

Faculty of Engineering & Technology

Advance Diploma in Food Tech. (ADFT) / Advance Diploma in Environmental Engineering (ADEE)

General Awareness :

General knowledge and developments in the Cultural, Sports, Political, Social and technological fields both in the India and International context, Awareness about general environmental issues and life sciences, basis of biology, Aligarh movement and role of Sir Syed Ahmed Khan, Urdu literature and posts.

Physics :

Units and its measurement, Kinematics, Laws of Motion, Work, energy and power, Motion of system of particles and Rigid Body, Gravitation, Properties of Bulk Matter, Thermodynamics, Behaviour of Perfect Gas and kinetic Theory, Electricity, Nature of Matter and Radiation, Scalar and vector quantities, Postulates of kinetic theory of gases, Specific heat of gases, concept of heat and temperature, Zeroth law of thermodynamics, First law of thermodynamics and second law of thermodynamics.

Chemistry :

Structure of Atom, Classification of elements, Chemical bonding, Molecular Structure, States of matter, Solutions, Equilibrium, Redox reactions, electrochemistry, Chemical Kinetics, Surface Chemistry, Hydrogen, atom and ion, ionization and dissociation, electrolysis, Hydrogen ion concentration, Ionic product of water, concept, of pH₂ types of hardness in water, methods of removing hardness, corrosion, classification of fuels, properties and calorific value of fuels, green-house effect and global warming, ozone depletion, acid rain, air pollution, water pollution, solid waste.

Mathematics :

Sets and Functions, Relations and Functions, Trigonometry, Algebra, Quadratic Equations, Permutations and combinations, Probability, Coordinate Geometry, Straight Lines, Mathematical Reasoning, Simple differentiation and integration, Mensuration, area and volume of various bodies.

General Engineering

Conversion of units, measurement, Concept of calibration, Calculation of work and heat for systems and control volumes; air standard cycles; mechanism of heat transfer fundamentals of conduction, convection and radiation, Types of energy,, Conservation of energy.