

**XII PASS NEET LIVE MICRO SCHEDULE**

S.No	Week No	WEEK DURATION	PHYSICS			CHEMISTRY			ZOOLOGY						
			TEST CODE	Chapter Name	Class Title	Subtopic	Chapter Name	Class Title	Subtopic	Chapter Name	Class Title	Subtopic			
1	W1	09/07/2024	Units and Measurements & Basic Mathematics	Units and Measurements	Units and measurement	Some basic concepts of chemistry	Mole concept & Formula representation of molecules	Some basic concepts of chemistry, Mole concept, Molar volume, Avogadro Law, Related Numerical, Percentage composition, Empirical Formula and molecular formula	The Living World	Characteristics and Basis of Classification of Living world	The Living World-Introduction, What is living?, Characteristics of living beings, Diversity in the living world, Nomenclature, Need for classification, Classification -Taxonomy, Systematics	LTN 2.1.1	Animal Tissues	ANIMAL TISSUES-I	ANIMAL TISSUES
		14/07/2024	Units and Measurements & Basic Mathematics	Differentiation & Integration	Differentiation and its application	Some basic concepts of chemistry	Concentration of solution & Interconversion between different Concentration term	(Molarity, Molality, % W/W, % W/V, % V/V), Mole Fraction and PPM (calculation of hardness)	The Living World	Taxonomic categories	The Living World-Taxonomic categories, Biological concept of species	LTN 2.1.2	Animal Tissues	ANIMAL TISSUES-II	ANIMAL TISSUES
		16/07/2024	Units and Measurements & Basic Mathematics	Integration	Integration	Redox reaction	Redox Reactions & Balancing of redox reaction	Oxidation, Reduction, Oxidation numbers, Balancing of redox reaction (Oxidation Number and Ion Electron method)	Biological Classification	Kingdom system of classification	Biological Classification-Introduction, Kingdom system of classification- two kingdom, three kingdom, four kingdom, five kingdom, six kingdom, Domains of life, Kingdom Monera Characters of monera, Shape of bacteria, Bacterial Life process - Respiration, Nutrition	LTN 2.2.1	Morphology	Morphology of Cockroach	Morphology: Cockroach
2	W2	21/07/2024	Units and Measurements & Basic Mathematics	Vector (calculus & screw gauge)	Vector and its types, Addition and subtraction of vectors	Redox reaction	Equivalent concept, equivalent weight, Normality and Titration	Equivalent concept and calculation of equivalent weight of Acid, Base, Salt and Oxidizing and Reducing Agent, Normality, Acid, base titration, Oxidation reduction titration (basic idea only)	Biological Classification	Kingdom -monera	Biological Classification-Reproduction: Asexual, Sexual recombination, Economic importance of bacteria, Archaeobacteria-methanogens, halophiles, thermoadophilic, Eubacteria - Cyanobacteria, Mycoplasma	LTN 2.2.2	Morphology	Morphology of Frog	Morphology: Frog
		23/07/2024	Vectors	Introduction and Vector Addition	Resolution of vectors and its application	Atomic structure	Sub atomic particles, planck theory and spectral behaviour of matter	Atomic structure: Sub atomic particles, Photoelectric effect, black body radiation, Emission and absorption spectra, Line spectrum of hydrogen,	Biological Classification	Kingdom -protista	Biological Classification-Protista-General characters, Chrysoytes, Dinoflagellates, Euglenoids, Slime moulds, Protozoans-major groups with some salient features	LTN 2.3.1	Animal Kingdom	Basics of classification	ANIMAL KINGDOM: Basis of Classification, Levels of organisation, Symmetry, Body-plan, Protostomous, Deuterostomous, Coelom-types, Open/Closed vascular system, Segmentation, Notochord, Broad classification of Kingdom Animalia based on common fundamental features
		28/07/2024	Vectors	Multiplication of vectors and its application	Resolution of vectors & Dot Product & Cross Product	Atomic structure	Bohr's model and dual behaviour of matter	Atomic structure: Bohr's model, Formula of Radius, velocity, and energy, de Broglie equation and related numericals, Heisenberg uncertainty principle	Biological Classification	Kingdom -Fungi	Biological Classification-Fungi-general characters, Characters of different classes of fungi- Phycomyces, Ascomycetes, Basidiomycetes, Deuteromycetes	LTN 2.3.2	Animal Kingdom	Porifera	ANIMAL KINGDOM: Broad classification of Kingdom Animalia based on common fundamental features, Porifera: General characters, Body wall, Types of cells, Skeleton: Spicules and spongin fibres, Canal system-(General outline), Reproduction with examples
3	W3	29/07/2024	Kinematics	Terms related to Kinematics-I	Kinematics: Introduction, Position, Path length and displacement	Atomic structure	Atomic orbitals, shape of orbitals, Electronic configuration of atoms, Aufbau Principle, Pauli's exclusion principle and Hund's rule of maximum multiplicity	Atomic structure: Atomic orbitals, shape of orbitals, Electronic configuration of atoms, Aufbau Principle, Pauli's exclusion principle and Hund's rule of maximum multiplicity	Biological Classification	Viruses, Bacteria and eukaryotes	Biological Classification-Virus-introduction, discovery, structural components, Structure of some viruses (TMV, bacteriophages) Diseases, Sub-viral agents - Viroids, Virusoids, Prions; Lichens, Mycorrhiza	LTN 2.3.3	Animal Kingdom	Chordata: Chordates and Vertebrates	Chordates: General characters, 3 subphyla-Urochordates, Cephalochordates, Vertebrata. Urochordates: General characters with examples. Cephalochordates: General characters with examples.
		30/07/2024	Kinematics	Terms related to Kinematics-II	Kinematics: Average velocity & average speed., Instantaneous velocity & speed, Acceleration.	Atomic structure	Quantum numbers, Wave mechanical model of atom	Atomic structure: Quantum numbers, Wave mechanical model of atom	Plant Kingdom	Classification systems	Plant Kingdom-introduction of plant kingdom, Classification systems-artificial, natural and phylogenetic, Branches of taxonomy	LTN 2.3.4	Animal Kingdom	Aschelminthes and Annelida	Aschelminthes / Nematode: General characters, Remete cells, Reproduction with examples, Life cycle of the Ascaris (outline), other nematodes-Ancylostoma, Wuchereria, Entamoeba, etc., Ameloida: General characters, Reproduction, Larval form, Nereis-Heteroecious, Pheretima, Hirudinaria
		04/08/2024	Kinematics	Motion in Straight line in variable acceleration	Kinematics: differential calculus application for variable acceleration in one dimensional motion, integral calculus application for variable acceleration in one dimensional motion, Graphs (Slope, area etc.)	Periodic table and properties	Periodic Law	Periodic properties: Law of triads, Newlands octaves and Mendeleevs periodic law and table, Modern periodic table and table	Plant Kingdom	Algae	Plant Kingdom-Algae-general characters, Economic importance of algae, Characters of different classes of algae- chlorophyceae, Phaeophyceae, rhodophyceae	LTN 2.3.5	Animal Kingdom	Arthropods and Mollusca	Arthropods: General characters of arthropods, Chitinous exoskeleton, Types of respiration, excretory structures, reproduction, Mollusca: General characters with examples
4	W4	06/08/2024	Kinematics	Motion in a plane, Motion in a plane with constant acceleration. Relative velocity in two dimensions.	Kinematics: Motion under gravity, Relative velocity one dimension	Periodic table and properties	Periodic properties trends	Periodic properties: Atomic radius & ionization enthalpy, Electron gain enthalpy, electronegativity, Periodicity of valence or oxidation state, Anomalous properties of elements of second period	Morphology of Flowering Plants	Root types and modifications	Morphology of Flowering Plants-Introduction, Root-types, function, regions, modifications	LTN 2.3.6	Animal Kingdom	Echinodermata	Echinodermata: General characters, Water ambulacral system,
		11/08/2024	Kinematics	Projectile motion-I	Kinematics: Maximum height of projectile, Horizontal range of projectile, Uniform circular motion	Chemical Bonding and Molecular structures	Covalent bond and types of Chemical Bonding	Chemical bonding: Kossel-Lewis Approach to chemical bond, Octet rule, Ionic bond, lattice enthalpy, hydration enthalpy, Covalent bond, coordinate covalent bond, bond length, bond enthalpy.	Morphology of Flowering Plants	Stem types and its modifications	Morphology of Flowering Plants-Introduction of stem, bud, function of stem, modification of stem	LTN 2.3.7	Animal Kingdom	Hemichordata	Hemichordata: General characters, stomochord, examples.
		13/08/2024	Kinematics	Projectile motion-II	Kinematics: Introduction, Aristotle's laws of motion, Newton's first law of motion	Chemical Bonding and Molecular structures	VT and hybridization	Chemical bonding: VBT, sigma and pi-bonds, Hybridization	Morphology of Flowering Plants	Leaf types and its modifications	Morphology of Flowering Plants-Leaf-introduction, parts, venation, types (simple and compound leaf), Leaf-Phyllotaxy, Modifications, Inflorescence - racemose and cymose, Flower-terminology, symmetry	LTN 2.3.8	Animal Kingdom	Chordates: General characters, 3 subphyla-Urochordates, Cephalochordates, Vertebrata. Urochordates: General characters with examples. Cephalochordates: General characters with examples.	
5	W5	14/08/2024	Kinematics	Projectile motion & Kinematics of Circular Motion	Kinematics: Maximum height of projectile, Horizontal range of projectile, Uniform circular motion	Chemical Bonding and Molecular structures	VSEPR theory, and Hydrogen bonding	Chemical bonding: VSEPR theory, Dipole moment, Formal charge and Hydrogen bonding	Morphology of Flowering Plants	Flower and fruits and its parts	Morphology of Flowering Plants-Position of floral parts on thalamus, parts of flower (calyx and corolla), aestivation, Androecium-adhesion, cohesion, Gynoecium, Placentation, Fruits-parts, types, edible parts	LTN 2.3.9	Animal Kingdom	Vertebrata: Agnatha & Gnathostomata: Cyclostomata-General characters with examples. Petromyzon, Myxine	Vertebrata: Agnatha & Gnathostomata: Cyclostomata-General characters with examples. Petromyzon, Myxine
		15/08/2024	Laws of Motion	Basic introduction	Laws of Motion: Introduction, Aristotle's laws, The law of inertia, Newton's first law of motion	Chemical Bonding and Molecular structures	Molecular orbital theory and Bond Order	Chemical Bonding: Molecular orbital theory, Energy level diagram of O2 N2, Bond Order	Morphology of Flowering Plants	seed and flower losses-I	Morphology of Flowering Plants-Structure of dicotyledonous and monocotyledonous seed Families-brassicaceae, fabaceae, solanaceae, bilisaceae.	LTN 2.3.10	Animal Kingdom	Fishes: General characters, Classes-Placodermi, Chondrichthyes, Osteichthyes: Differences between cartilaginous & bony fishes, Scollodon, Chimera, Eoacotus, Labro, Amphibia: General characters and examples.	Fishes: General characters, Classes-Placodermi, Chondrichthyes, Osteichthyes: Differences between cartilaginous & bony fishes, Scollodon, Chimera, Eoacotus, Labro, Amphibia: General characters and examples.
		18/08/2024	Laws of Motion	Newton's 2nd & 3rd law of motion and KE	Laws of Motion: Newton's 2nd law of motion, Newton's third law of motion, Equilibrium of a particle, Common forces in mechanics	Thermodynamics and Chemical Energetics	First Law of Thermodynamics and Enthalpy	Thermodynamics and Chemical Energetics: Internal Energy, Work, Heat, Volume expansion work, First Law of thermodynamics, Enthalpy, Relation between Enthalpy and Internal energy, numericals	Morphology of Flowering Plants	Flower losses-II	Morphology of Flowering Plants-Structure of dicotyledonous and monocotyledonous seed Families-brassicaceae, fabaceae, composite, gramineae, malvaceae	LTN 2.3.11	Animal Kingdom	Reptilia: True land vertebrates, General characters with examples, Aves: General characters with examples	Reptilia: True land vertebrates, General characters with examples, Aves: General characters with examples
6	W6	19/08/2024	Laws of Motion	Linear Momentum, Conservation of momentum (Rocket Propulsion)	Laws of Motion: Momentum, Conservation of momentum (Rocket Propulsion)	Thermodynamics and Chemical Energetics	Second Law of Thermodynamics	Thermodynamics and Chemical Energetics: The System & surrounding, Extensive & Intensive properties, State and path function, Thermodynamic process, Isothermal Reversible and Irreversible process	Morphology of Flowering Plants	Flower losses-III	Morphology of Flowering Plants-Structure of dicotyledonous and monocotyledonous seed Families-brassicaceae, fabaceae, composite, gramineae, malvaceae	LTN 2.3.12	Animal Kingdom	Mammalia: General characters, Subclasses-Protheria, Metatheria, Eutheria	Mammalia: General characters, Subclasses-Protheria, Metatheria, Eutheria
		25/08/2024	Laws of Motion	Newton's 2nd & 3rd law of motion and KE	Laws of Motion: Newton's 2nd law of motion, Newton's third law of motion, Equilibrium of a particle, Common forces in mechanics	Thermodynamics and Chemical Energetics	First Law of Thermodynamics and Enthalpy	Thermodynamics and Chemical Energetics: Internal Energy, Work, Heat, Volume expansion work, First Law of thermodynamics, Enthalpy, Relation between Enthalpy and Internal energy, numericals	Biomolecules	Primary and secondary metabolites, and monoterpenes	Biomolecules-Primary and secondary metabolites, Carbohydrates, Monosaccharides, Triose, Pentose, Hexose, Heptose, Derivatives of monosaccharides	LTN 2.4.1	The Cell Unit of Life	CELL: THE UNIT OF LIFE: Introduction, What is a cell?, Cell theory, An overview of cell, Prokaryotic cell structure, Gram staining, Eukaryotic cell structure, Difference between prokaryotic and eukaryotic cell, difference between plant cell and animal cell, plasma membrane	CELL: THE UNIT OF LIFE: Introduction, What is a cell?, Cell theory, An overview of cell, Prokaryotic cell structure, Gram staining, Eukaryotic cell structure, Difference between prokaryotic and eukaryotic cell, difference between plant cell and animal cell, plasma membrane
		21/08/2024	Laws of Motion	Friction	Laws of Motion:Friction	Thermodynamics and Chemical Energetics	work and heat, Heat capacity	Thermodynamics and Chemical Energetics: Heat capacity, Specific heat capacity, Molar heat capacity and constant pressure and volume, Relation between Cp and Cv, Measurement of du and dh	Biomolecules	Carbohydrate-Oligosaccharides and Polysaccharides	Biomolecules-Oligosaccharides, Functions of small carbohydrates, Polysaccharides-Homopolysaccharides & Heteropolysaccharides, storage & structural polysaccharides	LTN 2.4.2	The Cell Unit of Life	Cell wall, endomembrane system-endoplasmic reticulum, golgi body, Lysosome, Vacuole; Mitochondria, Plastid	Cell wall, endomembrane system-endoplasmic reticulum, golgi body, Lysosome, Vacuole; Mitochondria, Plastid
7	W7	26/08/2024	Dynamics of Circular motion	Dynamics of Circular motion	Laws of Motion: Dynamics of Circular motion	Enthalpy and Hess's law	Thermodynamics and Chemical Energetics: Enthalpy change in reaction, Enthalpy of combustion, formation, neutralization, Enthalpy of Phase transformation, Bond enthalpy, Enthalpy of atomization, Enthalpy of solution, Hess's law,	Structure and Antennae	Biomolecules	Structure and types of protein and Enzyme	Biomolecules-Structure of protein-Primary, secondary, tertiary, quaternary and Properties of proteins, Types of proteins and their functions. Lipids: Structure and classification of lipids, simple lipids, conjugated lipids, derived lipids, functions of lipids	LTN 2.4.3	The Cell Unit of Life	Cell organelles-I	Ribosome, Cytoskeleton, Centrosome and centrioles, Cilia and flagella, Nucleus, Chromosomes, Microbodies.
		27/08/2024	Work Power and Energy	Work Energy Theorem	Work Power and Energy: Notions of work & kinetic energy, The work-energy theorem, Work, Kinetic energy	Thermodynamics and Chemical Energetics	Principles involved in Enthalpy	Principles involved in Experiments: Enthalpy of solution of CuSO4, Enthalpy of neutralization,	Structure and types of protein and Enzyme	Biomolecules	Nitrogenous bases, nucleosides, nucleotides, higher nucleotides, types of nucleotides, functions of nucleotides, Nucleic acid-DNA, RNA structure, types and function	LTN 2.5.1	The Cell Unit of Life	Cell cycle	CELL CYCLE: Introduction, Cell cycle-phases of cell cycle
		28/08/2024	Work Power and Energy	Work done by force	Work Power and Energy: Work done by a variable force, The work energy theorem for variable force.	Thermodynamics and Chemical Energetics	Gibbs energy and Entropy	Thermodynamics and Chemical Energetics: Entropy, Entropy change in different process, Gibbs energy, Gibbs energy change and equilibrium, numericals.	Structure and types of protein and Enzyme	Biomolecules	Nucleic acid-DNA, RNA structure, types and function	LTN 2.5.2	The Cell Unit of Life	Mitosis-definition, karyokinesis, cytokinesis, Significance Meiosis-definition, meiosis & significance of meiosis.	Mitosis-definition, karyokinesis, cytokinesis, Significance Meiosis-definition, meiosis & significance of meiosis.
8	W8	29/08/2024	Work Power and Energy	Potential Energy	Work Power and Energy: The concept of potential energy, Various forms of energy, The potential energy of a spring.	Chemical Equilibrium	Chemical Equilibrium: Basic idea of reaction rate, law of mass action, equilibrium state, types of equilibrium, Qc, Equilibrium constant Kc and Kp, numericals	Biomolecules	Classification and mechanism of action of enzyme	Biomolecules Enzymes: Importance, activation energy, chemical nature, active site, Classes of enzymes Oxidoreductase, Transferase, Hydrolase, Lyase, Isomerase, Ligase, Enzymes: Properties of enzymes, Working of enzymes-Lock & Key model, Induce fit theory.	LTN 2.6.1	Breathing & Exchange of Gases	Human Respiratory system	BREATHING & EXCHANGE OF GASES: Respiratory organs, Human Respiratory system: Respiratory passage, structure of larynx, lungs, pleura, external & internal structure of lungs, alveoli.	
		30/08/2024	Work Power and Energy	Conservation of mechanical energy	Work Power and Energy: The conservation of mechanical energy, Motion in a Vertical Circle, The law of conservation of energy, Power	Chemical Equilibrium	Le Chatelier principle, Effect of change in pressure, change in temperature, Catalyst)	Chemical Equilibrium: Equilibrium constant Kp, relation between Kc and Kp, Effect of temperature on equilibrium constant Kc, relation between Kc and Gibbs energy	Biomolecules	Factors affecting the enzyme activity and enzyme inhibition	Biomolecules-Enzymes: Factors affecting the enzyme activity: substrate concentration, Km value, Product concentration, Temperature, pH, Enzyme inhibition-competitive, Non competitive, Allosteric enzymes, isoenzymes and Proenzymes	LTN 2.6.2	Breathing & Exchange of Gases	Mechanism of breathing	Mechanism of breathing-Inspiration, expiration, thoracic & abdominal breathing, Respiratory volumes and Respiratory capacities
		01/09/2024	Work Power and Energy	Collision	Work Power and Energy: Collisions - elastic and inelastic collision, Collision in one dimension, Collision in two dimensions.	Chemical Equilibrium	None	Chemical Equilibrium: Factor affecting equilibrium, (Le Chatelier principle, Effect of change in pressure, change in temperature, Catalyst)	Anatomy of Flowering Plants	meristematic tissue apical and single permanent tissue	Anatomy of Flowering Plants-Tissue, meristematic tissue - characters, types, shoot and root apex organization, Primary permanent tissues i.e., parenchyma, collenchyma and sclerenchyma w.r.t. nature, distribution, cell wall and cell structure and function.	LTN 2.6.3	Breathing & Exchange of Gases	Exchange of gases	Exchange of gases between alveoli & blood; exchange of gases between blood & tissue cells, Transport of oxygen, Bohr's effect; Transport of carbon dioxide.
9	W9	03/09/2024	ROTATION	Centre of mass, kinetics of rotational motion	ROTATION: Introduction, Centre of mass, Kinematics of rotational motion	Ionic Equilibrium	Ionic Equilibrium: Concept of Acid base (Arrhenius concept, Bronsted-Lowery, Lewis)	Anatomy of Flowering Plants	Complex permanent tissue xylem	Anatomy of Flowering Plants-Complex permanent tissue: Xylem - components of xylem and their structures, primary and secondary xylem, primary xylem- protylem and metaxylem	LTN 2.6.4	Breathing & Exchange of Gases	Regulation of respiration and respiratory disorders	Chloride shift (Hamburger's phenomenon), Haldane effect, Regulation of respiration: Neural regulation, chemical regulation, Respiratory disorders, Bronchitis, Asthma, Emphysema, Occupational respiratory disorder	
		08/09/2024	ROTATION	Torque and Angular momentum	ROTATION: Introduction to torque and angular momentum, Equilibrium of rigid body	Ionic Equilibrium	Ionic Equilibrium: Ionization of weak acid and Base, Ostwald's dilution law, Weak polyprotic acids	Anatomy of Flowering Plants	Complex permanent tissue phloem and epidermal and ground tissue system	Anatomy of Flowering Plants-Phloem- components, types of phloem (on the basis of position and origin), Tissue system - epidermal, ground tissue system,	LTN 2.7.1	Body Fluid & Circulation	Body fluid - blood and lymph	BODY FLUIDS & CIRCULATION: Fluid connective tissue-Blood & composition of blood-blood cells & plasma, Blood grouping, blood coagulation, clotting factors, lymph	
		09/09/2024	ROTATION	Max. Perpendicular and Parallel axis	ROTATION: Moment of inertia and its Theorems of perpendicular and parallel axis.	Ionic Equilibrium	Ionic Equilibrium: Ionization of weak acid and Base, Ostwald's dilution law, Weak polyprotic acids	Anatomy of Flowering Plants	Vascular Tissue System and anatomy of root stem and leaf	Anatomy of Flowering Plants-Vascular Tissue System, types of vascular bundles, internal structures of root, Internal structure of stem and leaf,	LTN 2.7.2	Body Fluid & Circulation	Internal structure of heart	Circulatory pathways, Human circulatory system-external & internal structure of heart, Histology of human wall, working of heart	
10	W10	10/09/2024	ROTATION	Rotational motion about an axis	ROTATION: rotational motion about a fixed axis, Dynamics of rotational motion about a fixed axis, Angular momentum in case of rotation about a fixed axis.	Ionic Equilibrium	Buffer solution and Buffer range	Ionic Equilibrium: Buffer solution, Type of Buffer solution, pH, Buffer capacity and Buffer range	Anatomy of Flowering Plants	secondary growth in dicot stem	Anatomy of Flowering Plants-Definition of secondary growth, types of tissues involved, Secondary growth in dicot stem - formation and activity of vascular cambium in stelar region, secondary structures in stelar region - annual rings, heartwood and sapwood	LTN 2.7.3	Body Fluid & Circulation	Cardiac cycle, and output, ECG	Cardiac cycle, Cardiac output, Heart sounds, conducting system of heart, ECG-Normal ECG & changes as indication of heart diseases
		15/09/2024	ROTATION	Conservation of angular momentum	ROTATION: Law of conservation of angular momentum, angular impulse	Ionic Equilibrium	Salt and Salt hydrolysis	Ionic Equilibrium: Salt and Salt hydrolysis	Anatomy of Flowering Plants	secondary growth in dicot root	Anatomy of Flowering Plants-Formation and activity of cork cambium in extra stelar region, periderm, bark, lenticels, Secondary growth in dicot root - origin and activity of vascular cambium in stelar region and cork cambium from pericycle.	LTN 2.7.4	Body Fluid & Circulation	Double circulation	Double circulation, heart beat, regulation of heart beat- Neural regulation, hormonal regulation
		27/09/2024	ROTATION	Metric Scale	Principles involved in Experiments: Metric Scale- the mass of a given object by the principle of moments	Ionic Equilibrium	Ksp and theory of indicators	Ionic Equilibrium: Solubility and Solubility product, theory of indicators	Photosynthesis in Higher Plants	photosynthesis -c3 and c4 pathway	Photosynthesis in Higher Plants-Introduction, importance, What do we know?, Historical account, Where does photosynthesis take place?, Photosynthesis pigments	LTN 2.7.5	Body Fluid & Circulation	Blood Vessels and direction of circulation	Blood Vessels-Aorta, Arteries, Arterioles, Capillaries, Venules, Veins, Vena cava, Lymphatic system, Disorders of circulatory system-Hypertension, Coronary artery diseases, Angina, Heart failure
11	W11	28/09/2024	GRAVITATION	Kepler's laws & Law of Gravitation	GRAVITATION: Introduction, Kepler's laws, Universal law of Gravitation, Gravitational constant	Purification and characterization of organic compound	Purification and characterization of organic compound: Methods of purification and separation of organic compounds	Purification and characterization of organic compound: Methods of purification and separation of organic compounds	Photosynthesis in Higher Plants	Absorption spectrum and action spectrum	Photosynthesis in Higher Plants-Absorption spectrum and action spectrum, What is light reaction?	LTN 2.8.1	Excretory Products & Their Elimination	Modes of excretion and human excretory system	EXCRETORY PRODUCTS & THEIR ELIMINATION: Mode of excretion- Ammonotelism, Urootelism, uricotelism (brief account), Different types of excretory structures in various animals, Human excretory system-structure of kidney, ureter, urinary bladder

11	W11	32	17/09/2024 to 22/09/2024	GRAVITATION: Acceleration due to gravity	GRAVITATION: Acceleration due to gravity of the earth. Acceleration due to gravity below & above the surface of the earth.	Purification and characterization of organic compound	Analysis of elements in Organic compounds	Purification and characterization of organic compound: Detection of determination of elements in organic compounds (C, H, N, X, S, P)	Photosynthesis in Higher Plants	Light reaction	Photosynthesis in Higher Plants Electron Transport System, Splitting of water, Cyclic and non-cyclic photophosphorylation	LTN 2.8.2	Excretion Product & Their Elimination	Structure of Nephron and its types	Nephron: Structure including Glomerulus, Bowman's capsule, PCT, Loop of Henle & DCT; and its types i.e., cortical and juxtamedullary nephrons.		
		33		GRAVITATION: Gravitational Potential & Gravitational Potential Energy	GRAVITATION: Gravitational potential energy, gravitational potential.	Purification and characterization of organic compound	Basic Language of Organic chemistry	Classification and IUPAC Nomenclature of organic compounds, Nomenclature of Aromatic compounds.	Photosynthesis in Higher Plants	Chemiosmotic theory and C3 cycle	Photosynthesis in Higher Plants Chemiosmotic theory, Dark reaction- C3	LTN 2.8.3	Excretion Product & Their Elimination	Mechanism of Urine formation	Urine formation: Glomerular Filtration-Structure of Malpighian body, Ultra filtration mechanism, Glomerular filtration rate, Filtration fraction, autoregulation of glomerular filtration, Tubular reabsorption & secretion.		
		34	23/09/2024	LTN-4	W9 (40%), W10 (40%)	EXAM SCHEDULE MERGES WITH NC BATCH											
12	W12	34	24/09/2024 to 29/09/2024	GRAVITATION: Escape velocity, Orbital Velocity and Centrifugal Force	GRAVITATION: Escape speed, Motion of a satellite, orbital velocity, time period and energy of satellite.	Purification and characterization of organic compound	Electronic displacement	Electronic displacement, inductive effect, Mesomeric effect, Resonance, Resonating structure, their stability	Photosynthesis in Higher Plants	C4 cycle	Photosynthesis in Higher Plants C4 cycle	LTN 2.8.4	Excretion Product & Their Elimination	Counter-current mechanism and Regulation of kidney function	Counter-current mechanism, Regulation of kidney function: Osmoregulation, control by Juxta glomerular apparatus, Renin-angiotensin-aldosterone system (RAAS) Atrial Natriuretic factor, ADH and Diabetes insipidus.		
		35		Mechanical properties of matter	Stress & Strain	Purification and characterization of organic compound	Electromagnetic effect, Atomicity and Hyperconjugation	Electromeric effect, Aromatic, Anti-aromatic, Non-aromatic compounds and Hyperconjugation	Photosynthesis in Higher Plants	Photorespiration and Factors affecting photosynthesis.	Photosynthesis in Higher Plants Comparison between C3 & C4-plants, Photorespiration, Factors affecting photosynthesis.	LTN 2.8.5	Excretion Product & Their Elimination	Urine composition and Disorders of excretory system	Urine: its composition, excretion mechanism, role of other organs like, kidney, lungs, liver and skin in excretion. Disorders: Diabetes mellitus, renal failure, renal calculi, nephritis, Dialysis and Artificial Kidney & Kidney transplantation.		
		36		Mechanical properties of matter	Modulus of Elasticity	Purification and characterization of organic compound	Reaction Intermediate and stability	Reaction intermediate carbocation, Carbanion, Free radical and their stability	Respiration in Plants	Glycolysis	Respiration in Plants Introduction, Respiratory substrates, Do plant breathe?, Glycolysis (mechanism)	LTN 2.9.1	Locomotion & Movement	Structure of skeletal muscle	LOCOMOTION & MOVEMENT: Types of movements: Ciliary, protozoan ciliary streaming, flagellar, muscular; Types of muscles and their structures. Muscle contraction-structure of contractile proteins-actin, myosin, troponin and tropomyosin.		
		37	30/09/2024	LTN-5	(40%, W12+W13) + (40%, W14 + W15) + (20 %, W1 to W11)	GANDHI JAYANTI (Wednesday)											
FESTIVAL HOLIDAY		37	02-10-2024														
19	W19	38	01/10/2024 to 06/10/2024	Mechanical properties of matter	Pressure	FLUIDS: Introduction, Pressure, Pascal's Law, Archimedes Principle	Structural isomerism	Isomerism: Structural isomerism	Respiration in Plants	Aerobic respiration- link reaction	Respiration in Plants Fermentation, Aerobic respiration- link reaction	LTN 2.9.2	Locomotion & Movement	Mechanism of muscle contraction	Mechanism of muscle contraction: Sliding filament theory, role of calcium and regulatory proteins, power stroke, role of ATP, various stages in cross bridge formation & break down, Ca <sup>2+</sup> cycle, red and white muscle fibres.		
		39		Mechanical properties of matter	Continuity Equation and Bernoulli's principle	FLUIDS: Streamline flow, Equation of continuity, Bernoulli's principle	Geometrical isomerism,	Geometrical isomerism, conformations in alkane and cycloalkane	Respiration in Plants	Krebs cycle and electron transport system	Respiration in Plants Krebs cycle, Electron transport system and oxidative phosphorylation.	LTN 2.9.3	Locomotion & Movement	Axial skeleton - Skull vertebrae column and its type	Appendicular skeleton: Pectoral girdle, bones of upper limb (Humerus, radius, ulna, carpals, metacarpals and phalanges), pelvic girdle, bones of lower limb (Femur, patella, tibia, fibula, tarsals, metatarsals, phalanges).		
		40	10/10/2024														
FESTIVAL HOLIDAY		40	11/10/2024														
FESTIVAL HOLIDAY		40	12/10/2024														
20	W20	41	08/10/2024 to 13/10/2024	Mechanical properties of matter	Viscosity	Surface tension: Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension: drops, bubbles, and capillary rise.	Hydrocarbon	Preparation of ALKANE	Hydrocarbon	Preparation of ALKANE (Hydrogenation of alkene and alkyne, from alkyl halide, Kolbe's electrolysis, decarbonylation)	Respiration in Plants	Aerobic pathway and K23 value	Respiration in Plants	Amphibolic pathway, Respiratory quotient.	LTN 2.9.5	Locomotion & Movement	Types of joints and disorder of joints
		41		Mechanical properties of matter	Surface tension	Hydrocarbon	Substitution reaction of alkane	Hydrocarbon: Reactions of alkane: Halogenation	Plant Growth and Development	Growth rates	Plant Growth and Development Growth, differentiation and Redifferentiation. Growth - characteristics, phases of growth, growth curve, growth rates - arithmetic growth and geometric growth, Absolute growth rate and relative growth rate.	LTN 2.10.1	Neural Control & Coordination	Interoceptive system and Nerve impulse generation and its transmission.	WILKINSON'S COORDINATION: Human neural system: Central and peripheral neural system, neuron as structural and functional unit of neural system, different types of neurons and their location. Nerve impulse, generation and its transmission. Referring membrane potential, action potential, action potential propagation, repolarization, hyperpolarization.		
		42	14/10/2024	LTN-6	W16 & W17 (40%), W18 & W19 (40%), W1 TO W15 (20%)	GANDHI JAYANTI (Thursday)											
21	W21	42	15/10/2024	Mechanical properties of matter	Principles involved in Experiment	Principles Involved in Experiments: Surface tension of water by capillary rise and effect of detergents, Co-efficient of viscosity of a given viscous liquid by measuring terminal velocity of a given spherical body.	Hydrocarbon	Chemical properties of alkane	Hydrocarbon	Reactions of alkane (wurtz reaction, isomerization, aromatization)	Plant Growth and Development	Conditions for plant growth and development	Plant Growth and Development	Differentiation, Dedifferentiation and Redifferentiation, Definition with examples, Development - Definition, factors regulating it, plasticity	LTN 2.10.2	Neural Control & Coordination	Types of Synapses
		43	20/10/2024	Thermal properties of matter	Heat & Temperature	THERMAL PROPERTIES OF MATTER: Introduction, Temperature & heat, measurement of temperature, Ideal gas equation & Absolute temperature, Thermal expansion.	Hydrocarbon	dehydrohalogenation reaction of alkyl halide	Hydrocarbon	Preparation of ALKENE (Dehydrohalogenation of alkyl halide)	Plant Growth and Development	Plant growth regulators- Auxin, Gibberellins	Plant Growth and Development	Growth hormones: Auxins, Gibberellins	LTN 2.10.3	Neural Control & Coordination	Structure of brain
		44		Thermal properties of matter	Calorimetry	THERMAL PROPERTIES OF MATTER: Specific heat capacity, Calorimetry, Change of state	Hydrocarbon	dehydration of alcohol	Hydrocarbon	Preparation of ALKENE (From di-halides, from dehydration of alcohol)	Plant Growth and Development	Plant growth regulators- Cytokinin, Ethylene, abscisic acid	Plant Growth and Development	Cytokinin w.r.t. its discovery, nature, types, biogenesis, transport, functions, Growth hormones - ethylene, abscisic acid w.r.t. all above features	LTN 2.10.4	Neural Control & Coordination	Spiral and Peripheral nervous system
		45		Thermal properties of matter	Conduction & Convection	THERMAL PROPERTIES OF MATTER: Heat transfer -Conduction, Convection (Including Newton's law of cooling)	Hydrocarbon	electronic addition reaction of alkene	Chemical properties of alkenes (addition reaction)	Plant Growth and Development	Seed dormancy	Plant Growth and Development-Dormancy - cause of dormancy, breaking of dormancy	LTN 2.11.1	Endocrine glands and hormone	Endocrine glands and hormones and disorders	Thyroid and Parathyroid glands	
22	W22	46	22/10/2024 to 27/10/2024	Thermodynamics	Basic Introduction & Thermodynamic process	THERMODYNAMICS: Introduction, Thermodynamic state variables & equation of state, Thermodynamic process, Thermal equilibrium, Zeroth law of thermodynamics, Heat	Hydrocarbon	Preparation of ALKANE	ALKENE preparation, properties	Plant Growth and Development	Seed germination	Plant Growth and Development- seed germination	LTN 2.11.2	Endocrine glands and hormone	Thyroid glands and its hormones and disorders	Thyroid: Structure, location, hormones and their functions. Disorders of thyroid gland- cretinism, myxedema, simple goiter, euthyroid goiter.	
		47		Thermodynamics	Internal energy and Work, First law of thermodynamics	THERMODYNAMICS: Internal energy and work, First law of thermodynamics	Hydrocarbon	Aromatic	Benzene (Preparation, chemical properties)	Sexual Reproduction in Flowering Plants	Flower and its parts	Sexual Reproduction in Flowering Plants	Introduction, Flower - A fascinating organ of angiosperms.	LTN 2.11.3	Endocrine glands and hormone	Parathyroid glands and its hormones and disorders	Parathyroid glands: Structure, location, hormone and mechanism of regulation of calcium homeostasis, disorders.
		48	28/10/2024	LTN-7	W20 (40%), W21 (40%), W1 TO W15 (20%)	(WEDNESDAY) CHHOTI WALI											
FESTIVAL HOLIDAY		48	30/10/2024														
FESTIVAL HOLIDAY		48	31/10/2024														
FESTIVAL HOLIDAY		48	01/11/2024														
FESTIVAL HOLIDAY		48	02/11/2024														
23	W23	48	29/10/2024 to 03/11/2024	Thermodynamics	Second law of Thermodynamics	THERMODYNAMICS: Specific heat capacity: Second law of thermodynamics, Principles involved in Experiments: Specific heat capacity in given (i) solid and (ii) liquid by method of mixtures	Hydrocarbon	Electrophilic substitution reaction of benzene	Electrophilic substitution reaction (Nitration, halogenation, sulphonation, alkylation and acylation)	Sexual Reproduction in Flowering Plants	Microspores	Sexual Reproduction in Flowering Plants - Stamen, Microsporangium, Microspores	LTN 2.11.4	Endocrine glands and hormone	Endocrine glands- Adrenal, its hormones and disorders	Adrenal gland: Structure, location, hormones and their functions, disorders-Addison's disease, Cushing syndrome, aldosteronism, adrenal virgism.	
		49		Kinetic Theory of gas	KTG - I	KINETIC THEORY OF GASES: Kinetic interpretation of temperature, RMS speed of gas molecules: Degree of freedom, Law of equipartition of energy and application to specific heat capacities of gases; Mean free path, Avogadro's number.	Haloalkanes and halo alkenes	Haloalkanes	Haloalkanes Preparation and physical properties	Sexual Reproduction in Flowering Plants	Pre-fertilisation - structures and events - I	Sexual Reproduction in Flowering Plants- Pre-fertilization - structures and events - I	LTN 2.11.5	Endocrine glands and hormone	Endocrine glands- Pituitary, its hormones and disorders	Pituitary and its hormones, Thyroid and its hormones. Pancreas: structure, location, hormone with their principal actions and disorders hypoglycemia, diabetes mellitus.	
24	W24	50	05/11/2024 to 10/11/2024	Kinetic Theory of gas	KTG - II	KINETIC THEORY OF GASES: Kinetic interpretation of temperature: RMS speed of gas molecules: Degree of freedom, Law of equipartition of energy and application to specific heat capacities of gases; Mean free path, Avogadro's number.	Haloalkanes and halo alkenes	Nucleophilic substitution reactions of haloalkanes	Haloalkanes a Nucleophilic substitution reactions of haloalkanes (SN1, SN2)	Sexual Reproduction in Flowering Plants	Structure of Pollen grain	Sexual Reproduction in Flowering Plants-Pollen grain,	LTN 2.11.6	Endocrine glands and hormone	Mechanism of hormone action and role of hormones	Gonads: (Ovary and testis: structure, location, hormones, of heart, kidney and gastrointestinal tract. Mechanism of hormone action (protein and steroid hormone) role of hormones as messengers: Regulation & amplification of signal; synergistic and antagonistic effects.	
		51		Oscillations	Kinematics of SHM	Oscillations: Introduction, Periodic & oscillatory motions, Simple harmonic motion and uniform circular motion, Velocity and acceleration in simple harmonic motion	Haloalkanes and halo alkenes	Elimination reactions in haloalkanes & Elimination versus substitution	Haloalkane Elimination reactions in haloalkanes, Elimination versus substitution	Sexual Reproduction in Flowering Plants	Development of male gametophyte	Sexual Reproduction in Flowering Plants-Development of male gametophyte	LTN 2.12.1	Human Reproductive Male reproductive system	Male reproductive system	Human Reproductive Male reproductive system: Testes, epididymis, Vas deferens, penis	
		52	11/11/2024	LTN-3	W16 TO W19 (40%), W20 & W21 (40%), W1 TO 15 (20%)	(THURSDAY) DHOLI											
25	W25	53	12/11/2024 to 17/11/2024	Oscillations	Dynamics of SHM	Oscillations: Force law for simple harmonic motion, Energy in simple harmonic motion. Some systems executing SHM.	Haloalkanes and halo alkenes	Haloalkanes	Haloalkanes: Preparation from diazonium salt, halogenation of benzene, hunsdiecker reaction, Reaction: ArNO2	Sexual Reproduction in Flowering Plants	Megaspores (ovule) and its Types	Sexual Reproduction in Flowering Plants: The pistil, Megasporangium (ovule), Types of ovules	LTN 2.12.2	Human Reproductive Male reproductive system	Accessory glands of male reproductive system	accessory glands of male reproductive system, seminal plasma and semen	
		54		Oscillations	Practice of SHM	Oscillations: Practice of SHM	Haloalkanes and halo alkenes	Elimination addition Reaction and E2 of Haloalkanes	Haloalkanes Elimination addition Reaction (benzoyne mechanism), Electrophilic substitution of ArX.	Sexual Reproduction in Flowering Plants	Type of pollination	Sexual Reproduction in Flowering Plants-Pollination - Objective, Kinds - Autogamy, Geitonogamy	LTN 2.12.3	Human Reproductive Male reproductive system	Female reproductive system	female reproductive system- fallopian tube, uterus, vagina,	
		54		Waves	Waves and its classification	WAVES: Introduction, Transverse & Longitudinal waves, Displacement relation in a progressive wave, The speed of a travelling wave, the principle of superposition of wave.	Alcohol, Phenol and Ether	Preparation of Alcohol	Alcohol: Preparation from Alkene, alkyl halide from Grignard reagent - Alcohol, Reactions: Reaction with Na, KX.	Sexual Reproduction in Flowering Plants	Agents of pollination	Sexual Reproduction in Flowering Plants- Xenogamy, Agents of pollination - Wind, Water, Insects	LTN 2.12.4	Human Reproductive Male reproductive system	Female external genitalia and its accessory gland	female external genitalia, Accessory gland of female reproductive system, Structure of Mammary glands	
		55		Waves	Reflection of waves; Stationary waves (Open Pipes), Beats, Principles involved in Experiments	Speed of sound in air at room temperature using a resonance tube	Alcohol, Phenol and Ether	chemical properties of Alcohol: Reactions	Alcohol: Reactions: Reaction with PMS, acetylation, Dehydration, Oxidation and reduction, Lucas test, Victor mayer test	Sexual Reproduction in Flowering Plants	Outbreeding devices, and Pollen-pistil interaction	Sexual Reproduction in Flowering Plants-Outbreeding devices, Pollen-pistil interaction	LTN 2.12.5	Human Reproductive Male reproductive system	Oogenesis and structure of ovum & ovary	Oogenesis and structure of ovum & ovary	
26	W26	56	19/11/2024 to 24/11/2024	Electrostatics	Electric Charge and its classification	ELECTROSTATICS: Introduction, Electric charges, Conductors and Insulators, Basic properties of electric charges	Alcohol, Phenol and Ether	Preparation of Ethars	Ethers: Structure, Williamson synthesis, Reaction of ether with HI only	Sexual Reproduction in Flowering Plants	double fertilisation and Post-fertilisation events	Sexual Reproduction in Flowering Plants-Double fertilisation, Post-fertilization, structures and events - Embryogeny	LTN 2.12.6	Human Reproductive Male reproductive system	Menstrual cycle	Menstrual cycle: Various events and its hormonal control	
		57		Electrostatics	Coulomb's law	ELECTROSTATICS: Coulomb's law, Force between multiple charges	Alcohol, Phenol and Ether	Phenol	Phenol: Acidic strength and preparation, Reaction	Sexual Reproduction in Flowering Plants	Embryo development and Seed	Sexual Reproduction in Flowering Plants-Embryo development, Seed	LTN 2.12.7	Human Reproductive Male reproductive system	Fertilisation events	Capacitance and acromyal reactions, fertilisation, fast block and slow block to prevent polyspermy.	
		58	25/11/2024	LTN-4	W20 (40%), W21 (40%), W1 TO W15 (20%)	(FRIDAY) GOVINDAN POOLA											
27	W27	58	26/11/2024 to 01/12/2024	Electrostatics	Electric Field	ELECTROSTATICS: Electric Field, Electric field due to system of charges, Electric dipole, Dipole in a uniform external field.	Carbonyl compounds	Preparation of Carbonyl compound	Carbonyl compound: method of preparation from Alkene, alkyne, and alcohol, Grignard reagent.	Sexual Reproduction in Flowering Plants	Apospory and Polyembryony	Sexual Reproduction in Flowering Plants-Fruit, Apomixis and Polyembryony.	LTN 2.12.8	Human Reproductive Male reproductive system	embryonic development I	embryonic development: cleavage, morula, blastula and implantation, Gastrulation, fate of three germinal layers.	
		59		Electrostatics	Electric Flux and Gauss's Law	ELECTROSTATICS: Electric field lines, Electric flux, Continuous charge distribution, Gauss's Law	Carbonyl compounds	Chemical properties of Carbonyl compound	Carbonyl compound: Method of preparation from By reduction of acid chlorides, esters, Preparation of aromatic aldehydes	Principles of inheritance & Variation	Mendel's law of inheritance	Principles of inheritance & Variation- introduction, Mendel's law of inheritance	LTN 2.12.9	Human Reproductive Male reproductive system	embryonic development I	pregnancy and embryonic development. Major features, function and types of placenta Parturition and lactation	
		60		Electrostatics	Electric Potential	ELECTROSTATICS: Introduction, electrostatic potential, potential due to a point charge, Potential due to an electric dipole, Potential due to a system of charges	Carbonyl compounds	reactivity towards nucleophilic substitution, addition of NaHCO3, HCN and Nitrogen nucleophiles	Carbonyl compound: reactivity towards nucleophilic substitution, addition of NaHCO3, HCN and Nitrogen nucleophiles	Principles of inheritance & Variation	Inheritance of one gene	Principles of inheritance & Variation- Inheritance of one gene: concept of factors and concept of segregation	LTN 2.13.1	Reproductive Health	Reproductive Health, problems & strategies	Reproductive Health- Reproductive Health, problems & strategies.	
		61		Electrostatics	Equipotential Surfaces	ELECTROSTATICS: Equipotential surfaces, Calculating field from potential,	Carbonyl compounds	Oxidation and reduction of Carbonyl compound	Carbonyl compound: Oxidation and reduction	Principles of inheritance & Variation	Incomplete dominance, co-dominance and multiple alleles	Principles of inheritance & Variation- incomplete dominance, co-dominance, multiple alleles	LTN 2.13.2	Reproductive Health	human population growth	Reproductive Health- population explosion, human population growth	
28	W28	62	03/12/2024 to 08/12/2024	Electrostatics	Electric Potential Energy	ELECTROSTATICS: Potential energy of a system of charges, Potential energy charge system in an external field, Electrostatics of conductors	Carbonyl compounds	enolise and enol type reaction of Carbonyl compound	Carbonyl compound: Aldol condensation, Cannizzaro reaction, perkin condensation	Principles of inheritance & Variation	Law of independent assortment	Principles of inheritance & Variation- Polygenic inheritance, Inheritance of two genes, Law of independent assortment	LTN 2.13.3	Reproductive Health	Methods of birth control and IUD	Methods of birth control, Medical termination of pregnancy (MTP)	
		63		Electrostatics	Capacitors and Capacitance	ELECTROSTATICS: Capacitors and capacitance, The parallel plate capacitor, charging of a capacitor	Carbonyl acid and Derivatives	preparation of Carbonyl acid	Carbonyl acid: Preparation and reactions	Principles of inheritance & Variation	Complementary genes, Duplicate genes, Epistasis	Principles of inheritance & Variation- Complementary genes, Duplicate genes, Epistasis	LTN 2.13.4	Reproductive Health	Sexual transmitted disease	Sex (Venereal Disease), infertility, ART (Assisted reproductive technology)	
		64	09/12/2024	LTN-9	W20 (40%), W21 (40%), W1 TO W15 (20%)	(SATURDAY) BHADDOOI											
		64		Electrostatics	Dielectric and Polarisation	ELECTROSTATICS: Dielectrics and polarization, Effect of dielectrics on capacitance	Amines	preparation of Amines	Amines preparation and Basic strength	Principles of inheritance & Variation	Polymers inheritance	Principles of inheritance & Variation- Polygenic inheritance	LTN 2.14.1	Evolution	Origin of Universe	Theories: Origin of Universe (Big bang theory), solar system	
		65	10/12/2024 to 15/12/2024	Electrostatics	Combination of capacitors & Energy storage in a capacitor	ELECTROSTATICS: Combination of capacitors, Energy stored in a capacitor	Amines	Amines reaction	Amines reaction	Principles of inheritance & Variation	Chromosomal theory of inheritance	Principles of inheritance & Variation- Chromosomal theory of inheritance	LTN 2.14.2	Evolution	Evolution: theories of origin of life	Evolution: theories of origin of life- panspermia theory, abiogenesis theory, theory of biogenesis	
		66		Current Electricity	Electric Current	CURRENT ELECTRICITY: Introduction, Electric current, Electric currents in conductors, Ohm's law, Drift of electrons and the origin of resistivity.	Amines	deamination and chemical reaction of diazonium salt	diazonium salt, Preparation of Acetanilide, p-nitro acetanilide, aziline yellow.	Principles of inheritance & Variation	Sex determination, Mutations: Gene mutation	Principles of inheritance & Variation- Sex determination, Mutations: Gene mutation	LTN 2.14.3	Evolution	Chemical origin of life and Stanley Miller's experiment	Chemical origin of life, Stanley Miller's experiment, prebiotic system coacervate and microsphere	

30	W5	67	17/12/2024 to 22/12/2024	Current Electricity	Resistance, Resistivity and Principles involved in experiments	<b>CURRENT ELECTRICITY:</b> Limitations of Ohm's law, Temperature dependence of resistivity, <b>Principles Involved in Experiments:</b> The resistance of a given wire varies with its length	Biomolecules	Carbohydrates	<b>Biomolecules: Carbohydrates</b>	Principles of Inheritance & Variation	pedigree analysis, Mendelian disorder	Principles of Inheritance & Variation-Genetic disorders pedigree analysis, Mendelian disorder	LTN 2.14.4	Evolution	evidence of evolution- Paleontological	Geological time scale, evidences of evolution-Paleontological, evolution of horse,				
		68	22/12/2024	Current Electricity	Combination of Resistors	<b>CURRENT ELECTRICITY:</b> Combination of resistors, series and parallel, Kirchhoff's laws and its application	Biomolecules	Amino acids, peptides, protein	<b>Biomolecules: Amino acids, peptide, protein</b>	Principles of Inheritance & Variation	Chromosomal disorder, Cytoplasmic inheritance	Principles of Inheritance & Variation-Chromosomal disorder, Cytoplasmic inheritance.	LTN 2.14.5	Evolution	Morphological and anatomical evidences of evolution	Morphological and anatomical evidences of evolution-Homologous, analogous				
		69		Current Electricity	Cell and its combination	<b>CURRENT ELECTRICITY:</b> Cells, emf, internal resistance, cells in series and in parallel, Electrical energy, power	Surface Chemistry	Principles Involved in Experiments	<b>Principles Involved in Experiments:</b> Preparation of lyophilic and lyophobic sols, Kinetic study of reaction of iodide ions with hydrogen peroxide	Molecular Basis of Inheritance	Structure of DNA	<b>Molecular Basis of Inheritance-</b> Introduction, The DNA-structure of polynucleotide chain	LTN 2.14.6	Evolution	Vestigial organs and embryological evidences	Vestigial organs, Evidences from connecting links, embryological evidences, biological evidences				
70	25/12/2024	<b>FESTIVAL HOLIDAY</b>																		
31	W5	70	24/12/2024 to 29/12/2024	Current Electricity	Wheatstone bridge, Meter bridge, Potentiometer	<b>CURRENT ELECTRICITY:</b> Wheatstone bridge, Meter bridge, <b>Principles Involved in Experiments:</b> The resistivity of the material of a given wire using a metre bridge	Chemical Kinetics	Rate of a chemical and its characteristics	Rate of a chemical reaction, Factors influencing rate of reactions, Rate expression and rate constant, Order and molecularity of a reaction	Chemical Kinetics	Chemical Kinetics	<b>Chemical Kinetics</b>	Molecular Basis of Inheritance	DNA packaging in prokaryotes	Molecular Basis of Inheritance- Derivation of DNA structure, DNA packaging in prokaryotes	LTN 2.14.7	Evolution	Adaptive radiation, Lamarck's Darwin's Law, Mutation theory	adaptive radiation, Lamarck's theory, Darwin's theory, Mutation theory	
		71		Magnetic effect of current	Motion of a charged particle	<b>MAGNETIC EFFECTS OF CURRENT:</b> Introduction, Magnetic force on a charged particle, Motion in a magnetic field, Motion in combined Electric and Magnetic fields	Chemical Kinetics	order of reactions.	Integrated rate equations for zero and first order reactions, Half life of a reaction, Pseudo first order reaction	Chemical Kinetics	Chemical Kinetics	<b>Chemical Kinetics</b>	Molecular Basis of Inheritance	DNA Packaging in eukaryotes and Transforming principle	Molecular Basis of Inheritance-DNA Packaging in eukaryotes, The search for genetic material, Transforming principle	LTN 2.14.8	Evolution	Hardy Weinberg principle	Hardy Weinberg principle: Gene flow, gene migration	
		72		Magnetic effect of current	Bohr's law & its application	<b>MAGNETIC EFFECTS OF CURRENT:</b> Bohr's law, Magnetic field on the axis of a circular current loop	Chemical Kinetics	Collision theory of effect of Temperature and catalyst	<b>Chemical Kinetics</b>	Effect of Temperature and catalyst on reaction rates, Arrhenius equation, Collision theory of chemical reactions	Chemical Kinetics	Chemical Kinetics	<b>Chemical Kinetics</b>	Molecular Basis of Inheritance	Evidence from experiments with bacteriophage	Molecular Basis of Inheritance- Evidence from experiments with bacteriophage, Properties of genetic material	LTN 2.14.9	Evolution	Evolution: genetic recombination and natural selection	mutation, genetic recombination, natural selection
73	01/01/2025	<b>FESTIVAL HOLIDAY</b>																		
32	W5	73		Magnetic effect of current	Ampere's law and its application	<b>MAGNETIC EFFECTS OF CURRENT:</b> Magnetic field due to a current element, Ampere's Circuit Law	Solutions	Henry law, Van't Hoff pressure and Raoult's law	Types of solutions, Expressing concentration of solutions, Solubility of a solid in a liquid and gas in a liquid (Henry law), Vapor pressure and Raoult's law for non-volatile solute	Solutions	Solutions	<b>Solutions</b>	Molecular Basis of Inheritance	RNA world	Molecular Basis of Inheritance- RNA world, Replication of DNA- The experimental proof, The machinery and enzymes.	LTN 2.14.10	Evolution	Brief account of evolution	Speciation: Allopatric and sympatric, Brief account of evolution: Evolution of plant forms	
		74	31/12/2024 to 05/01/2025	Magnetic effect of current	Solenoid and Toroid	<b>MAGNETIC EFFECTS OF CURRENT:</b> The solenoid and the toroid, Force between two parallel currents, the torque	Solutions	Ideal and non-ideal solutions	Raoult's law for binary solutions, Ideal and non-ideal solutions, Elevation of boiling point, azeotrope	Solutions	Solutions	<b>Solutions</b>	Molecular Basis of Inheritance	Transcription	Molecular Basis of Inheritance-Transcription- Transcription unit, Types of RNAs	LTN 2.14.11	Evolution	Evolutionary history of vertebrates	evolutionary history of vertebrates through geological period, Human evolution	
		75		Magnetic effect of current	Torque on a current loop, Magnetic Dipole & Galvanometer	<b>MAGNETIC EFFECTS OF CURRENT:</b> Torque on current loop, Magnetic dipole, Moving coil Galvanometer, <b>Principles Involved in Experiments:</b> Resistance and figure of merit of a galvanometer by half deflection method	Solutions	Colligative properties and van't Hoff factor	Depression of freezing point, Osmosis and osmotic pressure, reverse osmosis, Abnormal molar masses and van't Hoff factor	Solutions	Solutions	<b>Solutions</b>	Molecular Basis of Inheritance	Process of Transcription in prokaryotes and Eukaryotes	Molecular Basis of Inheritance-Process of Transcription in prokaryotes and Eukaryotes	LTN 2.15.1	Human health & disease	Various types of diseases in humans	<b>Human health &amp; disease</b> -Various types of diseases in humans-bacterial, viral diseases etc.	
76	06/01/2025	<b>FESTIVAL HOLIDAY</b>																		
33	W5	76	06/01/2025	Magnetism and matter	Magnetism and Matter -I	<b>MAGNETISM AND MATTER:</b> Introduction, The bar magnet, Magnetism and Gauss's Law, coefficient of bar magnet in uniform magnetic field	Electrochemistry	Kohlrausch's law	<b>Electrochemistry</b>	Electrochemistry	Electrochemistry	<b>Electrochemistry</b>	Molecular Basis of Inheritance	Genetic code - Silent features	Molecular Basis of Inheritance-Genetic code - Silent features	LTN 2.15.2	Human health & disease	Fungal diseases	Fungal: Ringworms, Helminths: ascariasis, elephantiasis	
		77	07/01/2025 to 12/01/2025	Magnetism and matter	Magnetism and Matter -II	<b>MAGNETISM AND MATTER:</b> Magnetization and magnetic intensity, Magnetic properties of materials, Permanent magnets and electromagnets	Electrochemistry	measurement of cell potential, Nernst equation, questions,	<b>Electrochemistry</b>	Electrochemical cells, Galvanic cells: measurement of cell potential, Nernst equation, questions,	Electrochemistry	Electrochemistry	<b>Electrochemistry</b>	Molecular Basis of Inheritance	tRNA - The adaptor molecule, and Translation	Molecular Basis of Inheritance-tRNA - The adaptor molecule, Translation,	LTN 2.15.3	Human health & disease	Protozoan diseases	Protozoan: Life cycle of Plasmodium vivax and Entamoeba histolytica
		78		Magnetic induction	Faraday's law, Self and Mutual Inductance	<b>ELECTROMAGNETIC INDUCTION:</b> Faraday's law, induced emf and current, Eddy currents, Self and mutual inductance	Electrochemistry	EMF and thermodynamics of cell reaction	<b>Electrochemistry</b>	EMF, Equilibrium constant, thermodynamics of cell reaction	Electrochemistry	Electrochemistry	<b>Electrochemistry</b>	Molecular Basis of Inheritance	Regulation of gene expression	Molecular Basis of Inheritance-Regulation of gene expression, Operon concept	LTN 2.15.4	Human health & disease	Types of immunity	Types of Immunity- Innate and acquired, active & passive immunity
79	15/01/2025	<b>FESTIVAL HOLIDAY</b>																		
34	W5	79		Magnetic induction	Lenz's Law, Self and mutual Inductance.	<b>ELECTROMAGNETIC INDUCTION:</b> Lenz's Law, Self and mutual Inductance.	Electrochemistry	Electrolysis: laws of electrolysis and fuel cell	<b>Electrochemistry</b>	Electrolysis and laws of electrolysis, Batteries: Primary and secondary batteries fuel cells.	Electrolysis	Electrolysis	Molecular Basis of Inheritance	Human genome Project	Molecular Basis of Inheritance-Genome and Human genome Project. Goals, Methodologies, Salient features, Applications and future challenges	LTN 2.15.5	Human health & disease	Normal and Cell Mediated immunity, vaccination and immunisation	humoral mediated immunity, Cell Mediated immunity, vaccination and immunisation	
		80	14/01/2025 to 19/01/2025	Magnetic induction	LR circuit & AC generator	<b>ELECTROMAGNETIC INDUCTION:</b> Inductance: Self inductance, LR circuit, Mutual Inductance, Inductance, AC Generator	P-Block	Boron Family	<b>P-Block (13 group)</b>	P-Block	Boron Family	<b>P-Block (13 group)</b>	Molecular Basis of Inheritance	DNA fingerprinting	Molecular Basis of Inheritance- DNA fingerprinting, protein bio-synthesis	LTN 2.15.6	Human health & disease	Lymphoid organs: primary and secondary	Allergies, auto immunity, immune system of the body, lymphoid organs: primary and secondary	
		81		AC Voltage and Current	AC Voltage and Current	<b>ALTERNATING CURRENT:</b> Introduction, AC voltage applied to a resistor, Representation of AC current and voltage by rotating vectors- phasors, AC voltage applied to an inductor.	P-Block	Carbon Family	<b>P-Block (14 group)</b>	P-Block	Carbon Family	<b>P-Block (14 group)</b>	Biotechnology: Principles and Processes	Tools of recombinant DNA technology	Biotechnology-Principles and Processes-Principles, Tools of recombinant DNA technology	LTN 2.15.7	Human health & disease	Dengue, Chikungunya, Tobacco abuse	Dengue, Chikungunya, Tobacco abuse	
82	20/01/2025	<b>FESTIVAL HOLIDAY</b>																		
35	W5	82		AC	AC voltage applied to a capacitor and LCR circuit	<b>ALTERNATING CURRENT:</b> AC voltage applied to a capacitor, AC voltage applied to a series LCR circuit,	P-Block	Nitrogen Family	<b>P-Block (15 group)</b>	Biotechnology: Principles and Processes	Separation and isolation of DNA fragments and cloning vectors	Biotechnology-Principles and Processes- Separation and isolation of DNA fragments, Cloning vectors and competent host	LTN 2.15.8	Human health & disease	AIDS	AIDS-Causes, detection, symptoms and prevention, Cancer-Causes, detection, diagnosis and treatment				
		83	21/01/2025 to 26/01/2025	AC	Power in AC circuit & Transformers	<b>ALTERNATING CURRENT:</b> Power in AC Circuit, The power factor, transformers.	P-Block	oxygen Family	<b>P-Block (16 group)</b>	Biotechnology: Principles and Processes	Recombinant DNA technology	Biotechnology-Principles and Processes-Processes of recombinant DNA technology	LTN 2.15.9	Human health & disease	Drugs and alcohol abuse	Drugs and alcohol abuse-Drugs, Cannabinoids, Sedatives and tranquilizers, Hallucinogens, Stimulants, Tobacco addiction.				
		84		EM Waves	EM Waves	<b>ELECTROMAGNETIC WAVES:</b> displacement current, Electromagnetic waves and their characteristics, Transverse nature of electromagnetic waves, Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, Gamma rays), Application of e.m. waves	P-Block	Principles related to Practical Chemistry	<b>Principles Involved in Experiments:</b> Kinetic study of reaction of iodide ions with Hydrogen peroxide, Preparation of Preparation of Mohr's salt, Potash Alum	Biotechnology and its Applications	Biotechnological applications in agriculture	Biotechnology and its Applications	Biotechnological applications in agriculture	LTN 2.15.10	Human health & disease	Adolescence, addiction & dependency	Adolescence, addiction & dependency, effects of drugs & alcohol abuse, prevention & control			
85	26/01/2025	<b>FESTIVAL HOLIDAY</b>																		
36	W5	85		Ray Optics	Introduction, Reflection of light	<b>RAY OPTICS:</b> Introduction, Reflection of light, spherical mirrors	P-Block	halogen Family and noble gas	<b>p-Block elements GP-17 &amp; 18</b>	Biotechnology and its Applications	Biotechnological applications in medicine	Biotechnology and its Applications-Genetically engineered insulin, vaccine production	LTN 2.16.1	Microbes in Human Welfare	Microbes in household products, Industrial products and sewage treatment	Microbes in Human Welfare Introduction, Microbes in household products, <b>Industrial products, Microbes in sewage treatment</b>				
		86	28/01/2025 to 02/02/2025	Ray Optics	Reflection of light in spherical surfaces	<b>RAY OPTICS:</b> Refraction, Total internal reflection, The focal length of Convex and Concave mirror.	d & f-Block elements	General physical properties of d-block elements	General properties of d-block elements: electronic configuration, size, lanthanide contraction	Biotechnology and its Applications	Gene Therapy and Molecular Diagnosis	Biotechnology and its Applications-Gene Therapy, Molecular Diagnosis	LTN 2.16.2	Microbes in Human Welfare	Microbes in Biogas production	Microbes in Biogas production				
		87		Ray Optics	Refraction of light	<b>RAY OPTICS:</b> Refraction at spherical surfaces, Refraction through lenses, <b>Principles Involved in Experiments:</b> The focal length of Convex lens, using the parallel ray method	d & f-Block elements	General chemical properties of d-block elements	d-Block elements: Oxidation state, Reducing nature, colour, oxides	Biotechnology and its Applications	Transgenic Animals, Biopiracy and patents	Biotechnology and its Applications-Transgenic Animals, Ethical Issues, Biopiracy and patents	LTN 2.16.3	Microbes in Human Welfare	Recombinant agents, Biofertilizers.	Biocatalytic agents, Biofertilizers.				
88	03/02/2025	<b>FESTIVAL HOLIDAY</b>																		
37	W5	88	04/02/2025 to 09/02/2025	Wave Optics	Introduction, Huygens Principle and its application	<b>WAVE OPTICS:</b> Introduction, Huygens Principle, Refraction and Reflection of plane waves using Huygens principle	d & f-Block elements	General physical and chemical properties of d-block elements	d-Block elements: Preparation and properties and uses of KMnO4	organisms and environment: Population Interactions	Population Interactions- Mutualism, commensalism, parasitism	organisms and environment: Population Interactions- mutualism, competition, predation	LTN 2.17.1	Biodiversity & Conservation	Levels of biodiversity	<b>Biodiversity &amp; conservation</b> Introduction, Levels of biodiversity, How many species are there on earth and how many in India?				
		89		Wave Optics	The Doppler's effect, VOSE	<b>WAVE OPTICS:</b> The Doppler's effect, Coherent and incoherent addition of waves, Interference of light waves, Young's double slit experiment.	d & f-Block elements	General physical and chemical properties of f-Block elements	d-Block elements: Preparation and properties and uses of K2Cr2O7	organisms and environment: Population Interactions	Population Interactions- Parasitism, Population attributes-growth.	organisms and environment: Population Interactions- parasitism, Population attributes-growth.	LTN 2.17.2	Biodiversity & Conservation	Patterns of biodiversity	<b>Biodiversity &amp; Conservation</b> -Patterns of biodiversity, Importance of biodiversity to the ecosystem.				
		90		Wave Optics	Diffraction, Polarization	<b>WAVE OPTICS:</b> Diffraction, Polarization, <b>Principles Involved in Experiments:</b> The plot of the angle of deviation vs angle of incidence for a triangular prism	d & f-Block elements	General physical and chemical properties of f-Block elements	f-Block elements: general characters, electronic configuration, size, oxidation number etc	organisms and environment: Population Interactions	Birth rate and death rate, age distribution	organisms and environment: Population Interactions: birth rate and death rate, age distribution	LTN 2.17.3	Biodiversity & Conservation	Importance of biodiversity	Importance of biodiversity to the ecosystem. Loss of biodiversity and its conservation.				
91	11/02/2025 to 16/02/2025	Dual Nature of matter	Photo-electric Effect	<b>DUAL NATURE OF MATTER AND RADIATION:</b> Dual nature of radiation, Photoelectric effect, Heitz and Lenard's observations, Einstein's photoelectric equation	Coordination compounds	Coordination compounds and Werner's theory of coordination compounds	<b>Coordination Compounds:</b> characters of complex compounds, types of ligand, Werner's theory of coordination compounds, Coordination Compounds VBT	Ecosystem	Ecosystem: Patterns, components, productivity and decomposition	Ecosystem	Ecosystem: Patterns, components, productivity and decomposition	LTN 2.18.1	Morphology	Morphology of Cockroach	<b>Morphology:</b> Cockroach: Habitat, External features, exoskeleton, Head-mountparts, thorax-thoracic appendages, Abdomen					
92		Dual Nature of matter	Wave - Particle Duality	<b>DUAL NATURE OF MATTER AND RADIATION:</b> particle nature of light, Matter waves: wave nature of particle, de Broglie relation.	Coordination compounds	CT of complex compounds including colour of different complexes	CT of complex compounds including colour of different complexes	Ecosystem	Energy flow: Pyramids of number, biomass, energy	Ecosystem	Energy flow: Pyramids of number, biomass, energy	LTN 2.18.2	Morphology	Anatomy of Cockroach -I	Cockroach: Digestive system, Respiratory system and mechanism respiration, Circulating system: Heart, blood sinuses and circulation					
93		Atoms and Nuclei	Atomic Models	<b>ATOMS:</b> Alpha-particle scattering experiment; Rutherford's model of atom, Bohr model, energy levels, hydrogen spectrum.	Coordination compounds	Isomerism in complex compound & Application of coordination compounds	Isomerism in complex compound, Sigma Bonding in metal carbonyls & organometallics, Stability of coordination compounds, Importance & Application of coordination compounds	The Living World	The Living World	The Living World	The Living World	LTN 2.18.3	Morphology	Anatomy of Cockroach -II	Cockroach: Excretory System, Nervous system, Sense organs of cockroach, Reproductive system of Cockroach-male & female system, fertilization, Development, Moulting					
94	17/02/2025	<b>FESTIVAL HOLIDAY</b>																		
39	W5	94		Atoms and Nuclei	Atomic Nuclei	<b>NUCLEI:</b> Composition and size of nucleus, atomic masses, Mass-energy relation, mass defect, binding energy per nucleon and its variation with mass number, nuclear fission, and fusion.	Qualitative analysis	Systematic Analysis of Anions	Qualitative analysis: Test of anion	Biomolecule	Biomolecule Revision	Biomolecule Revision	LTN 2.18.4	Morphology	Morphology and Anatomy of frog -I	Frog: Morphology, Anatomy, Digestive System, Respiratory System, Circulatory System				
		95	18/02/2025 to 23/02/2025	Semiconductors	Semiconductor Diodes	<b>Semiconductors:</b> semiconductor diode: I-V characteristics in forward and reverse bias; diode as a rectifier; I-V characteristics of LED, the photodiode, solar cell, and Zener diode, Zener diode as a voltage regulator, characteristic curves of a p-n junction diode in forward and reverse bias, characteristic curves of a Zener diode and finding reverse break down voltage.	Qualitative analysis	Systematic Analysis of cation	Qualitative analysis: Test of cations,	Biomolecule	Biomolecule Revision	Biomolecule Revision	LTN 2.18.5	Morphology	Anatomy of frog -II	Frog: Excretory System, Nervous System, Reproductive System, Economic importance.				
		96		Semiconductors	Logic Gates	<b>Semiconductors:</b> Identification of Diode, LED, Resistor. A capacitor from a mixed collection of such items, Logic gates (OR, AND, NOT, NAND and NOR).	Qualitative analysis	Systematic Analysis of cation	Qualitative analysis: Test of cations,	Biomolecule	Biomolecule Revision	Biomolecule Revision	LTN 2.19.1	Animal Kingdom	ANIMAL KINGDOM Revision	ANIMAL KINGDOM Revision				
97	03/03/2025	<b>FESTIVAL HOLIDAY</b>																		
		GTN-1	<b>COMPLETE SYLLABUS</b>																	