DEPARTMENT OF SCHOOL EDUCATION NEET SYLLABUS 2022 -23 ENGLISH MEDIUM

S.No	Date	Physics		Chemistry		Botany		ZooLogy	
		Chapter	Topic	Chapter	Topic	Chapter	Topic	Chapter	Topic
1	DAY-1	Physical World and Measurement	• Physics: Scope and excitement; nature of physical laws; Physics, technology and society. • fundamental and derived units.; errors in measurement; significant figures. • Dimensions of physical quantities, dimensional analysis and its applications	Some Basic Concepts of Chemistry Structure of Atom	• Dalton's atomic theory. • Atomic and molecular masses. Mole concept percentage composition and empirical and molecular formula, calculations based on stoichiometry. • Concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle, concept of orbital, quantum numbers, shapes of s,p and d orbitals, rules for filling electrons in orbitals- Aufbau principle, Pauli exclusion principles and Hund's rule, electronic configuration of atoms, stability of half filled and completely filled orbitals.	Living World	Disversity - Toxonomic categoies. Toxonomical Aids	Diversity in the living world	Animal kingdom Basic of classification - phy. Annelida. Phylum arthropoda - class mammelia
2	DAY-2	Kinematics	• Motion in a straight line, average speed and instantaneous velocity. Uniformly accelerated motion, velocity-time and position-time graphs, for uniformly accelerated motion (graphical treatment).	Classification of Elements and Periodicity in Properties Chemical Bonding and Molecular Structure	• Modern periodic law and long form of periodic table, periodic trends in properties of elements-atomic radii, ionic radii, ionization enthalpy, electron gain enthalpy, electronegativity, valence. • Valence electrons, ionic bond, covalent bond, bond parameters, Lewis structure, polar character of covalent bond, valence bond theory, resonance, geometry of molecules, VSEPR theory, concept of hybridization involving s, p and d orbitals and shapes of some simple molecules, molecular orbital theory of homonuclear diatomic molecules (qualitative idea only). Hydrogen bond.	Biological classification	Five kingdom satient frotares & classifiation of monera protista & fungi. Kingdom plantae, Animalia, viruses, viroids & lichens	Structural organisation in animals	Animal tissues - Earthwarm. Cockroach - Frog
3	DAY-3	SUNDAY							

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		Chapter	Topic	Chapter	Topic	Chapter	Topic	Chapter	Topic
4	DAY-4	Kinematics	• Scalar and vector quantities: addition and subtraction of vectors. Relative velocity. • Unit vectors. Resolution of a vector in a plane-rectangular components. • Scalar and Vector products of Vectors. Motion in a plane. Cases of uniform velocity and uniform acceleration-projectile motion. Uniform circular motion	States of Matter: Gases and Liquids	• Boyle's law, Charle's law, Gay Lussac's law, Avogadro's law, ideal behaviour of gases, empirical derivation of gas equation. Avogadro number, ideal gas equation. Kinetic energy and molecular speeds (elementary idea), deviation from ideal behaviour, liquefaction of gases, critical temperature. • Liquid State- Vapour pressure, viscosity and surface tension (qualitative idea only, no mathematical derivations).	Plant Morphology	Root, Stem, Leaf	Digestion and Absorption	Digestive System - Digestion of food
5	DAY-5	Kinematics	• Intuitive concept of force. Inertia, Newton's first law of motion. Law of conservation of linear momentum and its applications, co-efficient of restitution.	Thermodynamics	• First law of thermodynamics-internal energy and enthalpy, heat capacity and specific heat, measurement of U and H, Hess's law of constant heat summation, enthalpy of : bond dissociation, combustion, formation, atomization, sublimation, phase transition, ionization, solution and dilution. • Introduction of entropy as state function, Second law of thermodynamics, Gibbs energy change for spontaneous and non-spontaneous process, criteria for equilibrium and spontaneity. • Third law of thermodynamics	Plant Morphology	Infiorescence, Flower, fruits seeds	Digestion and Absorption	Absorption of digested products - Disorders of Digestive system
6	DAY-6	Kinematics	• Equilibrium of concurrent forces. Static and Kinetic friction, laws of friction, rolling friction, lubrication.	Equilibrium	• Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of chemical equilibrium, equilibrium constant, factors affecting equilibrium-Le Chatelier's principle; ionic equilibrium- ionization of acids and bases, strong and weak electrolytes, degree of ionization, ionization of polybasic acids, acid strength, concept of pH., Hydrolysis of salts (elementary idea)., buffer solutions, Henderson equation, solubility product, common ion effect (with illustrative examples).	Plant Morphology	Jamilies - Jabaceal, Solanaceae. Algae, Bryophytes, Pteridophytes	Breathing and Exchange of gases	Respiratory organs - Exchage of gases. Transport of gases - Disorders of Respiratory system

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7	DAY-7	Kinematics, Work, Energy and Power	• Dynamics of uniform circular motion. Centripetal force, examples of circular motion (vehicle on level circular road, vehicle on banked road). • Work done by a constant force and variable force; kinetic energy, work-energy theorem, power. • potential energy of a spring, motion in a vertical circle, elastic and inelastic collisions in one and two dimensions.	Redox Reactions	• Concept of oxidation and oxidation and reduction, redox reactions oxidation number, balancing redox reactions in terms of loss and gain of electron and change in oxidation numbers.	Plant Kingdom	Gymnosperms, Angiosperms, plant life cycle	Body Fluids and circulation	Lood - Circulatory pathways
8	DAY-8	Motion of System of Particles and Rigid Body	• Centre of mass system, momentum conservation and centre of mass motion. Centre of mass of a rigid body; centre of mass of uniform rod. • Moment of a force,-torque, angular momentum, conservation of angular momentum with some examples.	Hydrogen	• Occurrence, isotopes, preparation, properties and uses of hydrogen; hydrides-ionic, covalent and interstitial; physical and chemical properties of water, heavy water; hydrogen peroxide-preparation, reactions, uses and structure	Anatomy of flowerinig plant	Tissues, Types. Anatomy of Root, Stem & leaf - Dicot & Monocot	Body Fluids and circulation. Excretory products and their elimination	Double Circulation - Disorders of circulatory sytem. Human Excretory system - Mechanism of concentration of the filtrate
9	DAY-9	Motion of System of Particles and Rigid Body	• Equilibrium of rigid bodies, rigid body rotation and equation of rotational motion, comparison of linear and rotational motions; moment of inertia, radius of gyration. Values of M.I. for simple geometrical objects (no derivation). • Statement of parallel and perpendicular axes theorems and their applications.	s-Block Elements (Alkali and Alkaline earth metals)	• General introduction, electronic configuration, occurrence, anomalous properties of the first element of each group, diagonal relationship, trends in the variation of properties (such as ionization enthalpy, atomic and ionic radii), trends in chemical reactivity with oxygen, water, hydrogen and halogens; uses. • Preparation and Properties of Sodium carbonate, sodium chloride, sodium hydroxide and sodium hydrogencarbonate, biological importance of sodium and potassium. • Industrial use of lime and limestone, biological importance of Mg and Ca.	Anatomy of flowerinig plant	Secondary growth	Excretory products and their elimination	Regulation of Kidney function - Disorders of the Excretory system
10	DAY-10	SUNDAY							

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11	DAY-11	Gravitation	• Kepler's laws of planetary motion. The universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth.	Some p-Block Elements	• General Introduction to p-Block Elements. • Group 13 elements: General introduction, electronic configuration, occurrence, variation of properties, oxidation states, trends in chemical reactivity, anomalous properties of first element of the group; Boron, some important compounds: borax, boric acids, boron hydrides. Aluminium: uses, reactions with acids and alkalies. • General 14 elements: General introduction, electronic configuration, occurrence, variation of properties, oxidation states, trends in chemical reactivity, anomalous behaviour of first element. Carbon, allotropic forms, physical and chemical properties: uses of some important compounds: oxides. • Important compounds of silicon and a few uses: silicon tetrachloride, silicones, silicates and zeolites, their uses.	Cell the unit of life	Cell theory, prokaryotic & eukaryotic cells	Locomotion ans Movement	Types of movement - Muscle
12	DAY-12	Gravitation	• Gravitational potential energy; gravitational potential. Escape velocity, orbital velocity of a satellite. Geostationary satellites.	Organic Chemistry- Some Basic Principles and Techniques	• General introduction, methods of purification qualitative and quantitative analysis, classification and IUPAC nomenclature of organic compounds. • Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyper conjugation. • Homolytic and heterolytic fission of a covalent bond: free radials, carbocations, carbanions; electrophiles and nucleophiles, types of organic reactions.	Cell the unit of life	Cell organelles	Locomotion ans Movement	Skeletal system - Disorders of Muscular and skeletal system

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13	DAY-13	Properties of Bulk Matter	• Hooke's law, Young's modulus, bulk modulus, shear, modulus of rigidity, poisson's ratio; elastic energy.	Hydrocarbons	• Alkanes- Nomenclature, isomerism, conformations (ethane only), physical properties, chemical reactions including free radical mechanism of halogenation, combustion and pyrolysis.• Alkanes-Nomenclature, structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparation: chemical reactions: addition of hydrogen, halogen, water, hydrogen halides (Markovnikov's addition and peroxide effect), ozonolysis, oxidation, mechanism of electrophilic addition. • Alkynes-Nomenclature, structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction of- hydrogen, halogens, hydrogen halides and water.	Biomolecules	Primary secondary metabolites	Neural central and co-ordination	neural system - Neuron structure and function
14	DAY-14	Properties of Bulk Matter	• Viscosity, Stokes' law, terminal velocity, Critical velocity, Bernoulli's theorem and its applications.	Hydrocarbons	• Aromatic hydrocarbons- Introduction, IUPAC nomenclature; Benzene; resonance, aromaticity; chemical properties: mechanism of electrophilic substitution-Nitration sulphonation, halogenation, Friedel Craft's alkylation and acylation; directive influence of functional group in mono-substituted benzene; carcinogenicity and toxicity.	Biomolecules	Structure & function of proteins, carbohydrates, lipids, nucleic acids	Neural central and co-ordination	Central nevrous - Reflex arc
15	DAY-15	Properties of Bulk Matter	• Surface energy and surface tension, angle of contact, excess of pressure, application of surface tension ideas to drops, bubbles and capillary rise.	Environmental Chemistry	• Environmental pollution: Air, water and soil pollution, chemical reactions in atmosphere, smogs, major atmospheric pollutants; acid rain ozone and its reactions, effects of depletion of ozone layer, greenhouse effect and global warming-pollution due to industrial wastes; green chemistry as an alternative tool for reducing pollution, strategy for control of environmental pollution.	Biomolecules	Enzymes - Types, properties & enzyme action	Neural central and co-ordination	Sensory reception and processing

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16	DAY-16	Oscillations and Waves	Simple harmonic motion(SHM) and its equation; phase; oscillations of a spring-restoring force and force constant. • energy in SHM –Kinetic and potential energies; simple pendulum-derivation of expression for its time period.	Solid State	• amorphous and crystalline solids (elementary idea), unit cell in two dimensional and three dimensional lattices, calculation of density of unit cell, packing in solids, packing efficiency, voids, number of atoms per unit cell in a cubic unit cell, point defects, electrical and magnetic properties.	Cell Cycle & cell division	Introduction - Mitosis	Chemical co-ordination and Integration	Endocrine glands and Hormones - Human endocrine system
17	DAY-17	SUNDAY							
18	DAY-18	Oscillations and Waves	• Wave motion. Longitudinal and transverse waves, speed of wave motion. Displacement relation for a progressive wave. Principle of superposition of waves, reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics. Beats. Doppler effect.	Solutions	• Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, colligative properties-relative lowering of vapour pressure, Raoult's law. • elevation of boiling point, depression of freezing point, osmotic pressure, determination of molecular masses using colligative properties abnormal molecular mass. Van Hoff factor.	Cell Cycle & cell division	Meiosis	Chemical co-ordination and Integration	Hormones of heart, Kidney and Gastro intentinal tract - Mechanism of Hormone action
19	DAY-19	HEAT	• Heat, temperature, thermal expansion; thermal expansion of solids, liquids, and gases. Anomalous expansion. Specific heat capacity: Cp, Cv- calorimetry; change of state – latent heat. • Heat transfer- conduction and thermal conductivity, Wein's displacement law. • Newton's law of cooling and Stefan's law.	Electrochemistry	• Redox reactions, conductance in electrolytic solutions, specific and molar conductivity variation of conductivity with concentration, kohlrausch's Law, electrolysis and Laws of electrolysis (elementary idea). • dry cell-electrolytic cells and Galvanic cells; lead accumulator, EMF of a cell, standard electrode potential, Relation between Gibbs energy change and EMF of a cell, fuel cells; corrosion.	Transport in plants	Means of transport, plant water relations,	Human reprodution	The male Reproductive system - Gametogenesis
20	DAY-20	Thermodynamics	Heat, work and internal energy. First law of thermodynamics. Isothermal and adiabatic processes. • Second law of the thermodynamics: Reversible and irreversible processes. Heat engines and refrigerators.	Chemical Kinetics	• Rate of a reaction (average and instantaneous), factors affecting rates of reaction; concentration, temperature, catalyst; order and molecularity of a reaction; rate law and specific rate constant.	Transport in plants	Long distance transport, water movements, Transpiration	Human reprodution	Menstrual cycle - Parturition and lactation (Refer - NCERT - Text Book)

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21	DAY-21	Behaviour of Perfect Gas and Kinetic Theory	• Equation of state of a perfect gas, work done on compressing a gas. • Kinetic theory of gases: Assumptions, concept of pressure. Kinetic energy and temperature; degrees of freedom, law of equipartition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path.	Chemical Kinetics	integrated rate equations and half life (only for zero and first order reactions); concept of collision theory (elementary idea, no mathematical treatment). Activation energy, Arrhenious equation.	Transport in plants	Uptake transport mineral nutrients	Reprodctive Health	Reproductive Health - Problem - Infertility
22	DAY-22	Electrostatics	• 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 a uniform electric field.	Surface Chemistry	• Adsorption-physisorption and chemisorption; factors affecting adsorption of gases on solids, catalysis homogeneous and heterogeneous, activity and selectivity: enzyme catalysis; colloidal state: distinction between true solutions, colloids and suspensions; lyophillic, lyophobic multimolecular and macromolecular colloids; properties of colloids; Tyndall effect, Brownian movement, electrophoresis, coagulation; emulsions- types of emulsions.	Mineral nutrition	Micro & Macronutrients Nitrogen Metabolism	Principles of Inheritance and Variation	Mutation, Sex determination Genetic Disorders
23	DAY-23	Electrostatics	• 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)	General Principles and Processes of Isolation of Elements	• Principles and methods of extraction- concentration, oxidation, reduction electrolytic method and refining. • occurrence and principles of extraction of aluminium, copper, zinc and iron.	Photosynthesis in higher plants	Light reaction, chemio & motic hypothesis calvin cycle	Molecular basic of Inheritance	The DNA - Genetic Material
24	DAY-24	SUNDAY							
25	DAY-25	Electrostatics	• 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 diploes in an electrostatic field.	p- Block Elements	• Group 15 elements: General introduction, electronic configuration, occurrence, oxidation states, trends in physical and chemical properties; preparation and properties of ammonia and nitric acid, oxides of nitrogen (structure only); Phosphorous- allotropic forms; compounds of phosphorous: preparation and properties of phosphine, halides (PCI3, PCI5) and oxoacids (elementary idea only).	Photosynthesis in higher plants	C4 pathway, photore & piration factors offfecting photosynthnthesis	Molecular basic of Inheritance	RNA world - Replication

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26	DAY-26	Electrostatics	• 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, Van de Graaff generator.	p- Block Elements	• Group 16 elements: General introduction, electronic configuration, oxidation states, occurrence, trends in physical and chemical properties; dioxygen: preparation, properties and uses; classification of oxides; ozone. Sulphur – allotropic forms; compounds of sulphur: preparation, preparation, properties and uses of sulphur dioxide; sulphuric acid: industrial process of manufacture, properties and uses, oxoacids of sulphur (structures only).	Respiration in plants	Glycolysis, TCA cycle, fermentation Electron transport	Molecular basic of Inheritance	Transcription
27	DAY-27	Current Electricity	• Electric current, flow of electric charges in a metallic conductor, drift velocity and mobility, and their relation with electric current; Ohm's law, electrical resistance, V-I characteristics (liner and non-linear), electrical energy and power, electrical resistivity and conductivity. • Carbon resistors, colour code for carbon resistors; series and parallel combinations of resistors; temperature dependence of resistance.	p- Block Elements	• Group 17 elements: General introduction, electronic configuration, oxidation states, occurrence, trends in physical and chemical properties; compounds of halogens: preparation, properties and uses of chlorine and hydrochloric acid, interhalogen compounds oxoacids of halogens (structures only).• Group 18 elements: General introduction, electronic configuration, occurrence, trends in physical and chemical properties, uses.	Respiration in plants	Energy relations, Amphibolic pathway	Molecular basic of Inheritance	Genetic Code - Translation
28	DAY-28	Current Electricity	• Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel. • Kirchhoff's laws and simple applications. Wheatstone bridge, metre bridge. • Potentiometer-principle and applications to measure potential difference, and for comparing emf of two cells; measurement of internal resistance of a cell.	d and f Block Elements	• General introduction, electronic configuration, characteristics of transition metals, general trends in properties of the first row transition metals- metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation. Preparation and properties of K2Cr2O7 and KMnO4.• Lanthanoids- electronic configuration, oxidation states, chemical reactivity, and lanthanoid contraction and its consequences. • Actinoids: Electronic configuration, oxidation states and comparison with lanthanoids.	Plant growth & development	Phoses of growth growth rate, conditions of growth	Molecular basic of Inheritance	Regulation of gene Expression - Human genome project

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29	DAY-29	Magnetic Effects of Current and Magnetism	• 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 and toroidal solenoids. Force on a moving charge in uniform magnetic and electric fields. Cyclotron.	Coordination Compounds	• Coordination compounds: Introduction, ligands, coordination number, colour, magnetic properties and shapes, IUPAC nomenclature of mononuclear coordination compounds, isomerism (structural and stereo) bonding, Werner's theory	Plant growth & development	Development, growth regulators, Photoperidism, vernalisation	Molecular basic of Inheritance	DNA finger printing
30	DAY-30	Magnetic Effects of Current and Magnetism	• 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 a magnetic field; moving coil galvanometer-its current sensitivity and conversion to ammeter and voltmeter.	Coordination Compounds	• VBT,CFT; importance of coordination compounds (in qualitative analysis, biological systems).	Rerodution in organisms	Introdution, modes of reprodution	Evolution	Origin of life - Biological Evolution
31	DAY-31	SUNDAY							
32	DAY-32	Magnetic Effects of Current and Magnetism	• Current loop as a magnetic dipole and its magnetic dipole moment. Magnetic dipole moment of a revolving electron. Torque on a magnetic dipole (bar magnet) in a uniform magnetic field; bar magnet as an equivalent solenoid, magnetic field lines; Earth's magnetic field and magnetic elements.	Haloalkanes	• Haloalkanes: Nomenclature, nature of C –X bond, physical and chemical properties, mechanism of substitution reactions. Optical rotation.	Rerodution in organisms	Asexual, sexual, vegetative prepation reprodution	Evolution	Mechanism of Evalution - Origin and Evolution of man (Refer - NCERT -Text Book)
33	DAY-33	Electromagnetic Induction and Alternating Currents	• Electromagnetic induction; Faraday's law, induced emf and current; Lenz's Law, Eddy currents. Self and mutual inductance. • Alternating currents, peak and rms value of alternating current/ voltage; reactance and impedance; LC oscillations (qualitative treatment only), LCR series circuit, resonance; power in AC circuits, wattles current. • AC generator and transformer	Haloalkanes	• Haloarenes: Nature of C-X bond, substitution reactions (directive influence of halogen for monosubstituted compounds only). • Uses and environment effects of – dichloromethane, trichloromethane, tetrachloromethane, iodoform, freons, DDT.	Sexual reproduction in flowering plants	Development of male & female gametophytes Pollination..... Double fertilization	Human health and Disease	Common Diseasesin - Immunity

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34	DAY-34	Electromagnetic Waves	• Need for displacement current.	Alcohols, Phenols and Ethers	• Alcohols: 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, electrophillic substitution reactions, uses of phenols. • Ethers: Nomenclature, methods of preparation, physical and chemical properties uses.	Sexual reproduction in flowering plants	Post fertillization events, Development endosperm, embryo, seed Special models - Apomixis, parthenocorpy	Human health and Disease	AIDS, Cancer, Drugs and Alcohal abuse
35	DAY-35	Optics	• Reflection of light, spherical mirrors, mirror formula. Refraction of light, total internal reflection and its applications optical fibres, refraction at spherical surfaces, lenses, thin lens formula, lens-maker's formula. Magnification, power of a lens, combination of thin lenses in contact combination of a lens and a mirror. Refraction and dispersion of light through a prism, Scattering of light. • Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.	Aldehydes, Ketones and Carboxylic Acids	• Aldehydes and Ketones: Nomenclature, nature of carbonyl group, methods of preparation, physical and chemical properties; and mechanism of nucleophilic addition, reactivity of alpha hydrogen in aldehydes; uses. • Carboxylic Acids: Nomenclature, acidic nature, methods of preparation, physical and chemical properties; uses.	Priciples of inheritance & variation	Mendelian inheritance co-dominance	Biotechnology and its application	Biotechnological application in agri culture - Transgenic animals & Ethical usues
36	DAY-36	Optics	• Interference, Young's double hole experiment and expression for fringe width, coherent sources and sustained interference of light.	Organic Compounds Containing Nitrogen	• Amines: Nomenclature, classification, structure, methods of preparation, physical and chemical properties, uses, identification of primary secondary and tertiary amines.	Strategies for enhancement in food production	Plant breeding, tissue culture, SCP. Biofortification, Apiculture, Animal Husbandry	Microbes in human welfare	Microbes in house hold products - Microbes in sewage Treatment. Microbes in production of biogas - Microbes as biofertilizers
37	DAY-37	Optics	• Diffraction due to a single slit, width of central maximum. • Resolving power of microscopes and astronomical telescopes. Polarisation, plane polarized light; Brewster's law, Malaus law.	Organic Compounds Containing Nitrogen	• Cyanides and Isocyanides- will be mentioned at relevant places. • Diazonium salts: Preparation, chemical reactions and importance in synthetic organic chemistry.	Principles & process of Biotechnology	rDNA technology, clening vectors	Envirenmental Issues	Airpollution - Water pollution

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38	DAY-38	SUNDAY							
39	DAY-39	Dual Nature of Matter and Radiation	• Photoelectric effect, Einstein's photoelectric equation- particle nature of light. • □□atter waves- wave nature of particles, de Broglie relation.	Biomolecules	• Carbohydrates- Classification (aldoses and ketoses), monosaccharide (glucose and fructose), D.L. configuration, oligosaccharides (sucrose, lactose, maltose), polysaccharides (starch, cellulose, glycogen): importance. • Proteins- Elementary idea of – amino acids, peptide bond, polypeptides, proteins, primary structure, secondary structure, tertiary structure and quaternary structure (qualitative idea only), denaturation of proteins; enzymes. • Hormones- Elementary idea (excluding structure). • Vitamins- Classification and function. • Nucleic Acids: DNA and RNA	Principles & process of Biotechnology	Process of rDNA technology	Envirenmental Issues	Solid wastes - Global warming
40	DAY-40	Atoms and Nuclei Details:-	Composition and size of nucleus, atomic masses, isotopes, isobars; isotones. • Radioactivity- alpha, beta and gamma particles/ rays and their properties decay law. Mass-energy relation, mass defect; binding energy per nucleon and its variation with mass number, nuclear fission and fusion.	Polymers	• Classification- Natural and synthetic, methods of polymerization (addition and condensation), copolymerization. Some important polymers: natural and synthetic like polyesters, bakelite; rubber, Biodegradable and non-biodegradable polymers.	Organisms & Environment	Abiotic factor, Adaptations, Population attributes Population interaction	Envirenmental Issues	Ozone deplation - Deforesation
41	DAY-41	Electronic Devices	• semiconductor diode- I-V characteristics in forward and reverse bias, diode as a rectifier; I-V characteristics of LED, photodiode, solar cell, and Zener diode; Zener diode as a voltage regulator. Junction transistor, transistor action, characteristics of a transistor; transistor as an amplifier (common emitter configuration) and oscillator. Logic gates (OR, AND, NOT, NAND and NOR). Transistor as a switch .	Chemistry in Everyday Life	• Chemicals in medicines- analgesics, tranquilizers, antiseptics, disinfectants, antimicrobials, antifertility drugs, antibiotics, antacids, antihistamines. • Chemicals in food- preservatives, artificial sweetening agents, elementary idea of antioxidants. • Cleansing agents- soaps and detergents, cleansing action. • Practical chemistry (Only for JEE Students).	Ecosystem	Structure & function , productivity, Decomposers, Energy flow, Ecological pyramids, succession of plants, Nutrient cycle, Ecosystem services	Biodiversity and conservation	Biodiversity - Conservation of Biodiversity (Refer - NCERT Text Book)