion Method, Dictation Method, Reading Method, Practical Method			
Assessment	• Reflective questions, Quiz, Exam ,practical methods, practical			

MONTH: NOVEMBER

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Unit VIII: Fundamentals of Anatomy & Physiology	**Unit VIII** • Define Anatomy, Physiology Its Importance • Function of Skeleton System, Classification of Bones & Types of Joints	**Unit VIII** • Function & Structure of Muscles	**Unit VIII** • Function & Structure of Respiratory System • Structure of Heart	**Unit VIII** • Structure of Heart • Introduction to Circulatory System
Learning Objectives	• To make the students understand the fundamentals of anatomy and physiology.			
Expected Learning Outcome	• The students will become aware of the functions of various organs and structure of different systems of body.			
Teaching Aids	• Discussion Method, Dictation Method, Reading Method			
Assessment	• Reflective questions, Quiz, Exam, practical demonstration			

MONTH: DECEMBER

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
Unit IX : Biomechanics & Sports	**Unit IX** • Meaning & Importance of Biomechanics -in physical Education & Sports	**Unit IX** • Newton's Law of Motion and its application in sports	**Unit IX** • Levers & Its Types and its application in sports	**Unit IX** • Equilibrium – Dynamic & Static And Centre Of Gravity and its application in sports	**Unit IX** • Force – Centrifugal & Centripetal and its application in sports
Learning Objectives	• To make the students discern the meaning and importance of Biomechanics in sports.				
Expected Learning Outcome	• The students will be familiar with the significance of Biomechanics and Laws of Motion, force and others.				
Teaching Aids	• Discussion method, dictation method, reading method ,practical methods				
Assessment	• Reflective questions, Quiz, Exam, practical				

MONTH: JANUARY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Unit X : Psychology & Sports	**Winter Break** **Cycle Tests**	**Winter Break** **Cycle Tests**	**Unit X** • Definition & Importance of Psychology in physical Education & Sports • Define & Differentiate Between Growth & Development	**Unit X** • Developmental Characteristics At Different Stage of Development Adolescent Problems & Their Management • Define Learning, Laws of Learning & Transfer of Learning
Learning Objectives	• To make the students identify the developmental characteristics at different stage of development, adolescent problems &their management.			
Expected Learning Outcome	• The students will be able to comprehend the psychology in physical education and they will also get an insight of the concepts and principles of sports training.			
Teaching Aids	• Discussion Method, Dictation Method, Reading Method			
Assessment	• Reflective questions, Quiz, Exam			

MONTH: FEBRUARY

Content/Topic	1st Week	2nd Week	3rd Week	4th Week
Unit XI : Training In Sports	**Unit XI** • Meaning & Concept of Sports Training • Principles of Sports Training	**Unit XI** • Warming up & limbering down Load	**Unit XI** • Adaptation & Recovery Skill, Technique & Style	Practical's

MONTH: MARCH

Content/Topic	1st Week	2nd Week	3rd Week	4th Week	5th Week
	Term II Exams.	**Term II Exams.**	**Term II Exams.**	Paper Discussion	Acheiver's Day

Evaluation System

Class XI

Examination Schedule for Class XI:

XI: Term Exam	**Term I**		**Term II**	
	Cycle Tests	**Term-end Exam**	**Cycle Tests**	**Term-End Exam**
Month	According to given schedule	3rd & 4th week of Sept.	With Pre-Board II of Class XII (end Dec to beginning Jan)	Feb.- March
Max. Marks	Theory exam; 50% weightage of theory exam.	100 (TH+PR*) (*as per CBSE marking Scheme)	Theory exam ; Max marks will be as per CBSE guidelines set for Theory Section of the respective subject	100 (TH+PR*) (*as per CBSE marking scheme)
Time Duration	1hr. 45 minutes (inclusive of reading time)	3 hrs (as per CBSE guidelines for respective subject)	3 hrs (as per CBSE guidelines for respective subject)	3 hrs (3 ½ for OTBA) (as per CBSE guidelines)
Syllabus	April - July	April - Sept	April – Dec.	April – Feb.
Marks dist.	*Marks distribution in each Term for Written / Practical/ Continuous Evaluation as per CBSE guidelines English - For Class XI: 80 Written +20 /ASL Maths, -100 written Physics/Chemistry/Biology/ /Phy. Edu./Computer Sc /.- 70 written+30 Practical			

Classes	**Work Education [Once a session]**		
XI	**Work Experience**	**General Studies**	**Health & Physical Education**
Internal assessment based on performance of the students. Grades to be given on nine points scale.			

Promotion to Class XII:

- Student should score at least 40% in Theory and Practical (where ever applicable) in cumulative score to be promoted to class XII.
- Compartment will not be given in two subjects.

- No grace marks are considered for promotion
- Compartment is granted provided the cumulative marks in that subject are between 25% and 33%.
- Compartment exam is conducted from the entire syllabus.

General Guidelines

I) Absence from Examination

(a) As per circular by CBSE (Circular no. CBSE/Vide No. COORD/2009, dated 08.10.2009)75% attendance required for all classes.

(b) In case a student joins late due to late admission or on genuine medical grounds, his/her percentage will be calculated from the date of admission.

(c) Appearing for Assignments / Summative Assessment / Term Exam is mandatory.

(d) In case a student is absent on medical grounds, leave application to be submitted prior to the Exam with proper sanction from the Head.

(e) Students representing schools in any Inter-school, Inter-Zone, Inter-State Competitions would be tested after the competition is over. Suitable time for preparation would be given to them.

II) Unfair Means

a. Invigilation duties during Assignments / Examinations, to be done vigilantly. In case a student uses unfair means, the Answer Sheet to be cancelled immediately & a new sheet to be issued. Such cases to be brought immediately to the notice of the Exam Department for appropriate action also a warning letter to be issued further to the parents.