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# AAKASH TEST PLANNER :
# DAILY PRACTICE TEST SCHEDULE & SYLLABUS FOR CLASS-XII

| DPT NAME | SYLLABUS |
|---|---|
| Botany Daily Test 01 for_Class_12th_Medical | Reproduction in Organisms:-Life span, Basic features of reproduction, Asexual reproduction-Features, Methods (Binary fission, Budding, Sporulation). |
| Botany Daily Test 02 for_Class_12th_Medical | Reproduction in Organisms:-Vegetative propagation - Natural and artificial (cutting) |
| Botany Daily Test 03 for_Class_12th_Medical | Reproduction in Organisms:-Artificial (Layering & grafting), Sexual reproduction - Features, Phases of life cycle |
| Botany Daily Test 04 for_Class_12th_Medical | Reproduction in Organisms:-Events i.e. Pre-fertilisation, Fertilization and Post-fertilization. |
| Botany Daily Test 05 for_Class_12th_Medical | Sexual Reproduction in Organisms:-Introduction, Flower - A fascinating organ of angiosperms, Pre-fertilization - structures and events - Stamen, Microsporangium, Microsporogenesis. |
| Botany Daily Test 06 for_Class_12th_Medical | Sexual Reproduction in Organisms:-Pollen grain, Development of male gametophyte, The pistil, Megasporangium (ovule), Types of ovules |
| Botany Daily Test 07 for_Class_12th_Medical | Sexual Reproduction in Organisms:-Megasporogenesis, Embryo sac/Female gametophyte development |
| Botany Daily Test 08 for_Class_12th_Medical | Sexual Reproduction in Organisms:-Pollination : Objective, Kinds - Autogamy, Geitonogamy, Xenogamy, Agents of pollination - Wind, Water, Insects |
| Botany Daily Test 09 for_Class_12th_Medical | Sexual Reproduction in Organisms:-Outbreeding devices, Pollen-pistil interaction |
| Botany Daily Test 10 for_Class_12th_Medical | Sexual Reproduction in Organisms:-Double fertilization, Post-fertilization structures and events - Endosperm |
| Botany Daily Test 11 for_Class_12th_Medical | Sexual Reproduction in Organisms:-Embryo development, Post fertilization, structure and events - Seed |
| Botany Daily Test 12 for_Class_12th_Medical | Sexual Reproduction in Organisms:-Fruit; Apomixis and Polyembryony. |
| Botany Daily Test 13 for_Class_12th_Medical | Principles of Inheritance & Variation:-Mendel's laws of inheritance - Dominance, Segregation |
| Botany Daily Test 14 for_Class_12th_Medical | Principles of Inheritance & Variation:-Explanation of the concept of dominance, Incomplete and co-dominance |
| Botany Daily Test 15 for_Class_12th_Medical | Principle of inheritance and variation |
| Botany Daily Test 16 for_Class_12th_Medical | Principles of Inheritance & Variation:-Multiple alleles, Pleiotropy, Inheritance of two genes, Law of independent assortment |
| Botany Daily test 17 for_Class_12th_Medical | Principles of Inheritance & Variation:-Complementary genes, Duplicate genes, Epistasis |
| Botany Daily Test 18 for_Class_12th_Medical | Principles of Inheritance & Variation:-Polygenic inheritance, Chromosomal theory of inheritance |
| Botany Daily Test 19 for_Class_12th_Medical | Principles of Inheritance & Variation:-Linkage and recombination |
| Botany Daily Test 20 for_Class_12th_Medical | Principles of Inheritance & Variation:-Sex determination, Mutations - Gene mutation |

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# AAKASH TEST PLANNER :
# DAILY PRACTICE TEST SCHEDULE & SYLLABUS FOR CLASS-XII

| DPT NAME | SYLLABUS |
|---|---|
| Botany Daily Test 21 for_Class_12th_Medical | Principles of Inheritance & Variation:-Mutations - Chromosomal aberrations, Genomatic mutation |
| Botany Daily Test 22 for_Class_12th_Medical | Principles of Inheritance & Variation:-Pedigree analysis, Cytoplasmic inheritance |
| Botany Daily Test 23 for_Class_12th_Medical | Principles of Inheritance & Variation:-Genetic disorders - Mendelian and Chromosomal disorders. |
| Botany Daily Test 24 for_Class_12th_Medical | Molecular Basis of Inheritance:-Introduction, The DNA-structure of polynucleotide chain, Derivation of DNA structure, DNA packaging in prokaryotes |
| Botany Daily Test 25 for_Class_12th_Medical | Molecular Basis of Inheritance:-Packaging in eukaryotes, The search for genetic material, Transforming principle, Evidence from experiments with bacteriophage, Properties of genetic material, |
| Botany Daily Test 26 for_Class_12th_Medical | Molecular Basis of Inheritance:-RNA world, Replication of DNA - The experimental proof, The machinery and enzymes. |
| Botany Daily Test 27 for_Class_12th_Medical | Molecular Basis of Inheritance:-Transcription - Transcription unit, Types of RNAs |
| Botany Daily Test 28 for_Class_12th_Medical | Molecular Basis of Inheritance:-Process of Transcription in prokaryotes, Transcription in Eukaryotes |
| Botany Daily Test 29 for_Class_12th_Medical | Molecular Basis of Inheritance:-Genetic code - Salient features |
| Botany Daily Test 30 for_Class_12th_Medical | Molecular Basis of Inheritance:-t-RNA - The adapter molecule, Translation. |
| Botany Daily Test 31 for_Class_12th_Medical | Molecular Basis of Inheritance:-Regulation of gene expression, Operon concept |
| Botany Daily Test 32 for_Class_12th_Medical | Molecular Basis of Inheritance:-Human genome project - Goals, Methodologies, Salient features, Applications and Future challenges, DNA fingerprinting. |
| Botany Daily Test 33 for_Class_12th_Medical | Strategies for Enhancement in Food Production:-Introduction, Plant breeding – Definition, Main steps |
| Botany Daily Test 34 for_Class_12th_Medical | Strategies for Enhancement in Food Production:-Green revolution, Plant breeding for disease resistance, Plant breeding for resistance to insect pests, Improved food quality, Anti nutritional factors, Single cell protein, Green manure, Energy crops, Petroleum plants, |
| Botany Daily Test 35 for_Class_12th_Medical | Strategies for Enhancement in Food Production:-Tissue culture – Definition, Environmental conditions, Types, Applications |
| Botany Daily Test 36 for_Class_12th_Medical | Microbes in Human Welfare:-Introduction, Microbes in household products, Industrial products. |
| Botany Daily Test 37 for_Class_12th_Medical | Microbes in Human Welfare:-Microbes in sewage treatment, Biogas production, |
| Botany Daily Test 38 for_Class_12th_Medical | Microbes in Human Welfare:-Biocontrol agents, Biofertilizers. |
| Botany Daily Test 39 for_Class_12th_Medical | Organisms and Populations:-Introduction, Levels of organisation, Major biomes. |
| Botany Daily Test 40 for_Class_12th_Medical | Organisms and Populations:-Abiotic Factors - Temperature, Light, Water, Soil |

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# AAKASH TEST PLANNER :
# DAILY PRACTICE TEST SCHEDULE & SYLLABUS FOR CLASS-XII

| DPT NAME | SYLLABUS |
|---|---|
| Botany Daily Test 41 for_Class_12th_Medical | Organisms and Populations:-Response to abiotic factors, Adaptations |
| Botany Daily Test 42 for_Class_12th_Medical | Organisms and Populations:-Population – characteristics, growth, growth models |
| Botany Daily Test 43 for_Class_12th_Medical | Organisms and Populations:-Population interactions. |
| Botany Daily Test 44 for_Class_12th_Medical | Ecosystem:-Introduction, Types of ecosystem, Components of ecosystem, Ecosystem structure, Productivity and decomposition. |
| Botany Daily Test 45 for_Class_12th_Medical | Ecosystem:-Energy flow, Ecological pyramids, Nutrient cycling |
| Botany Daily Test 46 for_Class_12th_Medical | Ecosystem:-Ecological succession, Ecosystem services. |
| Botany Daily Test 47 for_Class_12th_Medical | Biodiversity and Conservation:-Introduction, Levels of biodiversity, How many species are there on earth and how many in India?, Patterns of biodiversity, Importance of biodiversity to the ecosystem. |
| Botany Daily Test 48 for_Class_12th_Medical | Biodiversity and Conservation:-Loss of biodiversity and its conservation. |
| Botany Daily Test 49 for_Class_12th_Medical | Environmental Issues:-Introduction, Air pollution and its control |
| Botany Daily Test 50 for_Class_12th_Medical | Environmental Issues:-Noise pollution, Water pollution and its control, Solid waste., Agrochemicals and their effects, Radioactive pollution |
| Botany Daily Test 51 for_Class_12th_Medical | Environmental Issues:-Greenhouse effect and global warming, Ozone depletion, Degradation by improper resource utilization and maintenance, Deforestation. |
| Chemistry Daily Test 01 for_Class_12th_Medical | Solid State: General characteristics of solid-state, Amorphous and crystalline solids. Classification of crystalline solids : Molecular, ionic, metallic and covalent solids |
| Chemistry Daily Test 02 for_Class_12th_Medical | Solid State: Crystal lattices and unit cells : Primitive and centered unit cells, Number of atoms in simple cubic, body centered and face centered cubic unit cell |
| Chemistry Daily Test 03 for_Class_12th_Medical | Solid State: Close packed structures in 2D and 3D ccp and hcp arrangements, Formula of a compound and number of voids filled |
| Chemistry Daily Test 04 for_Class_12th_Medical | Solid State: Locating tetrahedral and octahedral voids |
| Chemistry Daily Test 05 for_Class_12th_Medical | Solid State: Packing efficiency in simple cubic, hcp/ccp and bcc lattices |
| Chemistry Daily Test 06 for_Class_12th_Medical | Solid State: Calculation involving unit cell dimensions |
| Chemistry Daily Test 07 for_Class_12th_Medical | Solid State: Structure of Ionic solids |
| Chemistry Daily Test 08 for_Class_12th_Medical | Solid State: Imperfections in solids : Types of point defects electrical and magnetic properties |
| Chemistry Daily Test 09 for_Class_12th_Medical | Solutions-Types of solutions, Expressing concentration of solutions. Solubility of a solid in a liquid and gas in a liquid (Henry-law) |
| Chemistry Daily Test 10 for_Class_12th_Medical | Solutions-Vapour pressure of liquid solutions, Raoult's law for binary solutions. Ideal and non-ideal solutions |

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# AAKASH TEST PLANNER :
# DAILY PRACTICE TEST SCHEDULE & SYLLABUS FOR CLASS-XII

| DPT NAME | SYLLABUS |
|---|---|
| Chemistry Daily Test 11 for_Class_12th_Medical | Solutions-Colligative properties and determination of molar mass : Relative lowering of vapour pressure, Elevation of boiling point, depression of freezing point, Osmosis and osmotic pressure, reverse osmosis |
| Chemistry Daily Test 12 for_Class_12th_Medical | Solutions-Abnormal molar masses and van't Hoff factor |
| Chemistry Daily Test 13 for_Class_12th_Medical | Electrochemistry-Electrochemical cells, Galvanic cells : S.H.E and measurement of electrode potential, Nernst equation |
| Chemistry Daily Test 14 for_Class_12th_Medical | Electrochemistry-Equilibrium constant from Nernst equation, Gibbs free energy and electrochemical cell and Gibb's energy of the reaction |
| Chemistry Daily Test 15 for_Class_12th_Medical | Electrochemistry-Conductance of electrolytic solutions, measurement of the conductivity of ionic solutions |
| Chemistry Daily Test 16 for_Class_12th_Medical | Electrochemistry-Variation of conductivity and molar conductivity with dilution in case of strong electrolyte and weak electrolyte. Kohlrausch law |
| Chemistry Daily Test 17 for_Class_12th_Medical | Electrochemistry-Electrolytic cells and electrolysis : Faraday laws of electrolysis. Products of electrolysis |
| Chemistry Daily Test 18 for_Class_12th_Medical | Electrochemistry-Batteries : Primary and secondary batteries fuel cells. Corrosion |
| Chemistry Daily Test 19 for_Class_12th_Medical | Chemical Kinetics-Rate of a chemical reaction. Factors influencing rate of reactions. Rate expression and rate constant |
| Chemistry Daily Test 20 for_Class_12th_Medical | Chemical Kinetics-Order and molecularity of a reaction, Integrated rate equations for zero and first order reactions. Half-life of a reaction |
| Chemistry Daily Test 21 for_Class_12th_Medical | Chemical Kinetics-Pseudo first order reaction. Temperature dependence of the rate of a reaction |
| Chemistry Daily Test 22 for_Class_12th_Medical | Chemical Kinetics-Effect of catalyst, Collision theory of chemical reactions & Assignments |
| Chemistry Daily Test 23 for_Class_12th_Medical | Surface Chemistry-Adsorption vs Absorption, Mechanism of adsorption, Types of adsorption, Freundlich adsorption isotherm, Adsorption isobar |
| Chemistry Daily Test 24 for_Class_12th_Medical | Surface Chemistry-Homogeneous vs Heterogeneous catalysis, Different classification of colloids and their preparation methods |
| Chemistry Daily Test 25 for_Class_12th_Medical | Mechanical, Electrical and Optical properties of colloids, Emulsions |
| Chemistry Daily Test 26 for_Class_12th_Medical | General Principles and Processes of Isolation of Elements-Occurrence of metals, Concentration of an ore (Physical and Chemical methods), Hydraulic washing, Magnetic separation, Froth floatation process |
| Chemistry Daily Test 27 for_Class_12th_Medical | General Principles and Processes of Isolation of Elements-Leaching, Thermodynamic aspects of Metallurgy (Ellingham diagram), Extractive metallurgy |

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# AAKASH TEST PLANNER :
# DAILY PRACTICE TEST SCHEDULE & SYLLABUS FOR CLASS-XII

| DPT NAME | SYLLABUS |
|---|---|
| Chemistry Daily Test 28 for_Class_12th_Medical | General Principles and Processes of Isolation of Elements-Refining of metals,Extractive metallurgy, uses of Al, Cu, Zn and Fe |
| Chemistry Daily Test 29 for_Class_12th_Medical | p-Block Elements-Group-15 : N2, NH3, Oxides of Nitrogen, HNO3, P-Allotropic forms, PH3, |
| Chemistry Daily Test 30 for_Class_12th_Medical | p-Block Elements-Ozone, Sulphur-Allotropic forms,Phosphorus halides, oxoacids of phosphorus, Group 16: O2, simple oxides, compounds of sulphur |
| Chemistry Daily Test 31 for_Class_12th_Medical | p-Block Elements-Group 17 elements: Compounds of chlorine, oxoacids of halogens, interhalogen compounds.Group-18 : Physical properties of Inert gases, Xenon compounds |
| Chemistry Daily Test 32 for_Class_12th_Medical | d & f-Block Elements-General properties of d-block elements, Preparation and properties and uses of KMnO4 and K2Cr2O7 |
| Chemistry Daily Test 33 for_Class_12th_Medical | d & f-Block Elements-f-Block elements (General characteristic) and Lanthanoids contraction, The actinoids and some application of d and f block elements |
| Chemistry Daily Test 34 for_Class_12th_Medical | Coordination Compounds-Werner's theory of coordination compounds, Definition of some important terms pertaining to coordination compounds, Nomenclature of coordination compounds, Isomerism in coordination compounds |
| Chemistry Daily Test 35 for_Class_12th_Medical | Coordination Compounds-Valence bond theory of complex compounds, Crystal field theory colour of coordination complexes |
| Chemistry Daily Test 36 for_Class_12th_Medical | Coordination Compounds-Bonding in metal carbonyls & organometallics, Stability of coordination compounds, Importance & Application of coordination compounds |
| Chemistry Daily Test 37 for_Class_12th_Medical | Haloalkanes and Haloarenes-Classification of Halogen compounds, Nomenclature of Halogen compounds, Nature of C-X bond and methods of preparation of Haloalkanes & Haloarenes |
| Chemistry Daily Test 38 for_Class_12th_Medical | Haloalkanes and Haloarenes-Physical properties of Haloalkanes, optical activity, Nucleophilic substitution reactions of haloalkanes |
| Chemistry Daily Test 39 for_Class_12th_Medical | Haloalkanes and Haloarenes-Elimination reactions in haloalkanes, Elimination versus substitution, Reactions of R-X with Na |
| Chemistry Daily Test 40 for_Class_12th_Medical | Haloalkanes and Haloarenes-Aromatic nucleophilic substitution, Elimination addition Reaction, Electrophilic substitution of ArX, Polyhalogen compounds |
| Chemistry Daily Test 41 for_Class_12th_Medical | Alcohols, Phenols and Ethers-Common and IUPAC names of alcohols and ethers, Preparation of aliphatic alcohols |
| Chemistry Daily Test 42 for_Class_12th_Medical | Alcohols, Phenols and Ethers-Preparation of aromatic alcohols and Physical properties, Chemical reactions of alcohols, phenols |
| Chemistry Daily Test 43 for_Class_12th_Medical | Alcohols, Phenols and Ethers-Preparation of ethers, Physical properties of ethers, Chemical propereties of ethers, Some commercially important alcohols and ethers |

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# DAILY PRACTICE TEST SCHEDULE & SYLLABUS FOR CLASS-XII

| DPT NAME | SYLLABUS |
|---|---|
| Chemistry Daily Test 44 for_Class_12th_Medical | Aldehydes, Ketones and Carboxylic Acids-Nomenclature of Aldehydes and Ketones. Structure of carbonyl group, Preparation of Aldehydes & Ketones |
| Chemistry Daily Test 45 for_Class_12th_Medical | Aldehydes, Ketones and Carboxylic Acids-Physical properties of aldehydes and ketones. Nucleophilic addition reactions |
| Chemistry Daily Test 46 for_Class_12th_Medical | Aldehydes, Ketones and Carboxylic Acids-Nucleophilic addition reaction followed by elimination, Reduction & oxidation reactions of aldehydes & ketones |
| Chemistry Daily Test 47 for_Class_12th_Medical | Aldehydes, Ketones and Carboxylic Acids-, Halogenation & Reaction with alkalies, Nomenclature of carboxylic acids, Preparation of carboxylic acids, Physical & Chemical properties of Carboxylic acids |
| Chemistry Daily Test 48 for_Class_12th_Medical | Amines-Amines : Structure, Nomenclature and preparation of amines |
| Chemistry Daily Test 49 for_Class_12th_Medical | Amines- Chemical reactions of aliphatic and aromatic amines; Diazonium salts |
| Chemistry Daily Test 50 for_Class_12th_Medical | Biomolecules-Carbohydrates, Amino acids |
| Chemistry Daily Test 51 for_Class_12th_Medical | Polymers-Types of polymerisation, classification and monomers of different polymers |
| Chemistry Daily Test 52 for_Class_12th_Medical | Polymers-Biodegradable polymer and polymers of commercial importance |
| Chemistry Daily Test 53 for_Class_12th_Medical | Chemistry in Everyday Life-Chemistry in Everyday Life |
| Physics Daily Test 01 for_Class_12th_Medical | Electric Charges & Field:-Introduction, Electric charges, Conductors and insulators |
| Physics Daily Test 02 for_Class_12th_Medical | Electric Charges & Field:-Charging by induction, Basic properties of electric charges |
| Physics Daily Test 03 for_Class_12th_Medical | Electric Charges & Field:-Coulomb's law, Force between multiple charges |
| Physics Daily Test 04 for_Class_12th_Medical | Electric Charges & Field:-Electric Field, Electric field due to system of charges |
| Physics Daily Test 05 for_Class_12th_Medical | Electric Charges & Field:-Electric field lines, Electric Dipole |
| Physics Daily Test 06 for_Class_12th_Medical | Electric Charges & Field:-Dipole in a uniform external field, Electric flux |
| Physics Daily Test 07 for_Class_12th_Medical | Electric Charges & Field:-Continuous charge distribution |
| Physics Daily Test 08 for_Class_12th_Medical | Electric Charges & Field:-Gauss's Law, Application of Gauss's law |
| Physics Daily Test 09 for_Class_12th_Medical | Electrostatic Potential and Capacitance:-Introduction, electrostatic potential, potential due to a point charge |
| Physics Daily Test 10 for_Class_12th_Medical | Electrostatic Potential and Capacitance:-potential due to Different charge system |
| Physics Daily Test 11 for_Class_12th_Medical | Electrostatic Potential and Capacitance:-potential due to a system of charges |
| Physics Daily Test 12 for_Class_12th_Medical | Electrostatic Potential and Capacitance:-Equipotential surfaces |
| Physics Daily Test 13 for_Class_12th_Medical | Electrostatic Potential and Capacitance:-Potential energy of a system of charges, Potential energy in an external field |
| Physics Daily Test 14 for_Class_12th_Medical | Electrostatic Potential and Capacitance:-Electrostatics of conductors, dielectrics and polarization |

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| DPT NAME | SYLLABUS |
|---|---|
| Physics Daily Test 15 for_Class_12th_Medical | Electrostatic Potential and Capacitance:-Capacitors and capacitance, The parallel plate capacitor |
| Physics Daily Test 16 for_Class_12th_Medical | Electrostatic Potential and Capacitance:-Effect of dielectrics on capacitance |
| Physics Daily Test 17 for_Class_12th_Medical | Electrostatic Potential and Capacitance:-Combination of capacitors |
| Physics Daily Test 18 for_Class_12th_Medical | Electrostatic Potential and Capacitance:- Energy stored in a capacitor, Van de Graff Generator. |
| Physics Daily Test 19 for_Class_12th_Medical | Current Electricity:-Introduction, Electric current, Electric currents in conductors. Ohm's law, Drift of electrons and the origin of resistivity |
| Physics Daily Test 20 for_Class_12th_Medical | Current Electricity:-Limitations of Ohm's law, Resistivity of various material, Temperature dependence of resistivity, Electrical energy power |
| Physics Daily Test 21 for_Class_12th_Medical | Current Electricity:-Combination of resistors, series and parallel |
| Physics Daily Test 22 for_Class_12th_Medical | Current Electricity:-Cells, emf. Internal resistance, cells in series and in parallel |
| Physics Daily Test 23 for_Class_12th_Medical | Current Electricity:-Kirchhoff's laws and its application |
| Physics Daily Test 24 for_Class_12th_Medical | Current Electricity:-Wheatstone bridge,Meter Bridge |
| Physics Daily Test 25 for_Class_12th_Medical | Current Electricity:-Potentiometer. |
| Physics Daily Test 26 for_Class_12th_Medical | Moving Charges and Magnetism:-Introduction, Magnetic force |
| Physics Daily Test 27 for_Class_12th_Medical | Moving Charges and Magnetism:-Motion in a magnetic field, Motion in combined Electric and Magnetic fields |
| Physics Daily Test 28 for_Class_12th_Medical | Moving Charges and Magnetism:-Biot-savart's law, Magnetic field on the axis of a circular current loop |
| Physics Daily Test 29 for_Class_12th_Medical | Moving Charges and Magnetism:-Cyclotron, Magnetic field due to a current element |
| Physics Daily Test 30 for_Class_12th_Medical | Moving Charges and Magnetism:-Ampere' Circuital Law, The solenoid and the toroid ,Force between two parallel currents, the ampere |
| Physics Daily Test 31 for_Class_12th_Medical | Moving Charges and Magnetism:-Torque on current loop, Magnetic dipole, Moving coil Galvanometer. |
| Physics Daily Test 32 for_Class_12th_Medical | Magnetism and Matter:-Introduction, The bar magnet, Magnetism and Gauss's Law |
| Physics Daily Test 33 for_Class_12th_Medical | Magnetism and Matter:-The Earth's magnetism |
| Physics Daily Test 34 for_Class_12th_Medical | Magnetism and Matter:-Tangent Law and its applications |
| Physics Daily Test 35 for_Class_12th_Medical | Magnetism and Matter:-Magnetization and magnetic intensity, Magnetic properties of materials,Permanent magnets and electromagnets |
| Physics Daily Test 36 for_Class_12th_Medical | Electromagnetic induction:-Introduction, the experiments of Faraday and Henry, Magnetic Flux, Faraday's laws of induction, Lenz's law and conservation of energy, Motional electromotive force |

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| DPT NAME | SYLLABUS |
|---|---|
| Physics Daily Test 37 for_Class_12th_Medical | Electromagnetic induction:-Energy consideration, A quantitative study Eddy currents, Electromagnetic induction:-Inductance, |
| Physics Daily Test 38 for_Class_12th_Medical | Alternating Current:-Introduction AC voltage applied to a resistor representation of AC current and voltage by rotating vectors -phasors, AC voltage applied to an inductor, AC voltage applied to a capacitor |
| Physics Daily Test 39 for_Class_12th_Medical | Alternating Current:-AC voltage applied to a series LCR circuit, Power in AC circuit, The power factor, LC Oscillations, transformers. |
| Physics Daily Test 40 for_Class_12th_Medical | Electromagnetic Waves:-Introduction, Displacement currents, Electromagnetic waves, Electromagnetic spectrum, |
| Physics Daily Test 41 for_Class_12th_Medical | Ray Optics & Optical Instruments:- Introduction, Reflection of light spherical mirrors, Refraction |
| Physics Daily Test 42 for_Class_12th_Medical | Ray Optics & Optical Instruments:-Total internal reflection, Refraction at spherical surface, Refraction through lenses |
| Physics Daily Test 43 for_Class_12th_Medical | Ray Optics & Optical Instruments:-Refraction through a prism, Dispersion by prism, some natural phenomena due to sunlight, Optical instruments – The eye, microscope |
| Physics Daily Test 44 for_Class_12th_Medical | Ray Optics & Optical Instruments:- Optical instruments – Telescope, microscope |
| Physics Daily Test 45 for_Class_12th_Medical | Wave Optics:-Introduction, Huygens Principle, Refraction and Reflection of plane waves using Huygens principle, Coherent and incoherent addition of waves, Interference of light waves |
| Physics Daily Test 46 for_Class_12th_Medical | Wave Optics:- Young's experiment, Diffraction, Polarization. |
| Physics Daily Test 47 for_Class_12th_Medical | Dual Nature of Radiation and Matter:-Introduction, electron emission, photoelectric effect, experimental study of photoelectric effect, photoelectric effect and wave theory of light Einstein's photoelectric equation, energy quantum of radiation, particle nature of light the photons |
| Physics Daily Test 48 for_Class_12th_Medical | Dual Nature of Radiation and Matter:-Wave nature of matter, Davisson and Germer Experiment. |
| Physics Daily Test 49 for_Class_12th_Medical | Atoms:-Introduction, alpha particle scattering and Rutherford's nuclear model of atom, Atomic spectra, Bohr model of the hydrogen atom, the line spectra of the hydrogen atom, de Broglie's explanation of Bohr's second postulate quantization |
| Physics Daily Test 50 for_Class_12th_Medical | Nuclei:-Introduction, Atomic masses and composition of nucleus, size of the nucleus, Mass energy and nuclear binding energy, Nuclear force, Radioactivity, Nuclear energy. |

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| DPT NAME | SYLLABUS |
|---|---|
| Physics Daily Test 51 for_Class_12th_Medical | Semiconductor:-Introduction, Classification of metals conductors and semiconductors, Intrinsic semiconductor, Extrinsic semiconductors P – N, semiconductor diode, Application of junction diode as a rectifier special purpose P–N junction diodes |
| Zoology Daily Test 01 for_Class_12th_Medical | Reproduction in Organisms:-Average & maximum life span, Life expectancy, population growth, Types of Reproduction–Asexual reproduction: Fission (binary & multiple), Budding (internal & external), Fragmentation Regeneration. |
| Zoology Daily Test 02 for_Class_12th_Medical | Reproduction in Organisms:-Sexual reproduction: Outline of reproductive system of cockroach and earthworm; Prefertilization events (Gametogenesis, oestrous cycle), Syngamy. |
| Zoology Daily Test 03 for_Class_12th_Medical | Reproduction in Organisms:-Post fertilization events: Embryogenesis, oviparous and viviparous animals; Parthenogenesis. |
| Zoology Daily Test 04 for_Class_12th_Medical | Human Reproduction:-Sex organs, Male reproductive system: Testes, Epididymis, Vas deferens, Penis, Accessory glands of male reproductive system, Seminal plasma and semen |
| Zoology Daily Test 05 for_Class_12th_Medical | Human Reproduction:-Structure of female reproductive system, Fallopian tubes, uterus, Vagina, Female External genitalia and Accessory genital glands |
| Zoology Daily Test 06 for_Class_12th_Medical | Human Reproduction:-Structure of Mammary glands, Spermatogenesis and its hormonal control, Structure of mature sperm |
| Zoology Daily Test 07 for_Class_12th_Medical | Human Reproduction:- Oogenesis and structure of ovum & ovary |
| Zoology Daily Test 08 for_Class_12th_Medical | Human Reproduction:-Menstrual cycle: Various events and its hormonal control |
| Zoology Daily Test 09 for_Class_12th_Medical | Human Reproduction:-Capacitation and acrosomal reactions, Fertilisation fast block and slow block to prevent polyspermy, Embryonic development cleavage, morula, blastula and implantation |
| Zoology Daily Test 10 for_Class_12th_Medical | Human Reproduction:-Gastrulation, fate of three germinal layers, Pregnancy and embryonic development |
| Zoology Daily Test 11 for_Class_12th_Medical | Human Reproduction:-Major features, function and types of placenta |
| Zoology Daily Test 12 for_Class_12th_Medical | Human Reproduction:-Parturition and lactation |
| Zoology Daily Test 13 for_Class_12th_Medical | Reproductive Health:-Reproductive Health, Problems & Strategies, Population explosion, Human population growth |
| Zoology Daily Test 14 for_Class_12th_Medical | Reproductive Health:-Methods of Birth control, Medical termination of pregnancy (MTP) |
| Zoology Daily Test 15 for_Class_12th_Medical | Reproductive Health:-STD (Venereal Diseases), Infertility, ART (Assisted reproductive technology) |
| Zoology Daily Test 16 for_Class_12th_Medical | Evolution: Theories & Evidences:-Origin of universe (Big bang theory) Solar system, Theories of origin of life: Panspermia theory, Abiogenesis theory, Theory of biogenesis |

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| DPT NAME | SYLLABUS |
|---|---|
| Zoology Daily Test 17 for_Class_12th_Medical | Evolution: Theories & Evidences:-Chemical origin of life, Stanley Miller's experiment, Prebiotic system coacervate and microsphere, Geological time scale |
| Zoology Daily Test 18 for_Class_12th_Medical | Evolution: Theories & Evidences:-Evidences of evolution – Palaentological, evolution of horse |
| Zoology Daily Test 19 for_Class_12th_Medical | Evolution: Theories & Evidences:-Morphological and anatomical evidences of evolution-Homologous, analogous, Vestigeal organs |
| Zoology Daily Test 20 for_Class_12th_Medical | Evolution: Theories & Evidences:-Evidences from: Connecting links, Embryological evidences, Biogeographical evidences, Adaptive radiation |
| Zoology Daily Test 21 for_Class_12th_Medical | Evolution: Theories & Evidences:-Lamarck's theory, Darwin's theory–Darwin novelty |
| Zoology Daily Test 22 for_Class_12th_Medical | Evolution: Theories & Evidences:-Mutation theory, Hardy Weinberg principle: Gene flow, Gene migration, Genetic drift, Mutation, genetic Recombination, Natural selection |
| Zoology Daily Test 23 for_Class_12th_Medical | Evolution: Theories & Evidences:-Speciation: Allo patric and sympatru, Brief account of evolution: Evolution of plant forms, Evolutionary history of vertebrates through geological period |
| Zoology Daily Test 24 for_Class_12th_Medical | Evolution: Theories & Evidences:-Human evolution, Prior to Ape man, Ape man to prehistoric man, Prehistoric to modern man |
| Zoology Daily Test 25 for_Class_12th_Medical | Human Health & Disease:-Health–Various types of diseases in Human–Bacterial, Viral |
| Zoology Daily Test 26 for_Class_12th_Medical | Human Health & Disease:-Fungal: Ringworms, Helminthic: Ascariasis, Elephantiasis |
| Zoology Daily Test 27 for_Class_12th_Medical | Human Health & Disease:-Protozoan: Life cycle of Plasmodium vivax and Entamoeba histolytica |
| Zoology Daily Test 28 for_Class_12th_Medical | Human Health & Disease:-Types of Immunity–Innate and acquired, Humoral mediated Immunity |
| Zoology Daily Test 29 for_Class_12th_Medical | Human Health & Disease:-Cell Mediated Immunity, Active & Passive Immunity, Vaccination and Immunisation |
| Zoology Daily Test 30 for_Class_12th_Medical | Human Health & Disease:-Allergies, Auto immunity, Immune system of the body, Lymphoid organs: Primary and Secondary |
| Zoology Daily Test 31 for_Class_12th_Medical | Human Health & Disease:-AIDS–Cause, Detection, Symptoms, Prevention |
| Zoology Daily Test 32 for_Class_12th_Medical | Human Health & Disease:-Cancer–Causes, detection & diagnosis, Treatment |
| Zoology Daily Test 33 for_Class_12th_Medical | Human Health & Disease:-Alcohol and Tobacco Opioids, Cannabinoids, Sedatives, Hallucinogens, Stimulants, Primary and Secondary |
| Zoology Daily Test 34 for_Class_12th_Medical | Human Health & Disease:-Adolescence, Addiction & dependence, Effects of drugs & alcohol abuse, Prevention & control |

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## AAKASH TEST PLANNER :
## DAILY PRACTICE TEST SCHEDULE & SYLLABUS FOR CLASS-XII

| DPT NAME | SYLLABUS |
|---|---|
| Zoology Daily Test 35 for_Class_12th_Medical | Animal Husbandry:-Dairy farm management, Poultry farm management, Indigenous & exotic breeds, Bacterial, Viral & Fungal disease |
| Zoology Daily Test 36 for_Class_12th_Medical | Animal Husbandry:-Live stocks, Animal Breeding, Inbreeding, Outbreeding, Out crossing, Cross breeding, Interspecific hybridisation, MOET, Artificial Insemination |
| Zoology Daily Test 37 for_Class_12th_Medical | Animal Husbandry:-Bee keeping, Sericulture, Aqua culture (Fisheries) |
| Zoology Daily Test 38 for_Class_12th_Medical | Biotechnology-Principles and Processes:-Biotechnology-Principles, Tools of recombinant DNA technology |
| Zoology Daily Test 39 for_Class_12th_Medical | Biotechnology-Principles and Processes:-Separation and Isolation of DNA fragments Cloning vectors, Competent host |
| Zoology Daily Test 40 for_Class_12th_Medical | Biotechnology-Principles and Processes:- Processes of recombinant DNA technology |
| Zoology Daily Test 41 for_Class_12th_Medical | Biotechnology and its Applications:-Biotechnological applications in agriculture–Bt cotton, Pest resistant plants |
| Zoology Daily Test 42 for_Class_12th_Medical | Biotechnology and its Applications:-Biotechnological applications in medicine–Genetically engineered insulin, Gene Therapy, Molecular Diagnosis |
| Zoology Daily Test 43 for_Class_12th_Medical | Biotechnology and its Applications:-Transgenic Animals, Ethical Issues, Biopiracy |
| Zoology Daily Test 44 for_Class_12th_Medical | Revision Test |

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**AAKASH TEST PLANNER :**
**FORTNIGHTLY & TERM EXAM FOR CLASS-XI & XII (MEDICAL)**

# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 1 | XI | FT-01 | 8-May-20 | **Physics : Physical World, Units & Measurements:** Introduction, International system of units, Measurement of length, Mass, Time, Accuracy, Precision of instruments.<br>**Chemistry : Some Basic Concepts of Chemistry:** Importance of chemistry, Nature of matter, Properties of matter and their measurement : Mass and weight, volume, density, temperature, Uncertainty in measurement, Scientific notation, Addition and subtraction, Multiplication and division, Significant figures, Dimensional analysis., Laws of chemical combination : Law of conservation of mass, Law of definite proportions, Law of multiple proportions, Gay lussac's law of gaseous volumes, Avogadro law, Dalton's atomic theory., Atomic and molecular masses : Atomic mass, Average atomic mass, Molecular mass, Formula mass.<br>**Botany : 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 wall, endomembrane system– Endoplasmic reticulum, Golgi body, Lysosome, Vacuole; Mitochondria, Plastid.<br>**Zoology : Structural organisation in Animals–Animal Tissues-I: Epithelial Tissue:** General features, basement membrane, Types of epithelial tissues-Simple., Compound epithelium, specialized epithelial tissues, glandular epithelium, Types of simple & compound glands, **Connective Tissue:** Connective tissue proper, Loose connective tissue, Dense connective tissues-characters with examples. Supportive connective tissue: Cartilage, Types of cartilage-Hyaline, Elastic, white fibrocartilage & Calcified **cartilage,** Supportive Connective Tissue: **Bone,** its structure & composition, Types of bones: Compact bone, Spongy bone, Differences between cartilage & bone: Dried bone & decalcified bone. Cartilage, Investing bone, Sesamoid bone and Visceral bone |
| 2 | XII | FT-01 | 8-May-20 | **Physics : Electric Charges & Field:** Introduction, Electric charges, Conductors and insulators, Charging by induction, Basic properties of electric charges, Coulomb's law, Force between multiple charges, Electric Field, Electric field due to system of charges.<br>**Chemistry : Solid State:** General characteristics of solid-state, Amorphous and crystalline solids. Classification of crystalline solids : Molecular, ionic, metallic and covalent solids, Crystal lattices and unit cells : Primitive and centered unit cells, Number of atoms in simple cubic, body centered and face centered cubic unit cell, Close packed structures in 2D and 3D ccp and hcp arrangements, Formula of a compound and number of voids filled, Locating tetrahedral and octahedral voids,<br>**Botany : Reproduction in Organisms :** Life span, Basic features of reproduction, Asexual reproduction-Features, Methods (Binary fission, Budding, Sporulation), Vegetative propagation - Natural and artificial (cutting), Artificial (Layering & grafting), Sexual reproduction - Features, Phases of life cycle Events i.e. Pre-fertilization, Fertilization and Post-fertilization.<br>**Zoology : Reproduction in Organisms, Human Reproduction-I :** Sex organs, Male reproductive system: Testes, epididymis, Vas deferens, penis, accessory glands of male reproductive system, seminal plasma and semen. |

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**AAKASH TEST PLANNER :**
**FORTNIGHTLY & TERM EXAM FOR CLASS-XI & XII (MEDICAL)**

# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 3 | XI | FT-02 | 22-May-20 | **Physics : Units & Measurements:** Errors in measurements, Significant figures, Dimensions of physical quantities, Dimensional formulae & dimensional equations, Dimensional analysis and its applications.<br>**Chemistry : Some Basic Concepts of Chemistry:** Mole concept, Molar mass, equivalent mass, Percentage composition, Empirical formula, Stoichiometry and Stoichiometric calculations., Calculations regarding limiting reagents.<br>**Botany : Cell: The Unit of Life (Contd.):** Ribosome, Cytoskeleton, Centrosome and centrioles, Cilia and flagella, Nucleus, Chromosomes, Microbodies, **Cell Cycle & Cell Division:** Introduction, Cell cycle–phases of cell cycle, Mitosis–definition, Karyokinesis, cytokinesis, significance, Meiosis–definition<br>**Zoology : Structural organisation in Animals–Animal Tissues-II: Muscular Tissue:** Types of Muscles: Striated and non-striated/Smooth muscles (Single unit & Multiunit smooth muscles; Cardiac muscle), **Nervous Tissue:** Structure of neuron and its parts, Different types of neuron; Myelinated & Nonmyelinated neurons, Neuroglia cells-Types of glial cells, **Biomolecules-I:** Primary and secondary metabolites, Carbohydrates, Monosaccharides, Triose, Pentose, Hexose, Heptose, Derivatives of monosaccharides, Oligosaccharides, Functions of small carbohydrates, Polysaccharides-homopolysaccharides & heteropolysaccharides, storage & structural polysaccharides |
| 4 | XII | FT-02 | 22-May-20 | **Physics : Electric Charges & Field:** Electric field lines, Electric Dipole, Dipole in a uniform external field, Electric flux, Continuous charge distribution, Gauss's Law, Application of Gauss's law.<br>**Chemistry : Solid State:** Packing efficiency in simple cubic, hcp/ccp and bcc lattices,Calculation involving unit cell dimensions,Structure of Ionic solids,Imperfections in solids : Types of point defects, electrical and magnetic properties<br>**Botany : Sexual Reproduction in Flowering Plants :** Introduction, Flower - A fascinating organ of angiosperms, Pre-fertilization - structures and events - Stamen, Microsporangium, Microsporogenesis. Pollen grain, Development of male gametophyte, The pistil, Megasporangium (ovule), Types of ovules, Megasporogenesis, Embryo sac/Female gametophyte development, Pollination : Objective, Kinds - Autogamy, Geitonogamy, Xenogamy, Agents of pollination - Wind, Water, Insects<br>**Zoology : Human Reproduction-II:** Structure of female reproductive system, fallopian tubes, uterus, vagina, female external genitalia and accessory gland of female reproductive system, Structure of mammary glands, spermatogenesis and its hormonal control, structure of mature sperm, Oogenesis and structure of ovum & ovary, Menstrual cycle: Various events and its hormonal control. |

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**AAKASH TEST PLANNER :**
**FORTNIGHTLY & TERM EXAM FOR CLASS-XI & XII (MEDICAL)**

# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 5 | XI | FT-03 | 5-Jun-20 | **Physics : Motion in a Straight Line:** Introduction, Position, Path length and displacement, Average velocity & average speed., Differential calculus, Applications of differential calculus, Instantaneous velocity & speed, Acceleration<br>**Chemistry : Some Basic Concepts of Chemistry:** Reactions in solutions : Mass percentage or weight percentage, Mole-fraction, Molarity, Molality, Normality, **Structure of Atom:** Sub-atomic particles : Discovery of electron, Charge to mass ratio of electron, Charge on electron, Discovery of proton and neutron. Thomson model of atom, Rutherford's nuclear model of atom, Atomic and Mass number, Isobars and isotopes., Particle nature of electromagnetic radiation : Plank's quantum theory, Photoelectric effect, Dual behaviour of electromagnetic radiation.<br>**Botany : Cell Cycle & Cell Division (Contd.):** Meiosis-I, Meiosis-II, significance of meiosis, **The living world:** Introduction, What is living?, Characteristics of living beings, Diversity in the living world, Nomenclature, Need for classification, Classification -taxonomy, Systematics, Taxonomic categories.<br>**Zoology : Biomolecules-II:** Aminoacids: Structure, types, Polar, Non polar, acidic, basic, neutral, alcoholic, aromatic, heterocyclic, functions of amino acids. Peptide bond formation, Structure of protein-Primary, secondary, tertiary, quaternary, Properties of proteins. Types of proteins and their functions, Lipids: Structure and classification of lipids, simple lipids, conjugated lipids, derived lipids, functions of lipids, Nitrogenous bases, nucleosides, nucleotides, higher nucleotides, types of nucleotides, functions of nucleotides, Nucleic acid-DNA, RNA structure, types of it and function, Metabolites-Primary & secondary, Enzymes: Importance, activation energy, chemical nature, active site, Classes of enzymes: Oxidoreductase, Transferase, Hydrolase, Lyase, Isomerase, Ligase; Properties of enzymes, Working of enzymes-Lock & Key model, Induce fit theory, Enzymes: Factors affecting the enzyme activity: substrate concentration, $K_m$ value, Product concentration, Temperature, pH; Enzyme inhibition-competitive, Non competitive, Allosteric enzymes, Isoenzymes and proenzymes |
| 6 | XII | FT-03 | 5-Jun-20 | **Physics : Electrostatic Potential and Capacitance:** Introduction, electrostatic potential, potential due to a point charge, potential due to an electric dipole, potential due to a system of charges, Equipotential surfaces, Calculating field from potential, Potential energy of a system of charges, Potential energy in an external field<br>**Chemistry : Solutions**<br>**Botany : Sexual Reproduction in Flowering Plants [Contd.]** : Outbreeding devices, Pollen-pistil interaction, Double fertilization, Post-fertilization, structures and events - Endosperm, Embryo development, Post fertilization, structure and events - Seed, Fruit; Apomixis and Polyembryony.<br>**Zoology : Human Reproduction-III :** Capacitation and acrosomal reactions, fertilisation, fast block and slow block to prevent polyspermy, embryonic development : cleavage, morula, blastula and implantation, Gastrulation, fate of three germinal layers, pregnancy and embryonic development, Major features, function and types of placenta, Parturition and lactation. |
| 7 | XI | TE-01 | 12-Jun-20 | **Physics : Physical World, Units & Measurements, Motion in a Straight Line:** Introduction, Position, Path length and displacement, Average velocity & average speed., Differential calculus, Applications of differential calculus, Instantaneous velocity & speed, Acceleration<br>**Chemistry : Some Basic Concepts of Chemistry, Structure of Atom:** Sub-atomic particles : Discovery of electron, Charge to mass ratio of electron, Charge on electron, Discovery of proton and neutron. Thomson model of atom, Rutherford's nuclear model of atom, Atomic and Mass number, Isobars and isotopes., Particle nature of electromagnetic radiation : Plank's quantum theory, Photoelectric effect, Dual behaviour of electromagnetic radiation.<br>**Botany : Cell: The Unit of Life, Cell Cycle & Cell Division, The living world (**Upto Taxonomic categories)<br>**Zoology : Structural organisation in Animals–Animal Tissues, Biomolecules** |

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**AAKASH TEST PLANNER :**
**FORTNIGHTLY & TERM EXAM FOR CLASS-XI & XII (MEDICAL)**

# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 8 | XII | TE-01 | 19-Jun-20 | **Physics : Electric Charges & Field, Electrostatic Potential and Capacitance:** Introduction, electrostatic potential, potential due to a point charge, potential due to an electric dipole, potential due to a system of charges, Equipotential surfaces, Calculating field from potential, Potential energy of a system of charges, Potential energy in an external field<br>**Chemistry : Solid State, Solutions**<br>**Botany : Reproduction in Organisms, Sexual Reproduction in Flowering Plants**<br>**Zoology : Reproduction in Organisms, Human Reproduction** |
| 9 | XI | FT-04 | 26-Jun-20 | **Physics : Motion in a Straight Line:** Integral calculus, Applications of Integral calculus, Graphs (slope, area etc.), Kinematic equations for uniformly accelerated motion., Motion under gravity, Relative velocity in one dimension.<br>**Chemistry : Structure of Atom:** Emission and absorption spectra, Line spectrum of hydrogen, Bohr's model for hydrogen atom, Explanation of Bohr's model., Dual behaviour of matter, Heisenberg's uncertainty principle, Significance of uncertainty principle, Reason for the failure of the Bohr model., Quantum mechanics, Hydrogen atom and the Schrodinger equation, Orbitals and Quantum numbers, Shapes of atomic orbitals, Energies of atomic orbitals, Filling of orbitals in atom : Aufbau principle, Pauli's exclusion principle, Hunds rule of maximum multiplicity, Electronic configuration of atoms, Causes of Stability of completely filled and half filled sub-shells<br>**Botany : The living world(Contd.):** Biological concept of species, Taxonomical aids- Herbarium, , Botanical gardens, museum, zoological parks, Key, Flora, Manual, Monographs, Catalogues, **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, Reproduction- Asexual, Sexual recombination<br>**Zoology : Digestion & Absorption** |
| 10 | XII | FT-04 | 3-Jul-20 | **Physics : Electrostatic Potential and Capacitance:** Electrostatics of conductors, dielectrics and polarization, Capacitors and capacitance, The parallel plate capacitor, Effect of dielectrics on capacitance, Combination of capacitors, Energy stored in a capacitor, Van de Graaff Generator.<br>**Chemistry : Electrochemistry**<br>**Botany : Principles of Inheritance & Variation:** Introduction, Mendel's law of inheritance, inheritance of one gene. Laws of inheritance dominance segregation, explanation of the concept of dominance. Incomplete dominance, co-dominance, multiple alleles, Pleiotropy, Inheritance of two genes, Law of independent assortment<br>**Zoology : Reproductive Health, Evolution:** Theories & Evidences: Origin of universe (Big Bang theory) solar system, theories of origin of life: panspermia theory, abiogenesis theory, theory of biogenesis |

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**AAKASH TEST PLANNER :**
**FORTNIGHTLY & TERM EXAM FOR CLASS-XI & XII (MEDICAL)**

# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 11 | XI | FT-05 | 10-Jul-20 | **Physics : Motion in a Plane:** Introduction, Scalars & Vectors, Multiplication of vectors by real numbers, Addition & subtraction of vectors–graphical method., Resolution of vectors, Vector addition–analytical method., Motion in a plane, Motion in a plane with constant acceleration.<br>**Chemistry : Classification of Elements and Periodicity in Properties, Chemical Bonding and Molecular Structure:** Kossel-Lewis approach to chemical bonding, Octet rule, Covalent bond, Lewis representation of simple molecules, Formal charge, Limitations of octet rule : Incomplete octet of the central atom, odd-electron molecule, The expanded octet., Ionic or electrovalent bond, Lattice enthalpy, bond parameters : Bond length, Bond angles, Bond enthalpy, Bond-order, Resonance structures<br>**Botany : Biological Classification(Contd.):** Economic importance of bacteria, Archaebacteria-methanogens, halophiles, thermoacidophiles, Eubacteria – Cyanobacteria, *Mycoplasma,* Actinomycetes, Protista-General characters, Chrysophytes, Dinoflagellates, Euglenoids, Slime moulds, Protozoans-major groups with some salient features, Fungi-general characters.<br>**Zoology : Breathing & Exchange of Gases-I:** Respiratory passage, structure of Larynx, sound production, lungs, pleurae, external structure of lungs, Internal structure, alveoli., Mechanism of breathing-Inspiration, expiration, thoracic & abdominal breathing, Respiratory/Pulmonary volumes/Respiratory capacities, Exchange of gases between alveoli & blood; exchange of gases between blood & tissue cells., Transport of oxygen, Bohr's effect; Transport of carbon dioxide, Chloride shift (Hamburger's phenomenon), Haldane effect |
| 12 | XII | FT-05 | 17-Jul-20 | **Physics : Current Electricity:** Introduction, Electric current, Electric currents in conductors. Ohm's law, Drift of electrons and the origin of resistivity, Limitations of Ohm's law, Resistivity of various material, Temperature dependence of resistivity, Electrical energy power, Combination of resistors, series and parallel, Cells, emf. Internal resistance, cells in series and in parallel, Kirchhoff's laws and its application<br>**Chemistry : Chemical Kinetics**<br>**Botany : Principles of Inheritance & Variation:** Complementary genes, Duplicate genes, Epistasis, Polygenic inheritance, Chromosomal theory of inheritance, Linkage and recombination, Sex determination, Mutations - Gene mutation<br>**Zoology : Evolution: Theories & Evidences:** Chemical origin of life, Stanley Miller's experiment, prebiotic system coacervate and microsphere<br>Geological time scale, evidences of evolution–Palaentological, timeline of evolution, evolution of horse, Morphological and anatomical evidences of evolution-Homologous, analogous, vestigeal organs, Evidences from connecting links, embryological evidences, biogeographical evidences, adaptive radiation |

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**AAKASH TEST PLANNER :**
**FORTNIGHTLY & TERM EXAM FOR CLASS-XI & XII (MEDICAL)**

# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 13 | XI | FT-06 | 24-Jul-20 | **Physics : Motion in a Plane(Contd.):** Relative velocity in two dimensions., Projectile motion – Equation of path of a projectile. Time of flight, Maximum height, Horizontal range, Uniform circular motion.<br>**Chemistry : Chemical Bonding and Molecular Structure:** Polarity of bonds, Dipole moment and molecular structures, Percentage ionic character, The valence shell electron pair repulsion theory., Valence bond theory : Orbital overlap concept, Directional properties of bonds, Overlapping of atomic orbitals, Types of overlapping and nature of covalent bonds. Strength of $\sigma$ & $\pi$-bonds., Hybridisation : Features and conditions, Types of hybridisation : $sp$ , $sp^2$, $sp^3$, $dsp^2$, $sp^3d$ , $sp^3d^2$, $sp^3d^3$, Molecular orbital theory : Features, Linear combination of atomic orbitals, Conditions for the combination of atomic orbitals, Types of molecular orbitals., Energy level diagram for molecular orbitals, Electronic configuration and molecular behaviour, Bonding in some homonuclear diatomic molecules, Hydrogen bonding.,<br>**Botany : Biological Classification(Contd.):** Reproduction in fungi, Characters of different classes of fungi - Phycomycetes, Ascomycetes, Basidiomycetes, Salient features of *Agaricus* & *Puccinia* , Deuteromycetes, Virus–introduction, discovery, structural components, Structure of some viruses (TMV, bacteriophages),<br>**Zoology : Breathing & Exchange of Gases-II:** Regulation of respiration: Neural regulation, chemical regulation, Respiratory disorders, Bronchitis, Asthma, Emphysema, Occupational respiratory disorder, **Body Fluids & Circulation-I:** Fluid connective tissue–Blood & composition of blood-blood cells & plasma, blood coagulation, clotting factors, lymph, Circulatory pathways, Human circulatory system-external structure of heart, Internal structure-Atria, Ventricle, Valves, Histology of heart wall, working of heart, Cardiac cycle, Heart sounds, conducting system of heart, ECG-Normal ECG & changes as indication of heart diseases |

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**AAKASH TEST PLANNER :**
**FORTNIGHTLY & TERM EXAM FOR CLASS-XI & XII (MEDICAL)**

# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 14 | XI | TE-02 | 31-Jul-20 | **Physics : Physical World, Units & Measurements, Motion in a Straight Line:** Introduction, Position, Path length and displacement, Average velocity & average speed., Differential calculus, Applications of differential calculus, Instantaneous velocity & speed, Acceleration<br>*[For 9 Questions out of 45]*<br>**Motion in a Straight Line:** Integral calculus, Applications of Integral calculus. Graphs (slope, area etc.), Kinematic equations for uniformly accelerated motion., Motion under gravity, Relative velocity in one dimension, **Motion in a Plane**<br>*[For 36 Questions out of 45]*<br>**Chemistry : Some Basic Concepts of Chemistry, Structure of Atom: Sub-atomic particles :** Discovery of electron, Charge to mass ratio of electron, Charge on electron, Discovery of proton and neutron. Thomson model of atom, Rutherford's nuclear model of atom, Atomic and Mass number, Isobars and isotopes., Particle nature of electromagnetic radiation : Plank's quantum theory, Photoelectric effect, Dual behaviour of electromagnetic radiation.<br>*[For 9 Questions out of 45]*<br>**Structure of Atom:** Emission and absorption spectra, Line spectrum of hydrogen, Bohr's model for hydrogen atom, Explanation of Bohr's model., Dual behaviour of matter, Heisenberg's uncertainty principle, Significance of uncertainty principle, Reason for the failure of the Bohr model., Quantum mechanics, Hydrogen atom and the Schrodinger equation, Orbitals and Quantum numbers, Shapes of atomic orbitals, Energies of atomic orbitals, Filling of orbitals in atom : Aufbau principle, Pauli's exclusion principle, Hunds rule of maximum multiplicity, Electronic configuration of atoms, Causes of stability of completely filled and half filled sub-shells., **Classification of Elements and Periodicity in Properties, Chemical Bonding and Molecular Structure.**<br>*[For 36 Questions out of 45]*<br>**Botany : Cell: The Unit of Life, Cell Cycle & Cell Division, The living world** (Upto Taxonomic categories)<br>*[For 9 Questions out of 45]*<br>**The living world:** Biological concept of species onwards, **Biological Classification:** Upto Structure of some viruses (TMV, bacteriophages)<br>*[For 36 Questions out of 45]*<br>**Zoology : Structural organisation in Animals–Animal Tissues, Biomolecules**<br>*[For 9 Questions out of 45]*<br>**Digestion & Absorption, Breathing & Exchange of Gases, Body Fluids & Circulation-I:** Fluid connective tissue–Blood & composition of blood-blood cells & plasma, blood coagulation, clotting factors, lymph, Circulatory pathways, Human circulatory system-external structure of heart, Internal structure-Atria, Ventricle, Valves, Histology of heart wall, working of heart, Cardiac cycle, Heart sounds, conducting system of heart, ECG-Normal ECG & changes as indication of heart diseases.<br>*[For 36 Questions out of 45]* |

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**AAKASH TEST PLANNER :**
**FORTNIGHTLY & TERM EXAM FOR CLASS-XI & XII (MEDICAL)**

# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 15 | XII | FT-06 | 31-Jul-20 | **Physics : Current Electricity:** Wheatstone bridge,Meter Bridge, Potentiometer, **Moving Charges and Magnetism:** Introduction, Magnetic force, Motion in a magnetic field, Motion in combined Electric and Magnetic fields.<br>**Chemistry : Surface Chemistry**<br>**General Principles and Processes of Isolation of Elements :** Concentration of an ore, Hydraulic washing, Magnetic separation, Froth floatation process<br>**Botany : Principles of Inheritance & Variation:** Mutations - Chromosomal aberrations, Genomatic mutation, Genetic dissorders-pedigree analysis, Mendelian disorder<br>Chromosomal disorder, cytoplasmic inheritance.<br>**Molecular Basis of Inheritance:** Introduction, The DNA-structure of polynucleotide chain, Derivation of DNA structure, DNA packaging in prokaryotes<br>**Zoology : Evolution: Theories & Evidences:** Lamarck's theory, Darwin's theory-Darwin Novelty, Mutation theory, Hardy-Weinberg principle: Gene flow, gene migration, genetic drift, mutation, genetic recombination, natural selection, Speciation: Allopatric and sympatric, Brief account of evolution: Evolution of plant forms, evolutionary history of vertebrates through geological period, Human evolution, prior to ape man, Ape man to prehistoric man, prehistoric to modern man |

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**AAKASH TEST PLANNER :**
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# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 16 | XI | FT-07 | 14-Aug-20 | **Physics : Laws of Motion:** Introduction, Aristotle's fallacy, The law of inertia, Newton's first law of motion, Momentum, Conservation of momentum, Newton's 2nd law of motion, Newton's third laws of motion, Equilibrium of a particle<br>**Chemistry : States of Matter**<br>**Botany : Biological Classification(Contd.):** Reproduction in virus, Diseases, Sub-viral agents – Viroids, Virusoids, Prions; Lichens, Mycorrhiza, **Morphology of Flowering Plants:** Introduction, Root–types, function, regions, modifications, Introduction of stem, bud, function of stem, modification of stem, Leaf–introduction, parts, venation, types (simple and compound leaf), Leaf-Phyllotaxy, Modifications, Inflorescence – racemose and cymose, Flowers-terminology, symmetry.<br>**Zoology : Body Fluids & Circulation-II:** Double circulation, heart beat, regulation of heart beat- Neural regulation, hormonal regulation, Blood Vessels-Aorta, Arteries, Arterioles, Capillaries, Venules, Veins, Vena Cava, Lymphatic system, Disorders of circulatory system-Hypertension, Coronary artery diseases, Angina, Heart failure, **Excretory Products & their Elimination** |
| 17 | XII | TE-02 | 14-Aug-20 | **Physics : Electric Charges & Field, Electrostatic Potential and Capacitance:** Introduction, electrostatic potential, potential due to a point charge, potential due to an electric dipole, potential due to a system of charges, Equipotential surfaces, Calculating field from potential, Potential energy of a system of charges, Potential energy in an external field *[for 9 Questions out of 45 Questions]*<br>**Electrostatic Potential and Capacitance:** Electrostatics of conductors, dielectrics and polarization, Capacitors and capacitance, The parallel plate capacitor, Effect of dielectrics on capacitance, Combination of capacitors, Energy stored in a capacitor, Van de Graaff Generator, **Current Electricity, Moving Charges and Magnetism:** Introduction, Magnetic force, Motion in a magnetic field, Motion in combined Electric and Magnetic fields. *[For 36 Questions out of 45]*<br>**Chemistry : Solid State, Solutions** *[for 9 Questions out of 45 Questions]*<br>**Electrochemistry, Chemical Kinetics, Surface Chemistry** *[For 36 Questions out of 45]*<br>**Botany : Reproduction in Organisms, Sexual Reproduction in Flowering Plants** *[for 9 Questions out of 45 Questions]*<br>**Principles of Inheritance & Variation, Molecular Basis of Inheritance** (upto DNA packaging in prokaryotes) *[For 36 Questions out of 45]*<br>**Zoology : Reproduction in Organisms, Human Reproduction** [for 9 Questions out of 45 Questions]<br>**Reproductive Health, Evolution: Theories & Evidences:** [for 36 Questions out of 45 Questions] |

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**AAKASH TEST PLANNER :**
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# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 18 | XI | FT-08 | 28-Aug-20 | **Physics : Laws of Motion(Contd.):** Common forces in mechanics, Friction, Circular motion., Solving problems in mechanics.<br>**Chemistry : Thermodynamics**<br>**Botany : Morphology of Flowering Plants (Contd.):** Position of floral parts on thalamus, parts of flower (calyx and corolla), aestivation, Androecium- adhesion, cohesion; Gynoecium, Placentation, Fruits–parts, types, edible parts, Structure of dicotyledonous and monocotyledonous seed, Families– brassicaceae, fabaceae, solanaceae, liliaceae.<br>**Zoology : Locomotion & Movement-I:** Types of movements: Ciliary, protoplasmic streaming, flagellar, muscular; Types of muscles and their structures. Muscle contraction-structure of contractile proteins-actin, myosin, troponin and tropomyosin. 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., Properties of muscle contraction: All or none principle, single muscle twitch, energy source of muscle contraction, Cori's cycle, Rigor mortis, red and white muscle fibres, Isometric and isotonic contraction. Treppe or staircase phenomenon, disorders of muscles-Myasthenia gravis, muscular dystrophy, tetany, Axial skeleton: Skull-cranial bones, facial bones, Hyoid, Ear ossicles malleus, incus, stapes, Vertebral column-cervical, thoracic, lumbar, sacral, coccyx vertebrae, curves of the vertebral column. Ribs-vertebrosternal/True ribs, vertebrachondral/False ribs, Vertebral/Floating ribs, rib cage, sternum. |
| 19 | XII | FT-07 | 28-Aug-20 | **Physics : Moving Charges and Magnetism:** Biot-savart's law, Magnetic field on the axis of a circular current loop, Cyclotron, Magnetic field due to a current element, Ampere' Circuital Law, The solenoid and the toroid ,Force between two parallel currents, the ampere, Torque on current loop, Magnetic dipole, Moving coil Galvanometer,<br>**Magnetism and Matter:** The bar magnet, Magnetism and Gauss's Law, The Earth's magnetism.<br>**Chemistry : General Principles and Processes of Isolation of Elements:** Leaching, Thermodynamic aspects of Metallurgy (Ellingham diagram), Refining of metals, uses of Al, Cu, Zn and Fe,<br>**p-Block Elements:** (Group-15 to 17)<br>**Botany : Molecular Basis of Inheritance:** DNA Packaging in eukaryotes, The search for genetic material, Transforming principle, Evidence from experiments with bacteriophage, Properties of genetic material<br>RNA world, Replication of DNA - The experimental proof, The machinery and enzymes., Transcription - Transcription unit, Types of RNAs, Process of Transcription in prokaryotes and Eukaryotes<br>**Zoology : Human Health & Disease:** Health–Various types of diseases in humans–bacterial, viral etc., Fungal: Ringworms, Helminthic: ascariasis, elephantiasis, Protozoan: Life cycle of *Plasmodium vivax* and *Entamoeba histolytica* , Types of Immunity–Innate and acquired, active & passive Immunity, humoral mediated immunity |

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| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 20 | XII | FT-08 | 11-Sep-20 | **Physics : Magnetism and Matter:** Tangent Law and its applications, Magnetization and magnetic intensity, Magnetic properties of materials,Permanent magnets and electromagnets, **Electromagnetic induction**<br>**Chemistry : p-Block Elements**: (Group-18)<br>**d & f-Block Elements**<br>**Botany : Molecular Basis of Inheritance:** Genetic code - Salient features, t-RNA - The adapter molecule, Translation.<br>Regulation of gene expression, Operon concept<br>Human genome project - Goals, Methodologies, Salient features, Applications and Future challenges, DNA fingerprinting.<br>**Zoology : Human Health & Disease:** Cell Mediated Immunity, vaccination and immunisation<br>Allergies, auto immunity, immune system of the body, lymphoid organs: primary and secondary, AIDS–Causes, detection, symptoms and prevention, Cancer–Causes, detection, diagnosis and treatment |
| 21 | XII | FT-09 | 25-Sep-20 | **Physics : Alternating Current, Electromagnetic Waves**<br>**Chemistry : Coordination Compounds**<br>**Botany : Strategies for Enhancement in Food Production:** Introduction, Plant breeding – Definition, Main steps<br>Green revolution, Plant breeding for disease resistance, Plant breeding for resistance to insect pests, Improved food quality, Anti nutritional factors, Single cell protein, Green manure, Energy crops, Petroleum plants, Tissue culture – Definition, Environmental conditions, Types, Applications<br>**Microbes in Human Welfare:** Introduction, Microbes in household products, Industrial products.<br>**Zoology : Human Health & Disease:** Drugs and alcohol abuse-Opioids, Cannabinoids, Sedatives and tranquilisers, Hallucinogens, Stimulants, Tobacco adiction.<br>Adolescence, addiction & dependence, effects of drugs & alcohol abuse, prevention & control<br>**Animal Husbandry:** Live stocks, animal Breeding, inbreeding, outbreeding, out crossing, cross breeding, Interspecific hybridisation, MOET, artificial insemination<br>Dairy farm management, poultry farm management, indigenous & exotic breeds, bacterial, viral & fungal disease |

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# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 22 | XII | TE-03 | 9-Oct-20 | **Physics : Electrostatic Potential and Capacitance:** Electrostatics of conductors, dielectrics and polarization, Capacitors and capacitance, The parallel plate capacitor, Effect of dielectrics on capacitance, Combination of capacitors, Energy stored in a capacitor, Van de Graaff Generator**, Current Electricity, Moving Charges and Magnetism:** Introduction, Magnetic force, Motion in a magnetic field, Motion in combined Electric and Magnetic fields *[For 9 Questions out of 45]*<br>**Moving Charges and Magnetism:** Biot-savart's law, Magnetic field on the axis of a circular current loop, Cyclotron, Magnetic field due to a current element, Ampere' Circuital Law, The solenoid and the toroid ,Force between two parallel currents, the ampere, Torque on current loop, Magnetic dipole, Moving coil Galvanometer, **Magnetism and Matter, Electromagnetic induction, Alternating Current, Electromagnetic Waves** *[For 36 Questions out of 45]*<br>**Chemistry : Electrochemistry, Chemical Kinetics, Surface Chemistry** *[For 9 Questions out of 45]*<br>**General Principles and Processes of Isolation of Elements, p-Block Elements, d & f-Block Elements, Coordination Compounds** *[For 36 Questions out of 45]*<br>**Botany : Principles of Inheritance & Variation, Molecular Basis of Inheritance** (upto DNA packaging in prokaryotes) [For 9 Questions out of 45]<br>**Molecular Basis of Inheritance** (from DNA Packaging in eukaryotes)**, Strategies for Enhancement in Food Production**<br>**Microbes in Human Welfare (Upto Industrial products)**<br>[For 36 Questions out of 45]<br>**Zoology : Reproductive Health, Evolution: Theories & Evidences:** [for 9 Questions out of 45 Questions]<br>**Human Health & Disease,**<br>**Animal Husbandry:** Live stocks, animal Breeding, inbreeding, outbreeding, out crossing, cross breeding, Interspecific hybridisation, MOET, artificial inseminationDairy farm management, poultry farm management, indigenous & exotic breeds, bacterial, viral & fungal disease [for 36 Questions out of 45 Questions] |

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# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 23 | XI | FT-09 | 16-Oct-20 | **Physics : Work, Energy & Power**<br>**Chemistry : Equilibrium:** Chemical equilibrium : Liquid-vapour, Solid-liquid and solid-vapour equilibria, General characteristics of equilibria involving physical and chemical process, Law of chemical equilibrium and equilibrium constant, Homogeneous and heterogeneous equilibria, Application of equilibrium constants. Predicting the extent and the direction of reactions. Calculating equilibrium concentrations., Relationship between equilibrium constant, Reaction quotient and Gibb's energy, Factors affecting equilibria: Change in concentration, pressure, temperature and effect of catalyst and effect of addition of inert gas., Acids bases : Arrhenius, Bronsted-Lowry and Lewis concepts, Ionisation of acids and bases, Ionisation constant of water and its ionic product.,<br>**Botany : Anatomy of Flowering Plants**<br>**Zoology : Locomotion & Movement-II:** 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). Joints-fibrous, cartilaginous and synovial (Ball and socket, hinge, pivot, gliding and saddle joint), Bone & Joint disorders-Arthritis, Osteoporosis, Gout etc., **Neural Control & Coordination-I:** 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-Resting membrane potential, spike potential, action potential, depolarization, repolarisation, hyperpolarisation, Synapses: Electrical and Chemical, synaptic transmission, mechanism of transmission of nerve impulse through electrical and chemical synapse. Neurotransmitters: excitatory and inhibitory, Structure of Brain: Forebrain, cerebrum, thalamus, hypothalamus, limbic system and their functions, mid brain (corpora quadrigemina and crura cerebri), hind brain (cerebellum, pons, medulla) ventricles of brain and cerebrospinal fluid. |
| 24 | XII | FT-10 | 23-Oct-20 | **Physics : Ray Optics & Optical Instruments,**<br>**Chemistry : Haloalkanes and Haloarenes**<br>**Botany : Microbes in Human Welfare:** Microbes in sewage treatment, Biogas production,<br>Biocontrol agents, Biofertilizers.<br>**Organisms and Populations:** Introduction, Levels of organisation, Major biomes.<br>Abiotic Factors - Temperature, Light, Water, Soil<br>**Zoology : Animal Husbandry:** Bee keeping, Sericulture, Aqua culture (Fisheries)<br>**Biotechnology-Principles and Processes:** Principles of Biotechnology, tools of recombinant DNA technology |
| 25 | XII | FT-11 | 6-Nov-20 | **Physics : Wave Optics, Dual Nature of Radiation and Matter**<br>**Chemistry : Alcohols, Phenols and Ethers**<br>**Botany : Organisms and Populations:** Response to abiotic factors, Adaptations, Population – characteristics, growth, growth models, Population Interaction<br>**Ecosystem**<br>**Zoology : Biotechnology-Principles and Processes:** Separation and isolation of DNA fragments, cloning vectors, competent host, Processes of recombinant DNA technology |

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# Test Planner (FT, TE ) for PHASE-1 (2020-21)

| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 26 | XI | FT-10 | 20-Nov-20 | **Physics : System of Particles & Rotational Motion**<br>**Chemistry : Equilibrium:** The pH scale, ionisation constants of weak acids and weak bases, Relation between $K_a$ and $K_b$. Di and Polybasic acid and bases, Factors affecting acid and bases - Strength, Common ion effect in the ionisation of acids and bases, Buffer solution, Salt hydrolysis and solubility product, **Redox Reactions**<br>**Botany : Plant Kingdom, Transport in Plants:** Introduction, Means of transport, Plant water relations–water potential, osmosis, DPD, TP, Plasmolysis, imbibition, Long distance transport of water – absorption of water (apoplast pathway, symplast pathway).<br>**Zoology : Neural Control & Coordination-II: Spinal cord & Peripheral nervous system:** Cranial nerves (name, origin, distribution, nature and their functions), Spinal nerves-their branches and plexuses in detail. **Autonomic nervous system**-sympathetic and parasympathetic nervous system and their functions., **Reflex action:** Reflex arc, characteristics, types of reflexes and their examples. Detail of knee jerk reflex, importance of reflex action., **Sensory perception and processing: Human eye:** Detailed structure & function**, Nose:** Olfactory receptors, its structure and mechanism/working. **Tongue:** Different types of papillae & taste buds, its structure and working. **Different types of receptors in skin-**Tangoreceptor, algesireceptor, thermoreceptor, **Ear:** Detailed structure & function, **Chemical Coordination & Integration, Animal Kingdom-General Account & Non chordates-I:** Basis of classification, Levels of organisation, Symmetry, Body-plan, Protostomous, Deuterostomous, Coelom-its types, Open/closed vascular system, Segmentation, Notochord, Broad classification of Kingdom Animalia based on common fundamental features, **Porifera, Cnidaria, Ctenophora, Platyhelminthes.** |
| 27 | XII | FT-12 | 20-Nov-20 | **Physics : Atoms & Nuclei**<br>**Chemistry : Aldehydes, Ketones and Carboxylic Acids**<br>**Botany : Biodiversity and Conservation, Environmental Issues**<br>**Zoology : Biotechnology and its Applications** |
| 28 | XII | FT-13 | 11-Dec-20 | **Physics : Semiconductor, Communication System**<br>**Chemistry : Amines, Biomolecules, Polymers, Chemistry in Everyday Life**<br>**Botany : Complete Syllabus of Class XII**<br>**Zoology : Complete Syllabus of Class XII** |
| 29 | XI | FT-11 | 18-Dec-20 | **Physics : Gravitation, Mechanical Properties of Solids**<br>**Chemistry : Hydrogen, The s-Block Elements, The p-Block Elements (Group 13 & 14)**<br>**Botany : Transport in Plants(Contd.):** Mechanism of absorption, Ascent of sap– root pressure (including guttation), Transpiration pull , Transpiration – structure of stomata, mechanism of opening and closing of stomata, factors affecting transpiration, significance, Transpiration and photosynthesis – a compromise, Uptake and transport of mineral, Nutrients, Phloem transport–pressure flow or mass flow hypothesis, Demonstration of translocation of food by phloem by girdling experiment, **Mineral Nutrition**<br>**Zoology : Animal Kingdom-General Accounts & Non-chordates-II: Aschelminthes / Nematode, Annelida, Arthropoda, Mollusca, Echinodermata, Hemichordata.** |

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| Sr. No. | Class | Test Name | Test Date | Test Syllabus |
|---|---|---|---|---|
| 30 | XI | FT-12 | 15-Jan-21 | **Physics : Mechanical Properties of Fluids, Thermal Properties of Matter**<br>**Chemistry : Organic Chemistry : Some Basic Principles & Techniques:** Tetravalency of carbon, Structure of organic compounds, Classification of organic compounds, Nomenclature of organic compounds (excluding functional group)., IUPAC nomenclature of organic compounds including mono and bi functional groups., Isomerism : Structural isomerism including tautomerism, Stereoisomerism (Definition)., Fundamental concepts in organic reaction, Mechanism : Bond fission, Nucleophile and electrophile, Inductive and electromeric effect, Resonance effect., Hyperconjugation<br>**Botany : Photosynthesis in Higher Plants**<br>**Zoology : Animal Kingdom-Chordates** |
| 31 | XI | FT-13 | 5-Feb-21 | **Physics : Themodynamics, Kinetic Theory, Oscillations, Waves**<br>**Chemistry : Organic Chemistry : Some Basic Principles & Techniques(Contd.):** Reaction intermediates : Carbocation, Carbanion, Carbon free radicals, Carbene, Types of organic reactions and mechanism : Substitution reactions, Addition, Elimination and rearrangement reactions, Purification of organic compounds, Qualitative analysis, Quantitative analysis, **Hydrocarbons, Environmental Chemistry.**<br>**Botany : Respiration in Plants, Plant Growth and Development**<br>**Zoology : Structural Organisation in Animals– Animal Morphology** |