SYLLABI FOR UPSEE-2018

PAPER - 1 (PHYSICS, CHEMISTRY & MATHEMATICS)

Section A, PHYSICS

Measurement: Dimensional analysis and error estimation, dimensional compatibility and significant figures.

Motion in one dimension: Average velocity, instantaneous velocity, one-dimensional motion with constant accelerations, freely falling bodies.

Laws of Motion: Force and inertia, Newton's laws of motion, and their significance.

Motion in two dimensions: Projectile motion, uniform circular motion, tangential and radial acceleration in curve-linear motion, relative motion and relative acceleration.

Work, Power and Energy: Work done by a constant and variable forces, kinetic and potential energy, power, Conservative and non-conservative forces, conservation of energy, gravitational energy, work energy theorem, potential energy stored in a spring.

Linear Momentum & collisions: Linear momentum & impulse, conservation of linear momentum for two particle system, collisions, collision in one dimension, collision in two dimension, rocket propulsion.

Rotation of a rigid body about a fixed axis: Angular velocity and angular acceleration, rotational kinematics, rotational motion with constant angular acceleration relationship between angular and linear quantities, rotational energy, moment of inertia for a ring, rod, spherical shell, sphere and plane lamina, torque and angular acceleration, work and energy in rotational motion, rolling motion of a solid sphere and cylinder.

Gravitation: Gravitational field, Kepler's laws and motion of planets, planetary and satellite motion, geostationary satellite.

Oscillatory motion: Harmonic motion, oscillatory motion of mass attached to a spring, kinetic & potential energy, Time Period of a simple pendulum, comparing simple and harmonic motion with uniform circular motion, forced oscillations, damped oscillations and resonance.

Mechanics of solids and fluids: States of matter young's modulus, bulk modulus, shear modulus of rigidity, variations of pressure with depth, Buoyant forces and Archimedes principle, Pascal's law, Bernoulli's theorem and its application, surface energy, surface tension, angle of contact, capillary rise, coefficient of viscosity, viscous force, terminal velocity, Stoke's law, stream line motion, Reynold's numbers.

Heat and thermodynamics: First law of thermodynamics, specific heat of an ideal gas at constant volume and constant pressure, relation between them, thermodynamics process (reversible, irreversible, isothermal, adiabatic), second law of thermodynamics, concept of entropy and concept of absolute scale, efficiency of a Carnot engine, thermal conductivity, Newton's law of cooling, black body radiation, Wien's displacement law, Stefan's law.

Wave: Wave motion, phase, amplitude and velocity of wave, Newton's formula for longitudinal waves, propagation of sound waves in air, effect of temperature and pressure on velocity of sound, Laplace's correction, Principle of superposition, formation of standing waves, standing waves in strings and pipes, beats, Doppler's effect.

Electrostatics: Coulomb's law, electric field and potential due to point charge, dipole and its field along the axis and perpendicular to axis, electric flux, Gauss's theorem and its applications to find the field due to infinite sheet of charge, and inside the hallow conducting sphere, capacitance, parallel plate capacitor

with air and dielectric medium between the Plates, series and parallel combination of capacitors, energy of a capacitor, displacement currents.

Current Electricity: Concept of free and bound electrons, drift velocity and mobility, electric current, Ohm's law, resistivity, conductivity, temperature dependency of resistance, resistance in series and parallel combination, Kirchhoff's law and their application to network of resistances, principle of potentiometer, effect of temperature on resistance and its application.

Magnetic Effect of Current: Magnetic field due to current, Biot-Savart's law, magnetic field due to solenoid, motion of charge in a magnetic field, force on a current carrying conductors and torque on current loop in a magnetic field, magnetic flux, forces between two parallel current carrying conductors, moving coil galvanometer and its conversion into ammeter and voltmeter.

Magnetism in Matter: The magnetization of substance due to orbital and spin motions of electrons, magnetic moment of atoms, diamagnetism, paramagnetism, ferromagnetism, earth's magnetic field and its components and their measurement.

Electromagnetic induction: Induced e.m.f., Faraday's laws, Lenz's law, electromagnetic induction, self and mutual induction, B-H curve, hysteresis loss and its importance, eddy currents.

Ray Optics and optical instruments: Sources of light, luminous intensity, luminous flux, illuminance, photometry, wave nature of light, Huygen's theory for propagation of light and rectilinear propagation of light, reflection of light, total internal reflection, reflection and refraction at spherical surfaces, focal length of a combination of lenses, spherical and chromatic aberration and their removal, refraction and dispersion of light due to a prism, simple and compound microscope, reflecting and refracting telescope, magnifying power and resolving power.

Wave Optics: Coherent and incoherent sources of light, interference, young's double slit experiment diffraction due to a single slit, linearly polarized light, Polaroid.

Modern Physics: Photo-electric equation, matter waves, quantization, Planck's hypothesis, Bohr's model of hydrogen atom and its spectra, ionization potential, Rydberg constant, solar spectrum and Fraunhofer lines, fluorescence and phosphorescence, X-Rays and their productions, characteristic and continuous spectra.

Nuclear Instability, radioactive decay laws, Emission of α , β , γ rays, Mass - defect, Mass Energy equivalence, Nuclear Fission Nuclear Reactors, Nuclear Fusion.

Classification of conductors, Insulators and semiconductors on the basis of energy bands in solids, PN junction, PN Diode, junction Transistors, Transistor as an amplifier and Oscillator.

Principles of Logic Gates (AND, OR and NOT) Analog Vs Digital communication, Difference between Radio and television, Signal propagation, Principle of LASER and MASER, Population Inversion, Spontaneous and stimulated Emission.

Section B, CHEMISTRY

Atomic Structure: Bohr's concept. Quantum numbers, Electronic configuration, molecular orbital theory for homonuclear molecules, Pauli's exclusion principle.

Chemical Bonding: Electrovalency, co-valency, hybridization involving s, p and d orbitals hydrogen bonding.

Redox Reactions: Oxidation number, oxidising and reducing agents, balancing of equations.

Chemical Equilibrium and Kinetics: Equilibrium constant (for gaseous system only) Le Chatelier's principle, ionic equilibrium, Ostwald's dilution law, hydrolysis, pH and buffer solution, solubility product, common-ion effect, rate constant and first order reaction.

Acid-Base Concepts: Bronsted Lowry & Lewis. **Electrochemistry**: Electrode potential and electrochemical series. **Catalysis**: Types and applications.

Colloids: Types and preparation, Brownian movement, Tyndall effect, coagulation and peptization. **Colligative Properties of Solution**: Lowering of vapor pressure, Osmotic pressure, depression of freezing point, elevation of boiling point, determination of molecular weight.

Periodic Table: Classification of elements on the basis of electronic configuration, properties of s,p and d block elements, ionization potential, electronegativity & electron affinity.

Preparation and Properties of the following: Hydrogen peroxide. copper sulfate, silver nitrate, plaster of paris, borax, Mohr's salt, alums, white and red lead, microcosmic salt and bleaching powder, sodium thiosulfate.

Thermochemistry: Exothermic & endothermic reactions Heat of reaction, Heat of combustion & formation, neutralization, Hess's law.

General Organic Chemistry: Shape of organic compounds, Inductive effect, mesomeric effect, electrophiles & nucleophiles, Reaction intermediates: carbonium ion, carbanions & free radical, Types of organic reactions, Cannizzaro Friedel Craft, Perkin, Aldol condensation.

Isomerism: Structural, Geometrical & Optical **IUPAC**: Nomenclature of simple organic compounds. **Polymers**: Addition & condensation polymers

Corbohydrates: Monosaccharides.

Preparation and Properties Of the Followings: Hydrocarbons, monohydric alcohols, aldehydes, ketones, monocarboxylic acids, primary amines, benzene, nitrobenzene, aniline, phenol, benzaldehyde, benzoic acid, Grignard Reagent.

Solid State: Structure of simple ionic compounds, Crystal imperfections (point defects only), Born-Haber cycle

Petroleum: Important industrial fractions, cracking, octane number, anti-knocking compounds.

Section C, MATHEMATICS

Algebra: Sets relations & functions, De-Morgan's Law, Mapping Inverse relations, Equivalence relations, Peano's axioms, Definition of rationals and integers through equivalence relation, Indices and surds, Solutions of simultaneous and quadratic equations, A.P., G.P. and H.P., Special sums i.e. Σn^2 and Σn^3 ($n\Sigma N$), Partial fraction, Binomial theorem for any index, exponential series, Logarithm and Logarithmic series. Determinants and their use in solving simultaneous linear equations, Matrices, Algebra of matrices, Inverse of a matrix, Use of matrix for solving equations.

Probability: Definition, Dependent and independent events, Numerical problem on addition and multiplication, theorem of probability.

Trigonometry: Identities, Trigonometric equations, properties of triangles, solution of triangles, heights and distances, Inverse function, Complex numbers and their properties, Cube roots of unity, De-Moivre's theorem.

Co-ordinate Geometry: Pair of straight lines, Circles, General equation of second degree, parabola, ellipse and hyperbola, tracing of conics.

Calculus: Limits & continuity of functions, Differentiation of function of function, tangents & normal, Simple examples of Maxima & Minima, Indeterminate forms, Integration of function by parts, by substitution and by partial fraction, definite integral, application to volumes and surfaces of frustums of sphere, cone and cylinder. Differential equations of first order and of first degree.

Vectors: Algebra of vectors, scalar and vector products of two and three vectors and their applications. **Dynamics:** Velocity, composition of velocity, relative velocity, acceleration, composition of accelerations, Motion under gravity, Projectiles, Laws of motion, Principles of conservation of momentum and energy, direct impact of smooth bodies.

Statics: Composition of coplanar, concurrent and parallel forces moments and couples resultant of set of coplanar forces and condition of equilibrium, determination of centroid in simple cases, Problems involving friction.

PAPER - 2 (PHYSICS, CHEMISTRY & BIOLOGY)

Section A, PHYSICS

Measurement: Dimensional analysis and error estimation, dimensional compatibility and significant figures.

Motion in one dimension: Average velocity, instantaneous velocity, one-dimensional motion with constant accelerations, freely falling bodies.

Laws of Motion: Force and inertia, Newton's laws of motion, and their significance.

Motion in two dimensions: Projectile motion, uniform circular motion, tangential and radial acceleration in curve-linear motion, relative motion and relative acceleration.

Work, Power and Energy: Work done by a constant and variable forces, kinetic and potential energy, power, Conservative and non-conservative forces, conservation of energy, gravitational energy, work energy theorem, potential energy stored in a spring.

Linear Momentum & collisions: Linear momentum & impulse, conservation of linear momentum for two particle system, collisions, collision in one dimension, collision in two dimension, rocket propulsion.

Rotation of a rigid body about a fixed axis: Angular velocity and angular acceleration, rotational kinematics, rotational motion with constant angular acceleration relationship between angular and linear quantities, rotational energy, moment of inertia for a ring, rod, spherical shell, sphere and plane lamina, torque and angular acceleration, work and energy in rotational motion, rolling motion of a solid sphere and cylinder.

Gravitation: Gravitational field, Kepler's laws and motion of planets, planetary and satellite motion, geostationary satellite.

Oscillatory motion: Harmonic motion, oscillatory motion of mass attached to a spring, kinetic & potential energy, Time Period of a simple pendulum, comparing simple and harmonic motion with uniform circular motion, forced oscillations, damped oscillations and resonance.

Mechanics of solids and fluids: States of matter young's modulus, bulk modulus, shear modulus of rigidity, variations of pressure with depth, Buoyant forces and Archimedes principle, Pascal's law, Bernoulli's theorem and its application, surface energy, surface tension, angle of contact, capillary rise, coefficient of viscosity, viscous force, terminal velocity, Stoke's law, stream line motion, Reynold's numbers.

Heat and thermodynamics: First law of thermodynamics, specific heat of an ideal gas at constant volume and constant pressure, relation between them, thermodynamics process (reversible, irreversible, isothermal, adiabatic), second law of thermodynamics, concept of entropy and concept of absolute scale, efficiency of a Carnot engine, thermal conductivity, Newton's law of cooling, black body radiation, Wien's displacement law, Stefan's law.

Wave: Wave motion, phase, amplitude and velocity of wave, Newton's formula for longitudinal waves, propagation of sound waves in air, effect of temperature and pressure on velocity of sound, Laplace's

correction, Principle of superposition, formation of standing waves, standing waves in strings and pipes, beats, Doppler's effect.

Electrostatics: Coulomb's law, electric field and potential due to point charge, dipole and its field along the axis and perpendicular to axis, electric flux, Gauss's theorem and its applications to find the field due to infinite sheet of charge, and inside the hallow conducting sphere, capacitance, parallel plate capacitor with air and dielectric medium between the Plates, series and parallel combination of capacitors, energy of a capacitor, displacement currents.

Current Electricity: Concept of free and bound electrons, drift velocity and mobility, electric current, Ohm's law, resistivity, conductivity, temperature dependency of resistance, resistance in series and parallel combination, Kirchhoff's law and their application to network of resistances, principle of potentiometer, effect of temperature on resistance and its application.

Magnetic Effect of Current: Magnetic field due to current, Biot-Savart's law, magnetic field due to solenoid, motion of charge in a magnetic field, force on a current carrying conductors and torque on current loop in a magnetic field, magnetic flux, forces between two parallel current carrying conductors, moving coil galvanometer and its conversion into ammeter and voltmeter.

Magnetism in Matter: The magnetization of substance due to orbital and spin motions of electrons, magnetic moment of atoms, diamagnetism, paramagnetism, ferromagnetism, earth's magnetic field and its components and their measurement.

Electromagnetic induction: Induced e.m.f., Faraday's laws, Lenz's law, electromagnetic induction, self and mutual induction, B-H curve, hysteresis loss and its importance, eddy currents.

Ray Optics and optical instruments: Sources of light, luminous intensity, luminous flux, illuminance, photometry, wave nature of light, Huygen's theory for propagation of light and rectilinear propagation of light, reflection of light, total internal reflection, reflection and refraction at spherical surfaces, focal length of a combination of lenses, spherical and chromatic aberration and their removal, refraction and dispersion of light due to a prism, simple and compound microscope, reflecting and refracting telescope, magnifying power and resolving power.

Wave Optics: Coherent and incoherent sources of light, interference, young's double slit experiment diffraction due to a single slit, linearly polarized light, Polaroid.

Modern Physics: Photo-electric equation, matter waves, quantization, Planck's hypothesis, Bohr's model of hydrogen atom and its spectra, ionisation potential, Rydberg constant, solar spectrum and Fraunhofer lines, fluorescence and phosphorescence, X-Rays and their productions, characteristic and continuous spectra.

Nuclear Instability, radioactive decay laws, Emission of α , β , γ rays, Mass - defect, Mass Energy equivalence, Nuclear Fission Nuclear Reactors, Nuclear Fusion.

Classification of conductors, Insulators and semiconductors on the basis of energy bands in solids, PN junction, PN Diode, junction Transistors, Transistor as an amplifier and Oscillator.

Principles of Logic Gates (AND, OR and NOT) Analog Vs Digital communication, Difference between Radio and television, Signal propagation, Principle of LASER and MASER, Population Inversion, Spontaneous and stimulated Emission.

Section B, CHEMISTRY

Atomic Structure: Bohr's concept. Quantum numbers, Electronic configuration, molecular orbital theory for homonuclear molecules, Pauli's exclusion principle.

Chemical Bonding: Electrovalency, co-valency, hybridization involving s,p and d orbitals hydrogen bonding.

Redox Reactions: Oxidation number, oxidising and reducing agents, balancing of equations.

Chemical Equilibrium and Kinetics: Equilibrium constant (for gaseous system only) Le Chaterlier's principle, ionic equilibrium, Ostwald's dilution law, hydrolysis, pH and buffer solution, solubility product, common-ion effect, rate constant and first order reaction.

Acid - Base Concepts: Bronsted Lowry & Lewis. **Electrochemistry**: Electrode potential and electrochemical series. **Catalysis**: Types and applications.

Colloids: Types and preparation, Brownian movement, Tyndall effect, coagulation and peptization. **Colligative Properties of Solution**: Lowering of vapor pressure, Osmotic pressure, depression of freezing point, elevation of boiling point, determination of molecular weight.

Periodic Table: Classification of elements on the basis of electronic configuration, properties of s,p and d block elements, ionization potential, electronegativity & electron affinity.

Preparation and Properties of the following: Hydrogen peroxide. copper sulfate, silver nitrate, plaster of Paris, borax, Mohr's salt, alums, white and red lead, microcosmic salt and bleaching powder, sodium thiosulfate.

Thermochemistry: Exothermic & endothermic reactions Heat of reaction, Heat of combustion & formation, neutralisation, Hess's law.

General Organic Chemistry: Shape of organic compounds, Inductive effect, mesmeric effect, electrophones & nucleophiles, Reaction intermediates: carbonium ion, carbanions & free radical, Types of organic reactions, Cannizzaro Friedel Craft, Perkin, Aldol condensation.

Isomerism: Structural, Geometrical & OpticalIUPAC: Nomenclature of simple organic compounds.Polymers: Addition & condensation polymers

Corbohydrates: Monosaccharides.

Preparation and Properties Of the Followings: Hydrocarbons, monohydric alcohols, aldehydes, ketones, monocarboxylic acids, primary amines, benzene, nitrobenzene, aniline, phenol, benzaldehyde, benzoic acid, Grignard Reagent.

Solid State: Structure of simple ionic compounds, Crystal imperfections (point defects only), Born-Haber cycle

Petroleum: Important industrial fractions, cracking, octane number, anti-knocking compounds.

Section-C BIOLOGY Zoology

Origin of Life: Oparin's theory, Miller's Experiment, Viruses - structure, properties, distribution, classification and pathogenesis (Eg. AIDS, CANCER), Viroids & Prions, Biotic balance.

Organic Evolution: Relationship among organisms and Evidences of organic Evolution - Principles of Evolution - Lamarckism, Darwinism and Speciation.

Mechanism of Organic Evolution: Variations - Definition, causes and types, Mutations (Principles of Hugo de'vries), Role of mutations in speciation. Evolution through ages and human evolution

Human Genetics and Eugenics: Human hereditary traits, study of Twins, A.B.O. blood groups and their inheritance, Rh-factor, Sex determination. Chromosomal aberrations, Important human syndromes, Sex linked characters and their inheritance, Applied Genetics - eugenics, euthenics, euphenics & I.Q. Test.

Applied Biology: Wild life of India - Endangered species: Biosphere Reserves, National Parks and sanctuaries, Project Tiger, Conservation of wild life, Bio-energy, Poultry, Fisheries (edible fishes), Human

Population, Population explosion, problems & control. Test - Tube babies, & Amniocentesis, Application of Biotechnology in human welfare. Human Aging.

Mammalian Anatomy (Eg. Rabbit): Reproductive system (excluding embryonic development) Osteology, structure and organization of different systems.

Animal Physiology:

- (A) *Animal Nutrition:* Food, Balanced diet, Nutritional imbalances and deficiency diseases, Digestion, Absorption, Assimilation of food, (comparison between human and Rabbit).
- (B) *Animal Excretion and Osmoregulation:* Chemical nature of excretory products in various animals, Physiology of excretion, Function of liver and kidney (Homeostatic regulatory functions of kidneys), Formation of urine, Osmoregulation by kidneys.
- (C) *Respiratory system:* Exchange and transport of gases (O₂ and Co₂) factors affecting O₂ and Co₂ transport, Cellular respiration, different lung volumes, breathing and sound production.
- (D) *Nervous systems:* Central, autonomic and peripheral nervous system, Receptors, Effectors, Reflexaction. Nature and conduction of Nerve- impulses, Synapse, Sense organs Structure & working of Eye & Ear, Biochemistry of vision and taste buds.
- (E) *Endocrine System:* Different endocrine glands and Hormones definition, types, characteristics and their functions, (in relation to human beings), Hormonal disorders and pheromones.
- (F) *Circulatory System:* Circulation of body fluids- Blood and lymph, Open and closed vascular systems, Structure and working physiology of Heart, Comparison between arteries and veins, Lymphatic system.
- (G) *Animal Diversity:* Classification of Animal kingdom (Based on Storar & Eusinger), Characteristic feature of different phyla and classes with examples.

Detailed studies of followings:

- (a) Protozoa
 - (i) Amoeba- Habit & Habitat, structure, locomotion, reproduction, Osmoregulation, Parasitic amoeba
 - Entamoeba histolytica and Entamoeba gingivalis, structure, diseases caused by them and their control measures.
 - (ii) Plasmodium vivax-life-cycle, malaria therapy and control.
 - (iii) Protozoan and diseases
- (b) Porifera: A simple sponge (Leucosolenia); Detailed study of structure & physiology, Sponge industry.
- (c) Coelenterata: Hydra Habit and Habitat, morphology, tissue differentiation in relation to physiological division of labour and regeneration.
- (d) Aschelminthes: Ascaris- morphology, life-cycle, therapy and control.
- (e) Annelida: Pheretima posthuma Bionomics and economic importance.
- (f) Arthropoda: (Periplaneta): Structure- external and internal.

Comparison between Periplaneta and Blatta.

- (i) Housefly & Mosquito: structure and life cycle
- (ii) Economic importance of insets & their control.

Botany

Plant Cell: Structure & functions electron microscopic structured mitochondria, Plastids centrosomes. Lysosomes, microsomes, endoplasmic reticulum, Nucleus, Golgibodes, D.N.A & R.N.A. Cytoplasm, membranes and cell wall.

Protoplasm: structure, components physical and chemical properties.

Cell division (formation) - free cell formation, Amitosis & Meiosis, Duplication of D.N.A.

Ecology: Ecological factors (atmospheric, edaphic, climatic, geological & biotic factors).

Ecosystem: Structure, components of ecosystem eg. Water soluble minerals and gases, producers consumers, decomposers, Pond and forest ecosystem.

Atmospheric pollution-causes and control, Types of pollution - Detergents, chemicals automobile exhaust, Radioactive matter, Smog, sound, Pesticides.

Genetics: Mendalism, Mendals experiment and law of inheritance.

Modern Classification of plant kingdom- (according to Ostwald & Tippo) (outline).

Seeds in angiospermic plants: description of development of angiospermic plants (life history of angiospermic plants).

Fruits: Dispersal of fruits and seeds

Cell differentiation Plant Tissue: Meristematic classification of meristematic & permanent tissue and functions and classification of tissue system.

Anatomy of Root, stem and leaf: difference between dicot and Monocot stem. Secondary growth of stem and root. Anatomy of hydrophytes, Xeophytes & Mesophytes.

Important phylums:

Algae: Habitat, general characters & uses, description of ulothrix & spirogyra.

Bacteria: structure - types of nutrition, reproduction and economic importance.

Fungi: structure description of Rhizopus and yeast and their economic importance, Fermentation.

Broyophyta: structure and economic importance, description of funaria (Moss)

Pteridophyta: general structures of pteridophytes description of fern (Droypteris)

General study of gymnosperms and life history of cycas.

Classification of angiosperm,

Description of families - identification and economic importance

Cruciferae, Malvaceae, Leguminosae, compositeae, cucurbitaceae.

Soil:

Absorption of water through root hairs osmosis, Translocation and Root pressure

Nitrogen cycle.

Special modes of nutrition in plants (Autotrophic, heterotrophic, Parasites, saprophytes, Symbionts insectivorous and their ecological relation.

Photosynthesis: Chloroplast, light, chlorophyll and Carbon dioxide, Mechanism of photosynthesis formation of A.T.P. and their functions and importance of photosynthesis.

Transpiration: factors and importance, Mechanism of opening and closing of stomata.

Respiration: aerobic, anaerobic respiration, mechanism of respiration (Glycolysis, Kreb's cycle, E.T.S.) Growth & movement: definition of growth, Region of growth & their measurements, types of movements in plants, Growth harmone.

PAPER – 3 (AG-I, AG II & AG III)

AG - I: AGRICULTURAL PHYSICS AND CHEMISTRY

Agricultural Physics

Unit, measurement, Vernier, screw gauge, Force-analysis, force parallelogram, momentum of force, equilibrium of forces, velocity and acceleration, speed, laws of motion, gravitational motion, acceleration due to gravity, circular motion, Centrifugal and centripetal forces, pressure, Capillary force and tension, atmospheric surface-barometer, Boyle's law, friction and simple example of its laws, Working of common

pumps, operation, performance, power and energy, heat and temperature, radiation, convection and conduction, heat conductance, specific heat in relation to solids, physical change in the solid due to heat, latent heat, relationship between heat and work, dew point, relative humidity and its determination, formation of clouds, fog frost, snow and halls, weather and its forecasting.

Agricultural Chemistry

Matter - solid and liquid, physical and chemical changes, element, mixture, compound, laws of chemical combination, laws of conservation, laws of proportion, laws of gases, explanation of above laws in reference to atomic principle, atomic laws, new & old concepts, definition, simple explanation and interrelationship of the following:

Valency, atomic weight, molecular weight, equivalent weight, structure of atom, Avogadro's hypothesis and its uses, ionic theory, difference between atom and ion, explanation of the following with the help of ionic theory, electrolysis, acid, alkali, salt, water, hydrolysis and neutralisations, oxidation and reduction, classification of elements.

Inorganic Chemistry: Water and its hardness, methods of treatment of hard water and soft water, occurrence of compounds, properties and uses of the followings elements nitrogen, ammonia, nitric acid, carbon, carbon dioxide, phosphoric acid, sulfur dioxide, sulfuric acid, chlorine, hydrochloric acid. Occurrence properties, uses and their functions in the plants of the following: Sodium, sodium chloride, sodium hydroxide, sodium carbonate, sodium bicarbonate, sodium phosphate, sodium nitrate, potassium sulfate, Calcium, calcium oxide, calcium carbonate, calcium sulfate and calcium nitrate, Iron, sulfate and iron phosphate, aluminum, aluminum sulfate and aluminum phosphate Nitrogen cycle, Fixation of nitrogen in the soil, function of Super-phosphate and phosphorus in plant, nitrogen fertilizers.

Organic Chemistry: Formation of organic compounds, physical properties, nomenclature, general knowledge of the following compounds, simple formulae, general properties and main uses, Structural formula of the following: Hydrocarbon (saturated and unsaturated) alcohol ethyl alcohol and glycol, aldehyde and ketones, formaldehyde, acetone, amine and oxide, methyl and ethylamine, urea, <u>Acids:</u> acetic, benzoic, lactic, Oxalic acids, fats and oils, soap and saponification, carbohydrates, glucose, fructose, starch, simple methods of making benzene and phenol and their properties.

AG – II: AGRICULTURAL ENGINEERING AND STATISTICS

Agricultural Engineering

Properties of different materials used in agricultural implements, Classification of plough their merits, comparison, common troubles in their operation and precautions, maintenance, assembly, cost and comparison of cultivation harrow, hoe, float, scraper and seed drill, draft of implements. Their measurements, factors affecting draft. Water lifts, their discharge, capacities, command area, and cost of irrigation (water lifts should include common water lifts and low lift pumps). Tillage and ploughing, types of ploughing and their merits. Types and objects tillage. Chemical and Physical effects of tillage practices for different crops. Transmission of power through gears. Pulleys and belts, hand operated chaff cutters, cane crusher, winnowing fan, and splash threshers.

Agricultural Statistics

Collection of data, classification and tabulation, frequency distribution, mean and their kinds, merits and demerits. Measurements of dispersion.

AG – III: AGRONOMY & AGRICULTURAL BOTANY

Agronomy

Crops: Cultivation, practices of common crops of India and their varieties...

Soils: Origin, classification and physical properties of soils, soil conservation.

Manures And Manuring: Nutrients for plants growth, uptake of N.P.K. organic and inorganic fertilizers, farmyard and green manures, their properties and method of application, knowledge of following manures and fertilizer: FYM, compost, urinated soil, castor and groundnut cake, ammonium sulfate, sodium nitrate, super phosphate, potassium sulfate, urea, CAN ammonium chloride and mixtures.

Irrigation & Drainage: Methods, measurement and type of irrigation and drainage systems, Cultivation practices of common vegetable and fruit crops.

Agricultural Botany

External morphology of plants, function and modification of stem, root and leaves, structure and function of different parts of flower, type of inflorescence, pollen and pollination, classification, structure, germination and dispersal of seeds, type of function and their dispersal, internal morphology of plant cell, reproductive organs of angiosperms, knowledge of structure of rlltharis, Absorption, Respiration, Transpiration and carbon assimilation, root pressure, Translocation of foods and storage, Introductory knowledge of Taxonomy and plant kingdom specially Regional and Horticultural plants laminaries, Cruciferous, Leguminous, Cucurbitaceae, Solonaceae, Malbaceae, Elementary Knowledge of mosses, ferns, mucors, bacteria.

PAPER – 4 (APTITUDE TEST FOR ARCHITECTURE)

<u>Part – A: Mathematics & Aesthetic Sensitivity</u> <u>MATHEMATICS</u>

Algebra: Sets relations & functions, De-Morgan's Law, Mapping Inverse relations, Equivalence relations, Peano's axioms, Definition of rationals and integers through equivalence relation, Indices and surds, Solutions of simultaneous and quadratic equations, A.P., G.P. and H.P., Special sums i.e. Σn^2 and Σn^3 ($n\Sigma N$), Partial fraction, Binomial theorem for any index, exponential series, Logarithm and Logarithmic series. Determinants and their use in solving simultaneous linear equations, Matrices, Algebra of matrices, Inverse of a matrix, Use of matrix for solving equations.

Probability: Definition, Dependent and independent events, Numerical problem on addition and multiplication, theorem of probability.

Trigonometry: Identities, Trigonometric equations, properties of triangles, solution of triangles, heights and distances, Inverse function, Complex numbers and their properties, Cube roots of unity, De-Moivre's theorem.

Co-ordinate Geometry: Pair of straight lines, Circles, General equation of second degree, parabola, ellipse and hyperbola, tracing of conics.

Calculus: Limits & continuity of functions, Differentiation of function of function, tangents & normal, Simple examples of Maxima & Minima, Indeterminate forms, Integration of function by parts, by substitution and by partial fraction, definite integral, application to volumes and surfaces of frustums of sphere, cone and cylinder. Differential equations of first order and of first degree.

Vectors: Algebra of vectors, scalar and vector products of two and three vectors and their applications.

Dynamics: Velocity, composition of velocity, relative velocity, acceleration, composition of accelerations, Motion under gravity, Projectiles, Laws of motion, Principles of conservation of momentum and energy, direct impact of smooth bodies.

Statics: Composition of coplanar, concurrent and parallel forces moments and couples resultant of set of coplanar forces and condition of equilibrium, determination of centroid in simple cases, Problems involving friction.

Aesthetic sensitivity

Aesthetic sensitivity Test is aimed to evaluate a candidate for aesthetic Perception, Imagination, and Observation; Creativity and Communication; and Architectural awareness.

- Visualizing three dimensional objects from two dimensional drawings
- Visualizing different sides / surfaces of three dimensional objects.
- Identifying commonly used materials and objects based on their textural qualities.
- Analytical Reasoning
- Mental Ability
- Imaginative comprehension and expression
- Architectural awareness

Part- B: Drawing Aptitude

The Drawing Aptitude Test is aimed to evaluate a candidate for his understanding of Scale and Proportion; sense of perspective, color and; understanding of the effects of light on objects through shades and shadows

- Ability to sketch a given object proportionately and rendering the same in visually appealing manner
- Visualising and drawing the effects of light on the objects and their shadow cast on the surroundings.
- Sense of Perspective Drawing
- Combining and composing given three dimensional elements to form a building or structural form
- Creating interesting two dimensional compositions using given shapes or planner forms
- Creating visual harmony using colors in given composition
- Understanding of scale and sense of proportion

PAPER - 5 (APTITUDE TEST FOR GENERAL AWARENESS (BHMCT/BFAD/BFA))

(A) Reasoning & Logical Deduction:

- Geometrical designs & Identification
- Selection of related letters / words / numbers / figures
- Identification of odd thing / item out from a group
- Completion of numerical series based on the pattern / logic
- Fill in the blanks of the series based on the numerical pattern and logic of the series
- Syllogisms (logic based questions), Identification of logic & selection of correct answers based on the logic

(B) Numerical Ability & Scientific Aptitude:

Arithmetical questions up to 10th standard

- Calculation of fraction, percentages, square roots etc.
- Profit & Loss and Interest calculations
- Data / Table analysis, Graph & Bar Diagram and Pie Chart analysis
- Questions related to common use of science (Physics & Chemistry)
- Health & Nutrition

(C) General Knowledge:

- Current affairs / Events (Political, Social, Cultural & Economics)
- Historical events
- Geography including Tourist Places / Spots
- Current affairs relating to Business & Trade
- Countries & Currencies
- Latest Who's Who?
- Sports & Games

(D) English Language:

- Word Meanings
- Antonyms & Synonyms
- Meaning of Phrases & Idioms
- Fill in the blanks
- Complete / Improvement of the sentences with correct use of Pronouns, Verbs, Adverbs & Adjectives
- Reading comprehension's followed by questions

PAPER – 6 (APTITUDE TEST FOR DIPLOMA HOLDERS IN ENGINEERING)

Engineering Mechanics, Engineering Graphics, Basic Electrical Engg., Basic Electronics Engg., Elements of computer science, Elementary Biology, Basic Workshop Practice and Physics/Chemistry/Maths of Diploma standard.

PAPER - 7 (APTITUDE TEST FOR DIPLOMA HOLDERS IN PHARMACY)

- 1. Pharmaceutics-I
- 2. Pharmaceutical Chemistry I
- 3. Pharmacognosy
- 4. Biochemistry and Clinical Pathology
- 5. Human Anatomy and Physiology
- 6. Health Education & Community Pharmacy
- 7. Pharmaceutics II
- 8. Pharmaceutical Chemistry II
- 9. Harmacology and Toxicology
- 10. Pharmaceutical Jurisprudence
- 11. Drug Store and Business management
- 12. Hospital and Clinical Pharmacy

PAPER - 8 (APTITUDE TEST FOR B.SC. GRADUATE IN ENGINEERING)

Linear Algebra: Matrix Algebra, Systems of linear equations, Eigen values and eigen vectors.

Calculus: Mean value theorems, Theorems of integral calculus, Evaluation of definite and improper integrals, Partial Derivatives, Maxima and minima, multiple integrals, Fourier series. Vector identities, Directional derivatives, Line, Surface and Volume integrals, Stokes, Gauss and Green's theorems.

Differential equations: First order equation (linear and nonlinear), Higher order linear differential equations with constant coefficients, Method of variation of parameters, Cauchy's and Euler's equations, Initial and boundary value problems, Linear partial differential equations with constant coefficients of 2nd order and their classifications and variable separable method.

Complex variables: Analytic functions, Cauchy's integral theorem and integral formula, Taylor's and Laurent' series, Residue theorem, solution integrals.

Probability and Statistics: Sampling theorems, Conditional probability, Mean, median, mode and standard deviation, Random variables, Discrete and continuous distributions, Poisson, Normal and Binomial distribution, Correlation and regression analysis.

Fourier Series: Periodic functions, Trigonometric series, Fourier series of period 2 , Euler's formula, Functions having arbitrary period, Change of interval, Even and odd functions, Half range sine and cosine series.

Transform Theory: Laplace transform, Laplace transform of derivatives and integrals, Inverse Laplace transform, Laplace transform of periodic functions, Convolution theorem, Application to solve simple linear and simultaneous differential equations.

Fourier integral, Fourier complex transform, Fourier sine and cosine transforms and applications to simple heat transfer equations. Z – transform and its application to solve difference equations.

PAPER – 9 (APTITUDE TEST FOR MBA)

The test is aimed at evaluating the verbal ability, quantitative aptitude, logical & abstract reasoning and knowledge of current affairs. The following is a brief description of contents of the test paper.

Section A (English Language): Grammar, vocabulary, uncommon words, sentence completion, synonyms, antonyms, relationship between words & phrases and comprehension of passages.

Section B (Numerical Aptitude): Numerical calculation, arithmetic, simple algebra, geometry and trigonometry, Interpretation of graphs, charts and tables.

Section C (Thinking and Decision Making): Creative thinking, unfamiliar relationships, verbal reasoning, finding patterns trends and Assessment of figures & diagrams.

Section D (General Awareness): Knowledge of current affairs and other issues related to trade, industry, economy, sports, culture and science.

PAPER - 10 (APTITUDE TEST FOR MCA)

(i) MATHEMATICS

Modern Algebra: Idempotent law, identities, complementary laws, Demorgan's theorem, mapping, inverse relation, equivalence relation, Piano's Axiom, definition of rational numbers and integers through equivalence relation.

Algebra: Surds, solution of simultaneous and quadratic equations, arithmetic, geometric and harmonic progression, Binomial theorem for any index, logarithms, exponential and logarithmic series, determinants.

Probability: Definition, dependent and independent events, numerical problems on addition and multiplication of probability, theorems of probability.

Trigonometry: Simple identities, trigonometric equations, properties of triangles, use of mathematical

tables, solution of triangles, height and distance, inverse functions, De-Moiver's theorem.

Co-Ordinate Geometry: Co-ordinate geometry of the straight lines, pair of straight lines, circle, parabola, ellipse and hyperbola and their properties.

Calculus: Differentiation of function of functions, tangents and normal, simple examples of maxima of minima, limits of function, integration of function (by parts, by substitution and by partial fraction), definite integral (application to volumes and surfaces of frustums of sphere, cone and cylinder).

Vectors: Position vector, addition and subtraction of vectors, scalar and vector products and their applications.

Dynamics: Velocity, composition of velocity, relative velocity, acceleration, composition of acceleration, motion under gravity, projectiles, laws of motions, principles of conservation of momentum and energy, direct impact of smooth bodies, pulleys.

Statics: Composition of co-planar, concurrent and parallel forces, moments and couples, resultant of set of coplanar forces and conditions of equilibrium, determination of Centroids in simple case, problems involving friction.

(ii) STATISTICS

Theory of probability, Mean, Median, Mode, Dispersion and Standard Deviation.

(iii) LOGICAL ABILITY

Questions to test analytical and reasoning capability of candidates.

PAPER- 11 (APTITUDE TEST FOR 2nd Year MCA (Lateral Entry))

(I) MATHEMATICAL STRUCTURES

Modern Algebra and Matrices: Algebraic structures and general properties, semigroups, groups. Rings and Fields: definitions, elementary properties and standard results. Matrices, operation on matrices, Inverse and rank of a matrix, Eigen values, eigenvectors and system of linear equations.

Set Theory: Introduction, sets and cardinals, combination of sets, multi sets and set identities. Relations - definition, operations on relations, composite relations, properties of relations, partial order relations. Functions - definition, classification of functions, operations on functions, recursively defined functions.

Number Theory and Methods of Proof: Natural numbers, factorization and prime numbers, floor and ceiling functions. Methods of proof – Introduction, direct and indirect methods of proof, mathematical Induction.

Combinatorics and Probability: Introduction, counting techniques, Pigeonhole principle. Probability –definition, sample space, algebra of events, axioms of probability, prior and posterior probability, Baye's theorem.

(II) COMPUTING CONCEPTS

Principles of Computer Science: Computer organization - evaluation of computers, computer arithmetic, control design, processor design, input output organization, memory organization. Data Structures – Arrays, lists, stacks, queues. Trees and graphs - definition, properties and applications. Analysis of algorithms.

Proposition logic and Boolean Algebra: Propositions, truth tables, tautology, contradiction, algebra of propositions. Binary systems, axioms and theorems of Boolean algebra, Boolean functions and digital circuits.

Numerical Techniques: Floating point Arithmetic, solution of the system of linear equations, roots of polynomials, interpolation and curve fitting.

Theory of Computation: Finite-state machines, regular and non-regular languages, Turing machines and applications.

(III) REASONING ABILITY

Questions in this part will be aimed to assess the reasoning and logical ability of the candidates.

Appendix-B

(i) LIST OF BRANCHES OF ALL THE COURSES

NAME OF BRANCHES	BRANCH CODE	STREAM
Aeronautical Engineering	AE	B.Tech.
Agricultural Engineering	AG	B.Tech
Applied Electronics & Instrumentation	Al	B.Tech
Architecture	AR	B.Arch.
Automobile Engineering	AU	B.Tech.
Bio Chemical Engineering	BC	B.Tech
Building Engg. & Construction Technology (Architecture)	BE	B.Arch.
Bio Medical Engineering	BM	B.Tech.
Bachelor of Pharmacy	BP	B.Pharm
Bio-Technology	BT	B.Tech.
Chemical & Alcohol Technology	CA	B.Tech.
Civil Engineering	CE	B.Tech.
Chemical Engineering	СН	B.Tech.
Computer Science	СО	B.Tech.
Computer Science & Engineering	CS	B.Tech.
Computer Scienece & Information Technology	CSI	B.Tech.
Electronics & Communication Engineering	EC	B.Tech.
Electrical Engineering	EE	B.Tech.
Electronics & Instrumentation Engineering	El	B.Tech.
Electronics Engineering	EL	B.Tech.
Electrical & Electronics Engineering	EN	B.Tech.
Electronics & Telecomm Engineering	ET	B.Tech.
Electronics Instrumentation & Control	EX	B.Tech.
Environmental Engineering	EV	B.Tech.
Electronics & Computer Engineering	ECZ	B.Tech.
Electrical & Computer Engineering	EZ	B.Tech.
Fashion & Apparel Design	FD	B.FAD
Food Technology	FT	B.Tech.
Hotel Management	НМ	внмст
Instrumentation & Control	IC	B.Tech.
Interior Design (Architecture)	ID	B.Arch
Instrumentation Engineering	IN	B.Tech.
Industrial Production Engg.	IP	B.Tech.
Information Technology	IT	B.Tech.
Leather Technology	LT	B.Tech.
Mechanical Engineering	ME	B.Tech.
Manufacturing Technology	MF	B.Tech.
Man Made Fiber Technology	MM	B.Tech.

· ·

Marine Engineering	MR	B.Tech.
Material & Metallurgical Engineering	MST	B.Tech.
Metallurgical Engineering	MT	B.Tech.
Mechanical & Industrial Engineering	MX	B.Tech.
Oil Technology	ОТ	B.Tech.
Production Engineering	PE	B.Tech.
Planning (Architecture)	PA	B.Arch.
Production & Industrial Engineering	PI	B.Tech.
Plastic Technology	PL	B.Tech.
Paint Technology	PT	B.Tech.
Textile Chemistry	TC	B.Tech.
Textile Technology	TT	B.Tech.
Textile Engineering	TX	B.Tech.
Fine Arts	FA	BFA

(ii) LIST OF BRANCHES OF MBA & MCACOURSES

NAME OF BRANCHES	BRANCH CODE	STREAM
Master of Business Administration (MBA)	M1	MBA
Master of Business Administration _Business Economics	M2	MBA
Master of Business Administration Finance & Control	M3	MBA
Master of Business Administration Tourism Management	M4	MBA
Master of Business Administration International Business (IB)	M5	MBA
Master of Business Administration Financial Management (FM)	M6	MBA
Master of Business Administration_Agri. Business	M17	MBA
Master of Business Administration Marketing	M20	MBA
Master of Business Administration_E-Commerce	M21	MBA
Master of Business Administration Human Research & Development	M22	MBA
Master of Computer Applications	MCA	MCA

Appendix C

List of Institutions/Branches/Intake of UG & PG Courses

Please see the Website: http://aktu.ac.in

Appendix-D

$\mathbf{CERTIFICATE} - 1$ (प्रमाण पत्र-1)

अनुसूचित जाति/जनजाति (UPSC/UPST/GDSC/GDST)

(अभ्यर्थी के जन्म जिले के जिला मजिस्ट्रेट/प्रथम श्रेणी मजिस्ट्रेट द्वारा प्रमाणित)

यह प्रमाणित किया जाता है कि श्री / कु0	पुत्र / पुत्री श्री
निवासी गॉव/शहर तहसील	जिला
प्रदेश का जन्म	जाति में हुआ था और यह जाति अनुसूचित
जाति / जनजाति आदेश (संशोधन) एक्ट 1956 के अन्त	र्गत भारत सरकार/उत्तर प्रदेश शासन
सरकार द्वारा मान्य अनुसूचित जाति	ा / जनजाति है।
अभ्यर्थी के हस्ताक्षर	हस्ताक्षर
दिनांक	नाम
स्थान	मोहर
	जिला अधिकारी / अतिरिक्त जिला अधिकारी/
	सिटी मजिस्ट्रेट / परगना मजिस्ट्रेट / तहसीलदार
Note: Proforma of certificate shall be changed according	to latest Govt. order.

CERTIFICATE - 2 (प्रमाण पत्र-2)

उत्तर प्रदेश के अन्य पिछड़े वर्ग के लिए जाति प्रमाण पत्र का प्रपत्र (UPBC/GDBC)

यह प्रमाणित किया जाता है कि श्री/श्रीमती /	~	
श्री	निवासी ग्राम	
तहसील नगर		
कीपिछडी जाति के र्व्या		
जातियों । अनुसूचित जनजातियों तथा पिछडे वग	र्गों के लिए आरक्षण	अधिनियम, 1994 की अनुसूची — 1
के अन्तर्गत मान्यता प्राप्त है।		
यह भी प्रमाणित किया जाता है कि श्री/श्रीमती,		
अधिनियम 1994 की अनुसूची —2 (अधिसूचना		2—का 02 / 1995 टी0 सी0 दिनांक
8 दिसम्बर, 1995 द्वारा यथा संशोधित) से आच्छा	दित नहीं है।	
श्री / श्रीमती / कुमारी		
ग्रामर	नगर	जिला
में सामान्यतया रहता है।		
अभ्यर्थी के हस्ताक्षर	हस्ताक्षर	
दिनांक	नाम	
Ke	थान	
म	ोहर	
	जिला अधिका	री / अतिरिक्त जिला अधिकारी/
	सिटी मजिस्ट्रे	ट / परगना मजिस्ट्रेट / तहसीलदार

नोट— अभ्यर्थी ध्यान दें कि उ०प्र० के अन्य पिछड़े वर्ग के लिए जाति प्रमाण अप्रैल 01, 2018 के पश्चात का बना हुआ होना आवश्यक है क्योंकि कीमीलेयर के अन्तर्गत आने वाले अभ्यर्थियों को आरक्षण का लाभ अनुमन्य नहीं है।

$\mathbf{CERTIFICATE} - 3$ (प्रमाण पत्र-3)

उत्तर प्रदेश के मूल/सामान्य निवासी के पुत्र/पुत्री (UPGD/GDSC/GDST/GDBC) (उस जिले के अधिकारी द्वारा प्रमाणित जिस जिले के माता/पिता निवासी है)

यह प्रमाणित किया जाता है कि श्री / श्रीमती (अभ्यर्थी के पित	ता/माता का नाम)
पिता / माता श्री / कुo(अभ्यर्थी क ा नाम)	उत्तर प्रदेश के
गाँव / शहर तहसील	के मूल
निवासी हैं तथा श्री / कु० (अभ्यर्थी का नाम)	अपने पिता / माता पर
पूर्णतया आश्रित हैं। उक्त पते पर श्री / कु0 (अभ्यर्थी का ना	ाम)के
माता / पिता सामान्यतः निवास करते हैं।	
दिनांक	हस्ताक्षर जिला मजिस्ट्रेट
स्थान	पूरा नाम
	पदनाम
	मुहर (जिला मजिस्ट्रेट की सील)
जिला मजिस्ट्रेट अथवा जिला मजिस्ट्रेट द्वारा अधिकृत अपर 1 प्रमाण पत्र ही मान्य होंगे जो शा0आ0 सं0—157 / तीन —20 अधीन जारी किया जायेगा।	
नोट— प्रमाण पत्र—3 अभ्यर्थी के माता / पिता का बना हो परीक्षा उत्तर प्रदेश के बाहर स्थित किसी विद्यालय से उत प्रदेश के मूल / स्थाई निवासी हैं परीक्षा में बैठने के पात्र हैं।	
CERTIFICATE – 4 (प्रमाण पत्र–4)	,
उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतं सैनिकों के लिए आरक्षण) अधिनियम, 1993 के अनुसार स्वतः	त्रिता संग्राम सेनानी के आश्रितों और भूतपूर्व
उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतं सैनिकों के लिए आरक्षण) अधिनियम, 1993 के अनुसार स्वतः का प्रपत्र	त्रिता संग्राम सेनानी के आश्रितों और भूतपूर्व न्त्रता संग्राम सेनानी के आश्रित के प्रमाण पत्र
उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतं सैनिकों के लिए आरक्षण) अधिनियम, 1993 के अनुसार स्वतः का प्रपत्र प्रमाणित किया जाता है कि श्री/श्रीमती (स्वतंत्रता संग्राम	त्रता संग्राम सेनानी के आश्रितों और भूतपूर्व न्त्रता संग्राम सेनानी के आश्रित के प्रमाण पत्र सेनानी का नाम)
उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतं सैनिकों के लिए आरक्षण) अधिनियम, 1993 के अनुसार स्वतः का प्रपत्र प्रमाणित किया जाता है कि श्री/श्रीमती (स्वतंत्रता संग्राम निवासी ग्रामतहसील	त्रता संग्राम सेनानी के आश्रितों और भूतपूर्व न्त्रता संग्राम सेनानी के आश्रित के प्रमाण पत्र सेनानी का नाम)
उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतं सैनिकों के लिए आरक्षण) अधिनियम, 1993 के अनुसार स्वतः का प्रपत्र प्रमाणित किया जाता है कि श्री/श्रीमती (स्वतंत्रता संग्राम निवासी ग्रामतहसील जिला जेता सेवा (शारीरि	त्रता संग्राम सेनानी के आश्रितों और भूतपूर्व न्त्रता संग्राम सेनानी के आश्रित के प्रमाण पत्र सेनानी का नाम) नगर रेक रूप से विकलांग, स्वतंत्रता संग्राम सेनानी
उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतं सैनिकों के लिए आरक्षण) अधिनियम, 1993 के अनुसार स्वतः का प्रपत्र प्रमाणित किया जाता है कि श्री/श्रीमती (स्वतंत्रता संग्राम निवासी ग्रामतहसीलतहसील जिला उत्तर प्रदेश लोक सेवा (शारीरि के आश्रितों और भूतपूर्व सैनिकों के लिए आरक्षण) अधिनियम	त्रता संग्राम सेनानी के आश्रितों और भूतपूर्व न्त्रता संग्राम सेनानी के आश्रित के प्रमाण पत्र सेनानी का नाम) नगर रेक रूप से विकलांग, स्वतंत्रता संग्राम सेनानी 1993 के अनुसार स्वतन्त्रता संग्राम सेनानी हैं
उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतं सैनिकों के लिए आरक्षण) अधिनियम, 1993 के अनुसार स्वतः का प्रपत्र प्रमाणित किया जाता है कि श्री/श्रीमती (स्वतंत्रता संग्राम निवासी ग्रामतहसीलतहसील जिला उत्तर प्रदेश लोक सेवा (शारीरि के आश्रितों और भूतपूर्व सैनिकों के लिए आरक्षण) अधिनियम और श्री/श्रीमती/कु0(आश्रित अभ्यर्थी का नाम)	त्रता संग्राम सेनानी के आश्रितों और भूतपूर्व न्त्रता संग्राम सेनानी के आश्रित के प्रमाण पत्र सेनानी का नाम) नगर रेक रूप से विकलांग, स्वतंत्रता संग्राम सेनानी 1993 के अनुसार स्वतन्त्रता संग्राम सेनानी हैं
उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतं सैनिकों के लिए आरक्षण) अधिनियम, 1993 के अनुसार स्वतः का प्रपत्र प्रमाणित किया जाता है कि श्री/श्रीमती (स्वतंत्रता संग्राम निवासी ग्रामतहसील जिला उत्तर प्रदेश लोक सेवा (शारीरि के आश्रितों और भूतपूर्व सैनिकों के लिए आरक्षण) अधिनियम और श्री/श्रीमती/कु0(आश्रित अभ्यर्थी का नाम) पुत्र/पुत्री/पौत्र/अविवाहित पौत्री उपरांकित अधिनियम,	त्रता संग्राम सेनानी के आश्रितों और भूतपूर्व न्त्रता संग्राम सेनानी के आश्रित के प्रमाण पत्र सेनानी का नाम) नगर रेक रूप से विकलांग, स्वतंत्रता संग्राम सेनानी 1993 के अनुसार स्वतन्त्रता संग्राम सेनानी हैं)
उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतं सैनिकों के लिए आरक्षण) अधिनियम, 1993 के अनुसार स्वतः का प्रपत्र प्रमाणित किया जाता है कि श्री/श्रीमती (स्वतंत्रता संग्राम निवासी ग्राम	त्रिता संग्राम सेनानी के आश्रितों और भूतपूर्व न्त्रता संग्राम सेनानी के आश्रित के प्रमाण पत्र सेनानी का नाम) नगर रेक रूप से विकलांग, स्वतंत्रता संग्राम सेनानी 1993 के अनुसार स्वतन्त्रता संग्राम सेनानी हैं) 1993 के ही प्रावधानों के अनुसार उक्त के आश्रित हैं।
उत्तर प्रदेश लोक सेवा (शारीरिक रूप से विकलांग, स्वतं सैनिकों के लिए आरक्षण) अधिनियम, 1993 के अनुसार स्वतः का प्रपत्र प्रमाणित किया जाता है कि श्री/श्रीमती (स्वतंत्रता संग्राम निवासी ग्रामतहसील जिला उत्तर प्रदेश लोक सेवा (शारीरि के आश्रितों और भूतपूर्व सैनिकों के लिए आरक्षण) अधिनियम और श्री/श्रीमती/कु0(आश्रित अभ्यर्थी का नाम) पुत्र/पुत्री/पौत्र/अविवाहित पौत्री उपरांकित अधिनियम,	त्रता संग्राम सेनानी के आश्रितों और भूतपूर्व न्त्रता संग्राम सेनानी के आश्रित के प्रमाण पत्र सेनानी का नाम) नगर रेक रूप से विकलांग, स्वतंत्रता संग्राम सेनानी 1993 के अनुसार स्वतन्त्रता संग्राम सेनानी हैं)

Note: Proforma of certificate may be changed according to latest Govt. order.

CERTIFICATE – 5 (प्रमाण पत्र–5) उत्तर प्रदेश / सेना दल (Sub-Category UPAF) (अंतिम यूनिट के आफिसर कमान्डिंग / जिला सैनिक कल्याण बोर्ड द्वारा प्रमाणित)

0 0 40 0 0 0 1 11 11	•
यह प्रमाणित किया जाता है कि श्री / श्रीमती (अभ्यर्थी के	
.निवासी गॉव/शहर तहसीव	
उत्तर प्रदेश, के दिनांकको सेवा नि	ावृत्त (Superannuated) युद्ध में मारे गये / अपंग
हो गये / उत्तर प्रदेश में वर्तमान में तैनात है। वे भारतीय	थलसेना/जलसेना/वायुसेना के स्थान
से दिनांक	तक कार्यरत थे / हैं।
दिनांक	यूनिट कमान्डिंग आफिसर के हस्ताक्षर
स्थान	नाम
	मोहर
(0	
(जिला माजस्य	हेट द्वारा प्रमाणित)
यह प्रमाणित किया जाता है कि श्री / कु०(अभ्यर्थी)	
उत्तर प्रदेश गाँव/शहरतहसील	
सेना दल के सेवा निवृत्त (Superannuated) युद्ध में म	
के स्थायी निवासी हैं/थे, के पुत्र/पुत्री हैं अथवा प्र	वेश परीक्षा की तिथि को उत्तर प्रदेश भारतीय
थलसेना / जल सेना / वायुसेना में कार्यरत थे / हैं।	
दिनांक	हस्ताक्षर
स्थान	नाम
	मोहर
CERTIFICATE – 6 (प्रमाण पत्र	1–6) (Sub-Category UPHC)
	,
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर	त्र (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित)
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री/कु0(अभ्यर्थ	त्र (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित) f)पुत्र / पुत्री
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कु०(अभ्यर्थ श्री (पिता का नाम)	त्र (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित) f)पुत्र / पुत्री
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कु०(अभ्यर्थ श्री (पिता का नाम) हैं।	त्र (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित) ह्री)पुत्र / पुत्रीनीचे लिखे कारणों से शारीरिक रूप से विकलांग
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कु०(अभ्यर्थ श्री (पिता का नाम)	त्र (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित) ह्री)पुत्र / पुत्रीनीचे लिखे कारणों से शारीरिक रूप से विकलांग
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कु०(अभ्यर्थ श्री (पिता का नाम) हैं।	त्र (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित) ही)पुत्र / पुत्री नीचे लिखे कारणों से शारीरिक रूप से विकलांग
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कु०(अभ्यर्थ श्री (पिता का नाम) हैं। (केवल मुख्य चिकित्सा अधिकारी ही कारण लिखें) 2. अभ्यर्थी की उपरोक्त विकलांगता को निम्न प्रकार के (कृपया √ का निशान लगायें)	त्र (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित))पुत्र / पुत्रीनीचे लिखे कारणों से शारीरिक रूप से विकलांग ो विकलांगता की श्रेणी में रखा जा सकता है।
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कु०(अभ्यर्थ श्री (पिता का नाम) हैं। (केवल मुख्य चिकित्सा अधिकारी ही कारण लिखें) 2. अभ्यर्थी की उपरोक्त विकलांगता को निम्न प्रकार के (कृपया ✓ का निशान लगायें) Type - I: Minimum 40% permanent Vis Type-II: Minimum 40% permanent Loc	त्र (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित) त)पुत्र / पुत्रीनीचे लिखे कारणों से शारीरिक रूप से विकलांग विकलांगता की श्रेणी में रखा जा सकता है। ual impairment omoter disability
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कु०(अभ्यर्थ श्री (पिता का नाम)	त्र (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित) त)पुत्र / पुत्रीनीचे लिखे कारणों से शारीरिक रूप से विकलांग विकलांगता की श्रेणी में रखा जा सकता है। ual impairment omoter disability
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कु०(अभ्यर्थ श्री (पिता का नाम)	प्रिख्य चिकित्सा अधिकारी द्वारा प्रमाणित) (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित)
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कुo(अभ्यर्थ श्री (पिता का नाम)	प्रिख्य चिकित्सा अधिकारी द्वारा प्रमाणित) (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित)
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कु०(अभ्यर्थ श्री (पिता का नाम)	प्रिख्य चिकित्सा अधिकारी द्वारा प्रमाणित) (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित)
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कु0(अभ्यर्थ श्री (पिता का नाम)	त्र (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित))
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कुo(अभ्यर्थ श्री (पिता का नाम)	प्रिख्य चिकित्सा अधिकारी द्वारा प्रमाणित) (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित)
शारीरिक विकलांग के अधिमान के लिए प्रमाण पर 1- यह प्रमाणित किया जाता है कि श्री / कु०(अभ्यर्थ श्री (पिता का नाम)	त्र (मुख्य चिकित्सा अधिकारी द्वारा प्रमाणित) त)

CERTIFICATE – 7 (प्रमाण पत्र–7) उत्तर प्रदेश ग्रामीण क्षेत्र के लिये अधिमान (UPGE) (कालेज के प्रधानाचार्य द्वारा प्रमाणित)

यह प्रमाणित	किया जाता है कि	श्री / कु०(अभ्यर्थी)		ने		
	कालेज गॉव	ī	से इण	टरमीडिएट की ी	शिक्षा प्राप्त व	ती ।
यह कालेज त	तहसील	जिला		उत्तर प्रदेश	के ग्रामीण १	क्षेत्र
) हे कार्य क्षेत्र के सीमा व				
नहीं है।						
	दिनांक		हस्ताक्षर			
	स्थान		नाम			
		ाद्यालय निरीक्षक एवं जि	्रमुहर	•		
दिनांव स्थान दिनांव स्थान	क CHARAG	नाम मुहर प्रति ह नाम मुहर CERTIFICATE CTER CERTIFICATE HE INSTITUTION I	E FROM THE H	ਗਿਵੇ੍ਟ ⊼−8) EAD OF		
This is to cert	afy that Sri / Km been	a	bonafide	student		of
from				_		to
	-	and				10
has	passes	/	appeared	at	1	the
examination is	n the year					
2. Has he / sh3. Has he / sh4. Has he / sh5. Has he / shGeneral remainsDate:	ne involved himself ne been warned, Fin ne been restricted on ne been involved in nes or fraction fights ne been addicted to	drugs or intoxicants? your assessment of the	nct of indiscipline? f College for any re ide the College cam		Yes / No Yes / No Yes / No Yes / No Yes / No	
Nam	ne					
			Design	ation		

CERTIFICATE – 9 (प्रमाण पत्र–9) * FORMAT FOR MEDICAL CERTIFICATE

(To be obtained from a Chief Medical Officer or Medical Officer of a participating U.P. State Funded Engg. Institute) This certificate has to be submited at the time of admission in the college allotted.

Name	of Candidate:				Age:	Sex:
UPSE	E-2017 Roll No.	:	Category:		Subcate	egory & Weighatge:
State I	Rank Position:		Father's	Name:		
		(To be fille	d in by the Candi	idate)		
L.T.	M.I.				Colour V	vision:
Heigh	t Weight	Chest	Abdomen	VisioN	Without	glass:
Heigh	t Weight	Chest	Audomen	VIS	With glas	ss:
Histor	у	Operation	Kockh's	1	Colics	B.P.
		Seizures	Asthma		Piles	Diabetes
Е	Pulse	Tons		DNS	1 1103	Hernia
X	T uise	10113	11	DIND		Hermu
A M	Pallor	L.No	des	CSOM		Hydrocele
I N	Cardiovascular			CNS		
A T						
I	Respiratory			GIT		
O N						
	Genitourinary			Others		
	candidate physica		ed/Disabl	`	se tick)	Yes / No
-	type of handicap	o/disability:		Ty	pe -I: Mini	mum 40% permanent Visual
impair	ment					
(Pleas	e trick √ the type	of handicap/o	disabilty)	Type-I	I: Minimur	n 40% permanent Locomoter
disabil	lity					
				Type-l	III: Minimu	ım 40% permanent speech
and					Hea	aring impairment
Any o	ther finding:					
Certifi	ed that the candid	date is physica	ally fit/unfit/tempo	rally disq	ualified to p	pursue engineering studies
Signat	ure of Candidate		Signa	ture of the	issuing M	ledical Officer (with Offical

stamp)

CERTIFICATE – **10** (प्रमाण पत्र–10)

UNDERTAKING BY CANDIDATE FOR MEDICAL FITNESS

I certify that I have no such physical handicap/disability which would hinder the pursuit of studies in the courses in which I am seeking admission. If at stage it is found that I have a physical handicap/ disability which would hinder the pursuit of studies in the courses in which I am seeking admission then my admission will be liable to be cancelled. I will produce medical fitness certificate from a C.M.O./C.M.S. at the time of my joining the institution allotted by UPSEE-2017 counselling.

Dated: Counter Signed by Father / Guardian Signature of the Candidate

CERTIFICATE – 11 (प्रमाण पत्र–11)

अखिल भारतीय सेवा के उ०प्र० कैंडर के अधिकारियों / कर्मचारियों हेतु

प्रमाणित किया जाता है कि श्री / श्रीमती (अभ्यर्थी के माता / पित	ता का नाम)	
पदनामविभाग का नाम	कैडर संख्या	
अखिल भारतीय सेवा के उ०प्र० कैडर के अधिकारी/कर्मच	चारी है तथा वर्तमान में इस कार्याल	य में
कार्यरत हैं। यह प्रमाण पत्र इनके पुत्र/पुत्री (अभ्यर्थी का नाम		को
डा० ए०पी०जे० अब्दुल कलाम प्राविधिक विश्वविद्यालय उत्तर प्र	ग्देश, लखनऊ के अन्तर्गत प्रवेश हेतु !	र्रदान
किया जाता है।		
दिनांकः		
हस्ताक्षर	विभागाध्यक्ष / कार्यालयाध्यक्ष	का
CANAL	नाम एवं पदनाम	
	मुहर 	_
CERTIFICATE-12 (7 (Income Certific	•	
क्षेत्रीय भूलेख निरीक्षक तथा लेखपाल की जांच रिपोर्ट व	के आधार पर प्रमाणित किया जाता है	कि
(आवेदक व	के अभिभावक / माता / पिता का नाम)	सुपुत्र
निवार	सी / ग्राम प	रगना
तहसील	— नगर ——— र्	जेला
राज्य	-– के स्वयं की मासिक आय र	जपया
तथा वार्षिक आय रूपया	है।	
लेखपाल की रिपोर्ट के अनुसार आय का स्रोत	है।	
स्थानः		
दिनांक:	तहसीलदार	
	मुहर	

नोट— अभ्यर्थी ध्यान दें कि उ०प्र० के आर्थिक रूप से कमजोर अभ्यर्थियों के लिए प्रमाण पत्र अप्रैल 01, 2018 के पश्चात का बना हुआ होना आवश्यक है।

The UPSEE-2018 will be held at various cities as given in the following tables. The candidates are advised to give three choices of examination cities.

- (i) Paper 1, Paper 2, Paper 3 and Paper 4 are OMR based Tests and shall be held in various cities given in the Examination City Table-I
- (ii) Paper 5, Paper 6, Paper 7, Paper 8, Paper 9, Paper 10, and Paper 11 are Computer based Tests and shall be held in various cities given in the Examination City Table-II.

Examination City Table-I (OMR Based Test) [For Paper 1, Paper 2, Paper 3 and Paper 4]

Cities in State of	17. Sultanpur	34. Mirzapur
U.P.	18. Deoria	35. Bijnor
1. Agra	19. Gorakhpur	36. Moradabad
2. Firozabad	20. Kushinagar	37. Muzaffarnagar
3. Mathura	21. Jalaun (Orai)	38. Saharanpur
4. Aligarh	22. Jhansi	39. Ghazipur
5. Allahabad	23. Etawah24. Kanpur Nagar	40. Jaunpur 41. Varanasi
6. Azamgarh	24. Kanpur Nagar 25. Kanpur Dehat	41. Varanasi
7. Ballia	26. Lakhimpur Kheri	
8. Mau	27. Lucknow	Cities in Other States
9. Bareilly		42. Bhopal
10. Shahjahanpur	28. Raebareli	43. Dehradun
11. Basti	29. Sitapur	44. Delhi
12. Banda	30. Bulandshahr	45. Patna
13. Gonda	31. Gautam Buddha Nagar (Noida/Greater Noida)	46. Ranchi
14. Ambedkar Nagar	32. Ghaziabad	47. Jaipur
15. Barabanki	33. Meerut	48. Kolkata
16. Faizabad		49. Mumbai

Examination City Table-II (Computer Based Test)

[For Paper 5, Paper 6, Paper 7, Paper 8, Paper 9, Paper 10, and Paper 11]

1. Agra	7. Ghaziabad	12. Lucknow
2. Aligarh	8. Gorakhpur	13. Mathura
3. Allahabad	9. Gautam Buddha Nagar	14. Meerut
4. Ambedkar nagar	(Noida / Greater Noida)	15. Moradabad
5. Bareilly	10. Jhansi	16. Muzaffarnagar
6. Bijnaur	11. Kanpur	17. Varanasi

(iii) Candidates are advised to be very careful while giving their options for city of examination centre. Candidates are advised to choose cities of examination on the basis of the paper he/she has opted from the respective tables i.e Examination City Table-I and/or Examination City Table-II.

- (iv) In case, candidate has opted papers in such a manner that some of these papers are the OMR based Tests (Paper 1, Paper 2, Paper 3 and Paper 4) and some of these papers are Computer based Tests (Paper 5, Paper 6, Paper 7, Paper 8, Paper 9, Paper 10 and Paper 11), the choices for citiy of examination must be chosen from the Examination City Table-II only.

 For example,
 - (a) If a candidate opts for Paper 1 only, he/she should to refer to the Examination City Table-I.
 - (b) If a candidate opts for Paper 5 only, he/she should refer to the Examination City Table-II.
 - (c) If a candidate opts for two papers Paper 1 and Paper 5, he/ she should refer to the Examination City Table-II.
- (v) If any candidate choses cities of examination where the examination for the paper opted is not being conducted, he/she shall be allotted an examination city from the respective list and same shall be binding upon the candidate.
- (vi) Certain examination cities may be cancelled if sufficient number of candidates does not opt for that city. Request for change of city of examination shall not be entertained under any circumstances.

Appendix-F

अनुसूचित जाति, अनुसूचित जनजाति एवं ओ०बी०सी० जातियों कं नाम

The list of SC/ST/OBC categories shall be as notified by the Government of Uttar Pradesh as applicable on the day of counselling / admission.

The benefit of reserved categories/ subcategories/ rural weightage shall be admissible only upon submission of the required certificate in the format as given in Appendix-D.

IMPORTANT DATES

Opening of the link for Filling and Submission of On-Line Application Form form through the website http://www.upsee.nic.in	January 23, 2018 (11.00 AM)		
Last Date for Filling and submitting the On-Line Application Form	March 15, 2018 (5.00 PM)		
On-Line Partial Correction of filled and submitted On Line Application form through the website http://www.upsee.nic.in	Upto April 05, 2018 (5:00Pm)		
Opening of Link for Downloading of the Admit Card from the website http://www.upsee.nic.in	From April 20, 2018,11.00 AM till date of examination		
Dates of Examination (as applicable)	April 29, 2018 May 05, 2018 and May 06, 2018 for Various Courses		
Declaration of UPSEE-2018 Result	In the First week of June 2018		
Note:			
☐ The Application Form can be filled On-Line only through the website http://www.upsee.nic.in			
☐ The Confirmation page printed after submission of On-Line Application Form need to be preserved by the candidates. Print-out/ hard copy/ photocopy of Confirmation page or any other document need not be sent to the University.			
☐ The Admit Card shall be available to the candidates only through the website http://www.upsee.nic.in			

SCHEDULE OF EXAMINATION

Date of Examination	Paper Code	Subjects	Timing (Total Time Period)
29 th April, 2018 (Sunday)	Paper 1	Physics, Chemistry and Mathematics	
	Paper 2	Physics, Chemistry and Biology	10:00 AM to 1:00 PM (3 Hours)
	Paper 3	AG-I, AG-II and AG-III	
	Paper 4	Aptitude Test for Architecture	3.00 PM to 5:30 PM (2 Hours 30 Minutes)
5 th May, 2018 (Saturday)	Paper 5	Aptitude test for General Awareness (BHMCT/BFAD/BFA/MBA(Intg)	10:00 AM to 11:30 AM (1 Hour 30 Minutes)
	Paper 6	Aptitude Test for Diploma Holders in Engg.	
	Paper 7	Aptitude Test for Diploma Holders in Pharmacy	2:30 PM to 4:00 PM (1 Hour 30 Minutes)
	Paper 8	Aptitude Test for B.Sc. Graduates	
6 th May, 2018 (Sunday)	Paper 09	Aptitude Test for MBA	9:00 AM – 11:00 AM (2 Hours)
	Paper 10	Aptitude Test for MCA	1:00 PM – 3:00 PM (2 Hours)
	Paper 11	Aptitude Test for 2 nd Year MCA (Lateral Entry)	4:00 PM -6:00 PM (2 Hours)