

CLASS -12
SUBJECT- PHYSICS

MONTH	DAYS	NAME OF UNIT	ACTIVITY
APRIL	24	I : Electrostatics Chapter–1: Electric Charges and Fields Electric charges, Conservation of charge, Coulomb's law-force between two- point charges, forces between multiple charges; superposition principle and continuous charge distribution. Electric field, electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field. Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside).	DEMONSTRATION OF REPULSION AND ATTRACTION BETWEEN VARIOUS OBJECTS.
		Chapter–2: Electrostatic Potential and Capacitance Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two-point charges and of electric dipole in an electrostatic field. Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarization, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor (no derivation, formulae only).	DEMONSTRATION OF CHARGING AND DISCHARGING OF CAPACITORS
		II. Current Electricity Chapter–3: Current Electricity Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity,	EXPERIMENT- 1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current. ACTIVITY 1.To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.
MAY	7	Chapter–3: Current Electricity Temperature dependence of resistance, Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel, Kirchhoff's rules, Wheatstone bridge	EXPERIMENT 2. To find resistance of a given wire / standard resistor using metre bridge. 3. To verify the laws of combination (series) of resistances using a metre bridge. To verify the laws of combination (parallel) of resistances using a metre bridge ACTIVITY 2.To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.

JUNE	12	III. Magnetic Effects of Current and Magnetism Chapter–4: Moving Charges and Magnetism Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight solenoid (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields. Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors-definition of ampere, torque experienced by a current loop in uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment, moving coil galvanometer- its current sensitivity and conversion to ammeter and voltmeter.	EXPERIMENT 4.To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.
JULY	26	Chapter–5: Magnetism and Matter Bar magnet, bar magnet as an equivalent solenoid (qualitative treatment only), magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis (qualitative treatment only), torque on a magnetic dipole (bar magnet) in a uniform magnetic field (qualitative treatment only), magnetic field lines. Magnetic properties of materials- Para-, dia- and ferro – magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties.	
		IV. Electromagnetic Induction and Alternating Currents Chapter–6: Electromagnetic Induction Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction	
		Chapter–7: Alternating Current Alternating currents, peak and RMS value of alternating current/voltage; reactance and impedance; LCR series circuit (phasors only), resonance, power in AC circuits, power factor, wattless current. AC generator, Transformer	
AUG	24	V. Electromagnetic waves Chapter–8: Electromagnetic Waves Basic idea of displacement current, Electromagnetic waves, their characteristics, their transverse nature (qualitative idea only). Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses.	
		VI. Optics Chapter–9: Ray Optics and Optical Instruments Ray Optics: Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and optical fibers, refraction at spherical surfaces, lenses, thin lens formula, lens maker's formula, magnification, power of a lens, combination of thin lenses in contact, refraction of light through a prism. Optical instruments: Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers Chapter–10: Wave Optics Wave front and Huygen's principle. Reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using	ACTIVITY 3.To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab. 4.To study the nature and size of the image formed by a (i) convex lens, or (ii) concave mirror, on a screen by using a candle and a screen (for different distances of the candle from the lens/mirror). EXPERIMENTS 5.To find the value of v for different values of u in case of a concave mirror and to find the focal length.

		Huygen's principle.	6.To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$. 7.To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation.
SEPT	10	Chapter–10: Wave Optics Interference, Young's double slit experiment and expression for fringe width (No derivation final expression only), coherent sources and sustained interference of light, diffraction due to a single slit, width of central maxima (qualitative treatment only)	ACTIVITY 5.To observe diffraction of light due to a thin slit
		VII. Dual Nature of Radiation and Matter Chapter–11: Dual Nature of Radiation and Matter Dual nature of radiation, Photoelectric effect, Hertz and Lenard's observations; Einstein's photoelectric equation-particle nature of light. Experimental study of photoelectric effect Matter waves-wave nature of particles, de-Broglie relation	
OCT	21	VIII. Atoms and Nuclei Chapter–12: Atoms Alpha-particle scattering experiment; Rutherford's model of atom; Bohr model of hydrogen atom, Expression for radius of n th possible orbit, velocity and energy of electron in n th orbit, hydrogen line spectra (qualitative treatment only). Chapter–13: Nuclei Composition and size of nucleus, nuclear force Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number; nuclear fission, nuclear fusion.	
		IX. Electronic Devices Chapter–14: Semiconductor Electronics: Materials, Devices and Simple Circuits Energy bands in conductors, semiconductors and insulators (qualitative ideas only) Intrinsic and extrinsic semiconductors- p and n type, p-n junction Semiconductor diode - I-V characteristics in forward and reverse bias, application of junction diode - diode as a rectifier.	ACTIVITY 6.To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items. EXPERIMENT 8.To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias.
NOV	16	REVISION	

PORTION FOR RESPECTIVE EXAMINATIONS

NAME OF EXAM/TEST	PORTION
PT-1	Chapter–1: Electric Charges and Fields, Chapter–2: Electrostatic Potential and Capacitance, Chapter–3: Current Electricity
PT-2	Chapter–4: Moving Charges and Magnetism, Chapter–5: Magnetism and Matter
OBJECTIVE TEST-1	Portions of PT-1 and PT-2, Chapter–6: Electromagnetic Induction, Chapter–7: Alternating Current
PRE-BOARD 1	COMPLETE SYLLABUS
PRE-BOARD 2	COMPLETE SYLLABUS

Physics Exam Marking Scheme

Sections	Number of questions	Marks Allotted
Section-A	16 (12 MCQs and 4 Assertion Reasoning)	16 x 1 = 16
Section-B	5 Questions	5 x 2 = 10
Section-C	7 Questions	7 x 3 = 21
Section-D	2 Case Study Based Questions	2 x 4 = 8
Section-E	3 Long Answer Questions	3 x 5 = 15

BLUE-PRINT FOR HALF YEARLY EXAMINATION

CHAPTER NAME	1 MARK	2 MARKS	3 MARKS	4 MARKS	5 MARKS
Electric Charges and Fields	1	1	1	1	-
Electrostatic Potential AND CAPACITANCE	2	-	-	-	1
CURRENT ELECTRICITY	3	2	2	-	-
Magnetic Effects of Current and Magnetism	5	1	1	-	1
Magnetism and Matter	-	1	1	-	-
Electromagnetic Induction	3	-	1	1	-
Alternating Current	2	-	1	-	-
TOTAL	16	5	7	2	2

BLUE-PRINT FOR PRE-BOARD EXAMINATION

Unit	Chapter	VSA (1 Mark)		SA (2 Marks)	LA-I (3 Marks)	LA-II (5 Marks)	Total
		MCQ	Objecti ve type				
Unit- I	Electrostatics						
	Ch-1: Electric Charges and Fields	1x1=1	-	2x1=2	-	5x1=5 With Internal Choice	16
	Ch-2: Electrostatic Potential and capacitance	1x1=1					
Unit-II	Current Electricity						
	Ch-3: Current Electricity	1x1=1	1x1=1	2x1=2	3x1=3	-	
Unit-III	Magnetic Effects of Current and Magnetism						
	Ch-4: Moving Charges and Magnetism	-	1x1=1	-	3x1=3 With Internal choice from Ch-4 and Ch-6	5x1=5 With Internal Choice	17
	Ch-5: Magnetism and Matter	1x1=1	-	2x1=2			
	Electromagnetic Induction and Alternating Currents						

Unit-IV	Ch-6: Electromagnetic Induction	-	1x1=1	-	-	-	
	Ch-7: Alternating Currents	1x1=1	-	-	3x1=3	-	
Unit-V	Electromagnetic Waves						18
	Electromagnetic Waves	-	-	-	3x1=3	-	
Unit-VI	Optics						
	Ch-9: Ray Optics and Optical Instruments	1x1=1	1x2=2	2x1=2 With Internal Choice	-	5x1=5 With Internal Choice	
	Ch-10: Wave Optics	1x1=1	1x1=1		3x1=3		
Unit VII	Dual nature of Radiation and Matter						12
	Ch-11: Dual nature of Radiation and Matter	1x1=1	1x1=1	2x1=2 With internal choice	-	-	
Unit-VIII	Atoms and Nuclei						
	Ch-12: Atoms	1x1=1	1x1=1		3x1=3	-	
	Ch-13: Nuclei	-	1x1=1	2x1=2		-	

CLASS -12
SUBJECT- PHYSICS

UNIT NO.	MONTH	NAME OF UNIT	HALF YEARLY	PRE BOARD
Unit-I	APRIL	Electrostatics		16
		Chapter-1: Electric Charges and Fields	10	
		Chapter-2: Electrostatic Potential and Capacitance	10	
UNIT II	MAY	Current Electricity		
		Chapter-3: Current Electricity	10	
UNIT -III	JUNE	Magnetic Effects of Current and Magnetism		17
		Chapter-4: Moving Charges and Magnetism	15	
		Chapter-5: Magnetism and Matter	5	
UNIT - IV	JULY	Electromagnetic Induction and Alternating Currents		
		Chapter-6: Electromagnetic Induction	10	
		Chapter-7: Alternating Current	10	
UNIT -V	JULY	Electromagnetic Waves		18
		Chapter-8: Electromagnetic Waves		
UNIT - VI	AUG	Optics		
		Chapter-9: Ray Optics and Optical Instruments		
		Chapter-10: Wave Optics		
UNIT -	SEPT	Dual Nature of Radiation and Matter		12

VII				
		Chapter–11: Dual Nature of Radiation and Matter		
UNIT – VIII	SEPT	Atoms and Nuclei		
		Chapter–12: Atoms		
		Chapter–13: Nuclei		
UNIT – IX	OCT	Electronic Devices		7
		Chapter–14: Semiconductor Electronics: Materials, Devices and Simple Circuits		
TOTAL			70	70

Physics Exam Marking Scheme

Sections	Number of questions	Marks Allotted
Section-A	16 (12 MCQs and 4 Assertion Reasoning)	16 x 1 = 16
Section-B	5 Questions	5 x 2 = 10
Section-C	7 Questions	7 x 3 = 21
Section-D	2 Case Study Based Questions	2 x 4 = 8
Section-E	3 Long Answer Questions	3 x 5 = 15

BLUE-PRINT FOR HALF YEARLY EXAMINATION

CHAPTER NAME	1 MARK	2 MARKS	3 MARKS	4 MARKS	5 MARKS
Electric Charges and Fields	1	1	1	1	-
Electrostatic Potential AND CAPACITANCE	2	-	-	-	1
CURRENT ELECTRICITY	3	2	2	-	-
Magnetic Effects of Current and Magnetism	5	1	1	-	1
Magnetism and Matter	-	1	1	-	-
Electromagnetic Induction	3	-	1	1	-
Alternating Current	2	-	1	-	-
TOTAL	16	5	7	2	2

SUBJECT: CHEMISTRY

CLASS - XII

TERM- I: April 2026 to September 2026

Month	No of Working days/Periods	Unit	Activities
APRIL	24	SOLUTION: Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law, colligative properties-relative lowering of vapour pressure, elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties, abnormal molecular mass, Van't Hoff factor.	

MAY	7	ELECTROCHEMISTRY : Redox reactions, EMF of a cell, standard electrode potential, Nernst equation and its application to chemical cells, Relation between Gibbs energy change and EMF of a cell, conductance in electrolytic solutions, specific and molar conductivity, Kohlrausch's Law, electrolysis and law of electrolysis (elementary idea,) dry cell - electrolytic cells and Galvanic cells, lead accumulator, fuel cells, corrosion.	
JUNE	12	CHEMICAL KINETICS : Chemical Kinetics Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst; order and molecularity of a reaction, rate law and specific rate constant, integrated rate equations and half-life (only for zero and first order reactions), concept of collision theory (elementary idea, no mathematical treatment), activation energy, Arrhenius	
JULY	26	d and f Block Elements : Position in the Periodic Table, Electronic configuration of the d-Block Elements, General properties of the Transition Elements (d-Block), Some Important Compounds of Transition Elements, The Lanthanoids, The Actinoids, Some Applications of d- and f- Block Elements. Coordination compounds : - Introduction, ligands, coordination number, colour, magnetic properties and shapes, IUPAC nomenclature of mononuclear coordination compounds. Bonding, Werner's theory, VBT, and CFT; structure and stereoisomerism, importance of coordination compounds (in qualitative analysis, extraction of metals and biological system).	
AUGUST	24	Haloalkanes and Haloarenes : - Nomenclature, nature of C–X bond, physical and chemical properties, optical rotation mechanism of substitution reactions. Haloarenes: Nature of C–X bond, substitution reactions (Directive influence of halogen in monosubstituted compounds only). Uses and environmental effects of - dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.	
SEPTEMBER	10	Alcohols, Phenols and Ethers : Nomenclature, methods of preparation, physical and chemical properties (of primary alcohols only), identification of primary, secondary and tertiary alcohols, mechanism of dehydration, uses with special reference to methanol and ethanol. Phenols: Nomenclature, methods of preparation, physical and chemical properties, acidic nature of phenol, electrophilic substitution reactions, uses of phenols. Ethers: Nomenclature, methods of preparation, physical and chemical properties, uses.	

TERM-II: October 2026 to February 2027

Month	No of Working days	Unit	Activities
OCTOBER	21	Aldehydes, Ketones and Carboxylic Acids : Nomenclature and Structure of Carbonyl Group, Preparation of Aldehydes and Ketones, Physical Properties and Chemical Reactions, Uses of Aldehydes and Ketones Nomenclature Structure of Carboxyl Group, Methods of Preparation of Carboxylic Acids, Physical Properties and Chemical Reactions, Uses of Carboxylic Acids.	
NOVEMBER	16	AMINES : Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary, secondary and tertiary amines. Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry. BIOMOLECULES : Carbohydrates , Classification (aldoses and ketoses), monosaccharides (glucose and fructose), D-L configuration oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen); Importance of carbohydrates, Proteins Elementary idea of – amino acids, peptide bond, polypeptides, proteins, structure of proteins – primary, secondary, tertiary structure and quaternary structures (qualitative idea only), denaturation of proteins , enzymes, Hormones-Elementary idea excluding structure. Vitamins Classification and functions. Nucleic Acids: DNA and RNA.	
DECEMBER	21	Revision & Pre Board -1	
JANUARY	23	Pre-Board 2 & CBSE Practicals	

Portion of Different Tests / Examinations of the Session 2026-27

Name of Exam/ Test	Portion
Periodic Test I	Solutions
Periodic Test II	Electrochemistry & Chemical Kinetics
Objective Test I	Solutions, Electrochemistry, Chemical Kinetics , d and f Block Elements, Coordination Compounds
Half Yearly	Solutions, Electrochemistry , Chemical Kinetics, Haloalkanes and Haloarenes
Periodic Test III	Alcohols, Phenols and Ethers
Pre Board -1	Full Syllabus
Pre Board - II	Full Syllabus

Marking Scheme and Blueprint
HALF YEARLY EXAMINATION- 2026 – 27

Time- 3 Hours

F. Marks- 70

SL NO	CHAPTER	1 MARK MCQ	1 MARK R/A	2 MARKS	3 MARKS	4 MARKS	5 MARKS	TOTAL
1	SOLUTIONS	02	01	-	01	-	01	11
2	ELECTROCHEMISTRY	03	01	01	01	-	01	14
3	CHEMICAL KINETICS	02	01	02	-	01	-	11
4	d AND f- BLOCK ELEMENTS	01	-	02	02	-	-	11
5	COORDINATION COMPOUNDS	03	01	-	01	01	-	11
6	HALOALKANES AND HALOARENES	01	-	-	02	-	01	12
TOTAL QUESTIONS		12	04	05	07	02	03	33
TOTAL MARKS		12	04	10	21	08	15	70

Blue Print of Question Paper
Pre-Board (2026-27)

Type	Marks for each question	Number of questions	Total marks
Objective	1	16(12 MCQ, 4A/R)	16
Short answer	2	5	10
Short answer	3	7	21
Case based	4	2	08
Long answer	5	3	15
Total		33	70

SUBJECT: BIOLOGY

CLASS - XII

TERM-I: April 2026 to September 2026

Month	No of Working days	Unit	Activities
APRIL	24	UNIT -VI REPRODUCTION Ch. 1. Sexual reproduction in flowering plants Flower structure, male and female gametophyte, Pollination – types, agencies and examples, Outbreeding devices, pollen-pistil interaction, double fertilization, post fertilization development – endosperm and embryo, development of seed and formation of fruit, special modes – apomixes, parthenocarpy, polyembryony, significance of seed and fruit formation.	1. Prepare a temporary mount to observe pollen germination. 2. Study the plant population density by quadrat method.

		Ch. 2. Human reproduction Male and female reproductive system, Microscopic anatomy of testis and ovary, gametogenesis-spermatogenesis and oogenesis, menstrual cycle, fertilization, embryo development upto blastocyst formation, implantation, pregnancy and placenta formation (Elementary idea), parturition (Elementary idea), lactation (Elementary idea).	
MAY	7	Unit - VI & VII Ch. 3. Reproductive health Need for reproductive health, prevention of sexually transmitted diseases, birth control – need and methods, contraception and MTP, Amniocentesis, Infertility and assisted reproductive technologies – IVF, ZIFT, GIFT (Elementary idea for general awareness). GENETICS & EVOLUTION Ch. 4. Principles of inheritance and variation Mendelian inheritance, deviations from mendelism – Incomplete dominance, Co-dominance, Multiple allelism and inheritance of blood group, Pleiotropy, Elementary idea of Polygenic inheritance, Chromosomal theory of inheritance, Chromosomes and genes, Sex determination – In humans, birds, honey bee, linkage and crossing over, sex linked inheritance- Haemophilia, colour blindness, Mendelian disorders in humans – thalassemia; chromosomal disorders in humans - Down's syndrome, Klinefelter' syndrome, Turner's syndrome.	3. Study the plant population frequency by quadrat method. 4. Prepare a temporary mount of onion root tip to study mitosis.
JUNE	12	Unit -VII Ch. 5. Molecular Basis of inheritance Search for genetic material and DNA as genetic material, structure of DNA and RNA, DNA packaging, DNA replication, central dogma: Transcription, genetic code, translation, gene expression and regulation – Lac Operon, Human genome project, Rice genome project, DNA fingerprinting.	5. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, banana etc.
JULY	26	Ch-7 - Evolution : Origin of life; biological evolution and evidences for biological evolution (paleontology, comparative anatomy, embryology and molecular evidences); Darwin's contribution, modern synthetic theory of evolution; mechanism of evolution, variation (mutation and recombination) and natural selection with examples, types of natural selection; Gene flow and genetic drift; Hardy - Weinberg's principle; adaptive radiation; human evolution. BIOTECHNOLOGY & ITS APPLICATIONS Ch. 9. Biotechnology - Principles & processes Genetic engineering (Recombinant DNA technology). Ch. 10. Biotechnology and its Application Application of biotechnology in health and agriculture, Human insulin and vaccine production, Gene therapy, GMO – Bt crops, Transgenic animals,	Study and observe the following (Spotting): 1. Flowers adapted to pollination by different agencies (wind, insects, birds). 2. Pollen germination on stigma through a permanent slide or scanning electron micrograph. 3. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through

		Biosafety issues, Biopiracy, Patents.	permanent slides (from grasshopper/mice).
AUGUST	24	Unit - 8 BIOLOGY IN HUMAN WELFARE Ch. 7. Human Health & Diseases Pathogens, parasites, causing human diseases (Malaria, dengue, chikungunya, Filaria, Ascariasis, Typhoid, Pneumonia, Common cold, Amoebiasis, Ringworm) and their control, basic concepts of immunology - vaccine, Cancer, HIV, AIDS; Adolescence - drug and alcohol abuse. Ch.8- Microbes in Human Welfare Microbes in Household Products, Microbes in sewage Treatment, Microbes in production of biogas, Microbes as Biocontrol Agents, Microbes as Biofertilisers	4. Meiosis in onion bud cell or grasshopper testis through permanent slides. 5. T.S. of blastula through permanent slides (Mammalian). 6. Mendelian inheritance using seeds of different colour/sizes of any plant.
SEPTEMBER	10	Revision MID TERM EXAMINATION	

TERM- II :October 2026 to February 2027

Month	No of Working days	Unit	Activities
OCTOBER	21	Unit - 10 ECOLOGY AND ENVIRONMENT Ch.11. Organisms and Populations Population interactions- mutualism, competition, predation, parasitism; Population attributes – growth, birth and death rate, age distribution. Ch.12. Ecosystem Ecosystem: Patterns, components; productivity and decomposition; energy flow; pyramids of number, biomass, energy.	7. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness. 8. Controlled pollination - emasculation, tagging and bagging. 9. Common disease causing organisms like Ascaris, Entamoeba, Plasmodium, any fungus causing ringworm through permanent slides, models or virtual images or specimens. Comment on symptoms of diseases that they cause.
NOVEMBER	16	Ch.13. Biodiversity and its Conservation Biodiversity - Concept, patterns, importance; loss of biodiversity; biodiversity conservation; hotspots, endangered organisms, extinction, Red Data Book,	10. Models specimens showing symbiotic association in lichens, root nodules of

		Sacred Groves, biosphere reserves, national parks, wildlife, sanctuaries and Ramsar sites.	leguminous plants, and parasitic mode of nutrition shown by Cuscuta on host. 11. Flash cards / models showing examples of homologous and analogous organs.
DECEMBER	21	REVISION PRE BOARD I	
JANUARY	23	PRE BOARD II	
FEBRUARY	7		

Portion of Different Tests / Examinations of the Session 2026-27

Name of Exam/ Test	Portion
Periodic Test I	Sexual reproduction in Flowering plants, Human reproduction, Reproductive Health
Periodic Test II	Principles of Inheritance and Variation, Molecular Basis of Inheritance, Evolution,
Objective Test I	All the five chapters
Half Yearly	April 2026 to September 2026 (50% OF THE ENTIRE SYLLABUS)
Periodic Test III	Human health and diseases, Microbes in human welfare, Biotechnology: Principles and Processes.
Periodic Test IV	Biotechnology and its applications, Organisms and population, Ecosystem , Biodiversity and Conservation.
Objective Test II	All the chapters of Term I & Term II
Annual Exam	October 2026 to February 2027 (NEXT 50% OF THE ENTIRE SYLLABUS)

Blue Print of Question Paper

HALF YEARLY (2026-27)

S. No	Chapter name	MCQ (1)	A/R (1)	Very Short Ans (2)	Short Ans (3)	Case Based (4)	Long Answer (5)	Marks
1	Sexual Reproduction in Flowering Plants	2	-	1	1	-	1	12
2	Human Reproduction	2	1	1	1	1	-	12
3	Reproductive Health	2	1		2	-	-	9
4	Principles of Inheritance and Variation	2	1	1	1	-	1	13
5	Molecular Basis of Inheritance	2	1	1	1	-	1	13
6	Evolution	2	-	1	1	1	-	11

Blue Print of Question Paper

PRE BOARD 1 & II(2026-27)

S. No	Chapter name	MCQ (1)	A/R (1)	Very Short Ans (2)	Short Ans (3)	Case Based (4)	Long Ans (5)	Marks
1	Sexual Reproduction in Flowering Plants	1	1				1	16
2	Human Reproduction	1			1			
3	Reproductive Health	1				1		
4	Principles of Inheritance and Variation	1			1		1	20
5	Molecular Basis of Inheritance	1		1	1	1		
6	Evolution		1		1			
7	Biotechnology : Principles and Processes	1		1				12
8	Biotechnology and its Applications	1	1		1			
9	Human Health and Disease						1	12
10	Microbes in Human Welfare	2	1	1	1			
11	Organisms and Populations	1		1				10
12	Ecosystem	1			1		1	
13	Biodiversity and Conservation							

SUBJECT: MATHEMATICS (041)

CLASS – 12

TERM-I: April 2026 to September 2026

Month	No of Working days	Unit	Activities
APRIL	24	RELATIONS AND FUNCTIONS Types of relations: reflexive, symmetric, transitive and equivalence relations. One to one and onto functions. INVERSE TRIGONOMETRIC FUNCTIONS Definition, range, domain, principal value branch. Graphs of inverse trigonometric functions. MATRICES Concept, notation, order, equality, types of matrices, zero and identity matrix, transpose of a matrix, symmetric and skew symmetric matrices. Operations on matrices: Addition and multiplication and multiplication with a scalar. Simple properties of addition, multiplication and scalar multiplication. Non- commutativity of multiplication of matrices and existence of non-zero matrices whose product is the zero matrix (restrict to square matrices of order 2). Invertible matrices and proof of the uniqueness	ACTIVITY1 To verify that the relation R in the set L of a lines in a plane, defined by $R = \{(l, m) : l \perp m\}$ is symmetric but neither reflexive nor transitive. ACTIVITY2 To verify that the relation R in the set L of all lines in a plane, defined by $R = \{(l, m) : l \parallel m\}$ is an equivalence relation. ACTIVITY3 To demonstrate a function which is not one-one but is onto

		of inverse, if it exists; (Here all matrices will have real entries). DETERMINANTS Determinant of a square matrix (up to 3×3 matrices), minors, co-factors and applications of determinants in finding the area of a triangle. Adjoint and inverse of a square matrix. Consistency, inconsistency and number of solutions of system of linear equations by examples, solving system of linear equations in two or three variables (having unique solution) using inverse of a matrix.	ACTIVITY 4 To demonstrate a function which is one-one but not onto.
MAY	7	CONTINUITY AND DIFFERENTIABILITY Continuity and differentiability, chain rule, derivative of composite functions, derivatives of inverse trigonometric functions like $\sin^{-1} x$, $\cos^{-1} x$ and $\tan^{-1} x$, derivative of implicit functions. Concept of exponential and logarithmic functions. Derivatives of logarithmic and exponential functions. Logarithmic differentiation, derivative of functions expressed in parametric forms. Second order derivatives. Applications of Derivatives APPLICATIONS OF DERIVATIVES: Rate of change of quantities, increasing/decreasing functions, maxima and minima (first derivative test motivated geometrically and second derivative test given as a provable tool). Simple problems (that illustrate basic principles and understanding of the subject as well as real- life situations).	ACTIVITY 5 To explore the principal value of the function $\sin^{-1} x$ using a unit circle. ACTIVITY 6 To draw the graph of $\sin x$, $\cos x$ using the graph of $\sin x$ and $\cos x$ demonstrate the concept of mirror reflection (about the line $y = x$).
JUNE	12	APPLICATIONS OF DERIVATIVES: CONTINUED... INTEGRALS Integration as inverse process of differentiation. Integration of a variety of functions by substitution, by partial fractions and by parts, Evaluation of simple integrals of the following types and problems based on them. some special integral Fundamental Theorem of Calculus (without proof).	ACTIVITY 7 To sketch the graphs of a^x and $\log_a x$, $a > 0$, $a \neq 1$ and to examine that the y is mirror images of each other's
JULY	26	INTEGRALS: Basic properties of definite integrals and evaluation of definite integrals. APPLICATION OF THE INTEGRALS Applications in finding the area under simple curves, especially lines, circles/ parabolas/ellipses (in standard form only)	
AUGUST	24	DIFFERENTIAL EQUATIONS	

		Definition, order and degree, general and particular solutions of a differential equation. Solution of differential equations by method of separation of variables, solutions of homogeneous differential equations of first order and first degree. Solutions of linear differential equation.	
SEPTEMBER	10	REVISION FOR HALF YRALY EXAMINATION	First Term Exam

TERM- II :October 2026 to February 2027

Month	No of Working days	Unit	ACTIVITIES
OCTOBER	21	VECTORS Vectors and scalars, magnitude and direction of a vector. Direction cosines and direction ratios of a vector. Types of vectors (equal, unit, zero, parallel and collinear vectors), position vector of a point, negative of a vector, components of a vector, addition of vectors, multiplication of a vector by a scalar, position vector of a point dividing a line segment in a given ratio. Definition, Geometrical Interpretation, properties and application of scalar (dot) product of vectors, vector (cross) product of vectors. THREE-DIMENSIONAL GEOMETRY Direction cosines and direction ratios of a line joining two points. Cartesian equation and vector equation of a line, skew lines, shortest distance between two lines. Angle between two lines.	ACTIVITY 8 To establish a relationship between common logarithm (to the base 10) and natural logarithm (to the base e) of the number x. ACTIVITY 9 To find analytically the limit of a function $f(x)$ at $x=c$ and also to check the continuity of the function at that point.
NOVEMBER	16	LINEAR PROGRAMMING Introduction, related terminology such as constraints, objective function, optimization, graphical method of solution for problems in two variables, feasible and infeasible regions (bounded or unbounded), feasible and infeasible solutions, optimal feasible solutions (up to three non-trivial constraints). PROBABILITY Conditional probability, multiplication theorem on probability, independent events, total probability, Bayes' theorem.	
DECEMBER	21	PRE- BOARD EXAMINATION 1	
JANUARY	23	PRE-BOARD EXAMINATION 2	
FEBRUARY	7	BOARD EXAMINATION	

Portion of Different Tests / Examinations of the Session 2026-27

Name of Exam/ Test	Portion
Periodic Test I	Relation and function, Inverse trigonometrical Function, Matrices and Determinants
Periodic Test II	Continuity and Differentiability, Application of derivatives.
Objective Test I	Integration, Application of Integral, Differential Equation.
Half Yearly	Relation and function, Inverse trigonometrical Function, Matrices and Determinants, Continuity and Differentiability, Application of derivatives, Integration, Application of Integral, Differential Integral
Periodic Test III	Vector, 3-D Geometry, Linear programming, Probability
Pre-Board 1	Full syllabus
Pre-Board 2	Full Syllabus
Annual Exam	ANNUAL EXAMINATION

Blue Print of Question Paper

HALF YEARLY (2026-27)

S. No.	Chapter name	MCQ	AR	Very Short Ans 2M	Short Ans 3M	Long Ans 5M	VBQ 4M	Marks
1	RELATION AND FUNCTION	2	1		1(of 2)	1(of 2)	1	15
2	INVERSE TRIGONOMETRY FUNCTION	2		1	1(of 2)			7
3	MATRICES	3	1	1		1 (of 2)	1	15
4	DETERMINANTS	2						2
5	CONTINUTY AND DIFFERENTIABILITY	2		1(of 2)				4
6	APPLICATION OF DERIVATIVES	2		1	1	1	1	16
7	INDEFINITE INTEGRALS	1			2 (of 2)			7
8	DEFINITE INTEGRALS	2		1 (of 2)	1			7
9	APPLICATION OF INTEGRAL	2				1		7
	TOTAL	18	2	5	6	4	3	(38 Qs) 80 M

Blue Print of Question Paper
ANNUAL EXAM (2026-27)

S. No.	Chapter name	MCQ	AR	Very Short Ans	Short Ans	Long Ans	CBS	Marks
1	RELATION AND FUNCTION		1				1	5
2	INVERSE TRIGONOMETRY FUNCTION	1		1				3
3	MATRICES	2						2
4	DETERMINANTS	3		1		1		8
5	CONTINUITY AND DIFFERENTIABILITY	1	1	1(of 2)		1(of 2)		9
6	APPLICATION OF DERIVATIVES	1		1	2		1	13
7	INDEFINITE INTEGRALS	1			1(of 2)			4
8	DEFINITE INTEGRALS	1						1
9	APPLICATION OF INTEGRAL	1				1		6
10	DIFFERENTIAL EQUATION	2						2
11	VECTOR ALGEBRA	2		1(of 2)				6
12	3-D GEOMETRY				1(of 2)	1		8
13	LINEAR PROGRAMMING	2			1			5
14	PROBABILITY	1			1		1	8
	TOTAL	18	2	5	6	4	3	80

Class XII Subject: English Core(301)

Monthly Planner (2026-27)

TERM- I (APRIL 2026 - SEPTEMBER 2026)

Month	No. of working days	Flamingo (Prose/Poetry)	Vistas (Supplementary)	Creative Writing Skills
April	24	The Last Lesson, My Mother at Sixty-Six	The Third Level	Notice Writing
May	7	Lost Spring	-----	Formal Invitations & Replies
June	12	Keeping Quiet	The Tiger King	Informal Invitations & Replies
July	26	Deep Water, A Thing of Beauty	Journey to the End of the Earth	Article Writing, Report Writing
August	24	The Rattrap, Indigo	The Enemy	Letter to the Editor
September	10	Revision for Half yearly Exam	Revision for Half yearly Exam	Job Application with Bio-data

TERM- II (OCTOBER 2026 - FEBRUARY 2027)

October	21	Poets and Pancakes, Aunt Jennifer's Tigers	On the Face of It	Revisiting Writing Section
November	16	A Roadside Stand, The Interview	Memories of Childhood	Full Syllabus Revision
December	21	Going Places & Revision	Revision & Pre-Board Exams	Revision & Pre-Board Exams
January	23	Pre-Board Exams	Pre-Board Exams	Pre-Board Exams
February	7	Board Exam		

Key Syllabus Highlights

Flamingo (Prose):The Last Lesson, Lost Spring, Deep Water, The Rattrap, Indigo, Poets and Pancakes, The Interview, Going Places.

Flamingo (Poetry):My Mother at Sixty-Six, Keeping Quiet, A Thing of Beauty, A Roadside Stand, Aunt Jennifer's Tigers.

Vistas: The Third Level, The Tiger King, Journey to the End of the Earth, The Enemy, On the Face of It, Memories of Childhood.

Internal Assessment: Listening and Speaking Skills (ALS) and Project work. (20 marks)

Portion of Different Tests / Examinations of the session 2026-27				
Name of Exam / Test		Portion		
Periodic Test - I		The Last Lesson, My Mother at Sixty-Six, The Third Level, Notice Writing		
Periodic Test - II		Lost Spring, Keeping Quiet, Invitations & Replies		
Objective Test - I		The Tiger King, Journey to the end of the Earth, Deep Water, Keeping Quiet		
Half Yearly		The Last Lesson, My Mother at Sixty-Six, The Third Level, Lost Spring, Keeping Quiet, The Tiger King, Journey to the End of the earth, Deep Water, Keeping Quiet, The Rattrap, The Enemy, Indigo & Full Writing Section Portion		
Periodic Test - III		Poets and Pancakes, The Interview, Aunt Jennifer's Tigers, Invitations & Replies		
Periodic Test - IV		N/A		

Objective Test - II		N/A		
Pre- Board I		Full Syllabus		
Pre- Board II		Full Syllabus		
<u>Blue- Print</u>				
<u>Section A Reading Skills</u>				22 Marks
Reading Comprehension through Unseen Passage 12+10 = 22 Marks				
1. One unseen passage to assess comprehension, interpretation, analysis and inference. Vocabulary assessment will also be assessed via inference. The passage may be factual, descriptive or literary.				
2. One unseen case-based factual passage with verbal/visual inputs like statistical data, charts etc. to assess comprehension, interpretation, analysis, inference and evaluation.				
<i>Note: The combined word limit for both the passages will be 700-750 words. Multiple Choice Questions / Objective Type Questions and Short Answer Type Questions (to be answered in 40-50 words) will be asked.</i>				
<u>Section B Creative Writing Skills</u>				18 Marks
3. Notice, up to 50 words. One out of the two given questions to be answered. (4 Marks: Format :1 / Content: 2 / Accuracy of Spelling and Grammar: 1)				
4. Formal/Informal Invitation and Reply, up to 50 words. One out of the two given questions to be answered. (4 Marks: Format: 1 / Content: 2 / Accuracy of Spelling and Grammar :1).				
5. Letters based on verbal/visual input, to be answered in approximately 120-150 words. Letter types include application for a job with bio data or resume. Letters to the editor (giving suggestions or opinion on issues of public interest). One out of the two given questions to be answered. (5 Marks: Format: 1/Organisation of Ideas:1/Content:2/ Accuracy of Spelling and Grammar :1).				
6. Article/ Report Writing, descriptive and analytical in nature, based on verbal inputs, to be answered in 120-150 words. One out of the two given questions to be answered.				
(5 Marks: Format:1/Organisation of Ideas:1/Content:2/Accuracy of Spelling and Grammar:1).				
<u>Section C Literature Text Book and Supplementary Reading Text</u>				40 Marks

This section will have variety of assessment items including Multiple Choice Questions, Objective Type Questions, Short Answer Type Questions and Long Answer Type Questions to assess comprehension, interpretation, analysis, evaluation and extrapolation beyond the text.

7. One Poetry extract out of two, from the book Flamingo, to assess comprehension, interpretation, analysis, inference and appreciation. (6x1=6 Marks)

8. One Prose extract out of two, from the book Vistas, to assess comprehension, interpretation, analysis, evaluation and appreciation. (4x1=4 Marks)

9. One prose extract out of two from the book Flamingo, to assess comprehension, interpretation, analysis, inference and evaluation. (6x1=6Marks)

10. Short answer type questions (from Prose and Poetry from the book Flamingo), to be answered in 40-50 words each. Questions should elicit inferential responses through critical thinking. Five questions out of the six given, are to be answered. (5x2=10 Marks)

11. Short answer type questions, from Prose (Vistas), to be answered in 40- 50 words each. Questions should elicit inferential responses through critical thinking. Any two out of three questions to be done. (2x2=4 Marks)

12. One Long answer type question, from Prose/Poetry (Flamingo), to be answered in 120-150 words. Questions can be based on incident / theme / passage / extract / event as reference points to assess extrapolation beyond and across the text. The question will elicit analytical and evaluative response from the student. Any one out of two questions to be done. (1x5=5 Marks)

13. One Long answer type question, based on the chapters from the book Vistas, to be answered in 120-150 words, to assess global comprehension and extrapolation beyond the text. Questions to provide analytical and evaluative responses using incidents, events, themes, as reference points. Any one out of two questions to be done. (1x5=5 Marks)

