



ঢাকা প্রকৌশল ও প্রযুক্তি বিশ্ববিদ্যালয়, গাজীপুর

গাজীপুর-১৭০৭

স্মারক নং-৩৭.০১.৩৩০৪.১৫৩.০৬.০৭৩.২০২৩-২০৩৬

তারিখ : ২৬/০৪/২০২৬ খ্রি:।

অফিস আদেশ

গত ০৫/০৪/২০২৬ খ্রি: তারিখে অনুষ্ঠিত একাডেমিক কাউন্সিলের ৮৯তম সভার সিদ্ধান্ত মোতাবেক অত্র বিশ্ববিদ্যালয়ের আন্ডারগ্রাজুয়েট প্রোগ্রামের ভর্তি পরীক্ষা ২০২৬ (সেশন ২০২৫-২০২৬) এর Syllabus নিম্নরূপে অনুমোদনের সিদ্ধান্ত গৃহীত হয়।

Syllabus for Admission Test 2025-2026

[For all disciplines]

First Paper

Physics

Syllabus

Measurement & Vector Quantities: Principle of measurement, quantities & units, dimensions of units, scalar & vector quantities, vector representation, addition, subtraction & resolutions of vectors, laws of triangle, dot & cross products.

Motion and Force: Classification of motion, displacement, speed, velocity, acceleration, retardation, projectile motion, equation of motion of a projectile, angular velocity & linear velocity, centripetal and centrifugal force, laws of falling bodies, force, Newton's laws of motion, resultant of parallel forces, inertia & momentum, principles of conservation of momentum, friction, co-efficient of static friction, angle of repose, merits and demerits of friction, Kepler's law, gravity & gravitation, gravitational constant (G), acceleration due to gravity (g), mass & weight, gravitational potential & escape velocity

Work, Power & Energy: Work, power & energy, principle of the conservation of energy, potential energy (PE) & kinetic energy (KE), efficiency.

Properties of Matter: General and special properties of matter, elasticity & elastic limit, perfectly elastic body & perfectly rigid body, stress & strain, Hook's law, various kinds of modulus of elasticity, Poisson's ratio, pressure, characteristics of liquid pressure, surface tension & surface energy, angle of contact, capillarity & theory of capillarity, viscosity & co-efficient of viscosity.

Oscillations, Waves & Sound: Periodic and simple harmonic motion (SHM), characteristics of SHM, simple pendulum & second pendulum, effective length, amplitude, phase, complete oscillation, period of oscillation, frequency, laws of simple pendulum, wave motion, transverse & longitudinal waves, progressive & stationary waves, sound & production of sound, interference of sound: constructive and destructive interference, beats and mechanism of formation of beats, infrasonic & ultrasonic (supersonic) sound, velocity of sound, compare the effects of pressure, temperature & humidity on the velocity of sound.

Heat & Thermodynamics: Heat & temperature, Celsius scale of temperature, mercury thermometer, specific heat capacity, thermal capacity, principle of calorimetry, specific latent heat, latent heat of fusion of ice & vaporization of water, specific heat of a solid, effect of heat on dimension of materials, differential expansion in bimetallic strip & thermostat, units co-efficient of linear, superficial and cubical expansion of solids, real and apparent expansion of liquid, methods of heat transfer by conduction, convection & radiation, thermal conductivity (K) & coefficient of thermal conductivity, quantity of heat (Q) flowing through a material, laws of thermodynamics, isothermal and adiabatic change, specific heat of a gas, molar specific heat or molar heat capacity, reversible process and irreversible process, Carnot's cycle, efficiency of a Carnot's engine, entropy.

Light: Mirror (plane & spherical), image (real & virtual) & magnification, reflection of light, laws of reflection of light, pole, principal axis, center of curvature, radius of curvature, principal focus in case of concave & convex mirrors, general equation of concave and convex mirror, refraction of light, absolute and relative refractive index, total internal reflection & critical angle, refraction of light through a prism, minimum deviation & angle of the prism, lens & uses of lens, general equation of lens (Concave & convex), Power of a Lens.

Modern Physics: Atom models and atomic structure, X-ray, photo electric effect, Einstein's photo electric equation, radio-activity, radio-active decay law, half-life & mean-life of radio-active atoms, nuclear fission and fusion, Space, time & Mass, rest mass, theory of relativity, special theory of relativity and its fundamental postulate, different kinds of theory of relativity, length contraction, time dilation, Einstein's mass-energy relation.

Chemistry (First Paper)

Syllabus

States of matter: Basic properties of gases, Boyle's law & Charles's law, absolute temperature (S.T.P /N.T. P), combination of gas laws ($PV = nRT$), Dalton's law of partial pressure, problems related to pressure, volume, temperature and partial pressure for gaseous mixtures, Avogadro's hypothesis and constant.

Solution: Ways of expressing concentration: Molarity, molality, normality, solutions and suspensions, Solubility of completely miscible liquids, azeotropes and fractional distillation.

Catalyst & Catalysis: Types, criterion and important industrial applications (NH_3 , H_2SO_4 , Vanaspati Ghee production) and catalyst poison.

Acid, base and pH: Modern concept of acid and base, properties of acid and base, pH scale and its uses, buffer solutions, acid-base titration, indicators and their uses.

Electrolysis: Electrical conductor, electrolyte, electrolysis process, electro-plating, galvanization, Faraday's laws of electrolysis and industrial applications of electrolysis.

Atomic structure: Molecular mass, atomic number, mass number, mole and fundamental particle of atom, isotope, isobar and isotone, orbit and orbital, Rutherford's and Bohr's atomic model, quantum number, electronic configuration based on Aufbau principle, Hund's rule and Pauli's exclusion principle.

Periodic Table: Introduction to modern periodic table and classification of elements, periodic change of properties of elements, oxides and hydroxides.

Matter and its changes: Matter, element, compound, mixtures, different types of reaction (exothermic and endothermic reactions), symbol and formula, valency of elements and radicals.

Oxidation and Reduction: Modern concepts of oxidation and reduction, oxidizing agent and reducing agents, oxidation number and oxidation state.

Chemical bond: Different types of bonds: Ionic bond, covalent bond, polar covalent bond, co-ordinate bond, hydrogen bond.

Water treatment: Hard and soft water, their advantages and disadvantages, temporary and permanent hardness of water.

Important ores of Iron, Copper, Aluminum and Zinc: (i) ores (ii) roasting (iii) calcination (iv) smelting (v) alloy (vi) slag, (vii) Flux, important ores of Iron, Copper, Aluminum and Zinc, manufacturing process of iron and copper from its ore, and the properties of (i) Cast Iron (ii) Iron (iii) Steel (iv) Wrought Iron.

Organic Chemistry: Difference between organic and inorganic compounds, homologous series and functional groups of organic compounds.

Hydrocarbons: Saturated and unsaturated hydrocarbons, general method for preparation and properties of alkane, alkene and alkynes as well as their IUPAC nomenclature system.

Alcohol: Classification of alcohol, Fermentation process of ethanol preparation, Enzyme, methylated spirit, power alcohol and absolute alcohol.

Mathematics

Syllabus

Algebra: Polynomial, Complex numbers, Permutation, Combination, Binomial theorem, Determinants and Matrix.

Trigonometry: Ratios of associated and compound angles, Transformation of formulae, Multiple angles, Properties and solution of triangles and Inverse circular functions.

Co-ordinate Geometry: Co-ordinates of points, Locus and its equations, Straight lines, Circles, Parabola and Ellipse.

Differential and Integral Calculus: Functions, Graph of a function, Limits, Continuity, Differentiation, Successive differentiation with Leibnitz's theorem, Partial differentiation, Integration by substitution, Integration by parts, Partial fractions and Definite integrals.

English

Syllabus

Uses of Tense: Right form of verbs, correction of errors, subject-verb agreement in sentences, functional use of all kinds of tense.

Sentence Structure: Types of clauses and sentences, changing sentence according to the direction mentioned in brackets, completing sentences with given inputs (phrases, linking words, conjunctions etc.)

Parts of Speech: Identifying the usage of different types of parts of speech according to their place and function in a sentence.

Use of Preposition: Appropriate use of preposition, use of phrasal prepositions.

Idioms and Phrases: Usage of idioms and phrases in written and verbal communication providing accurate meaning.

Voice: Change of voice from active to passive and vice versa.

English Vocabulary: Synonyms, antonyms, homophones, homographs, and homonyms.

Reading: Reading comprehension

Verbal: Functional use of the main verb, gerund, infinitive, modals, participles.

Translation: Translation from Bengali to English and vice versa.

Punctuation and Capitalization: Use of punctuation marks and capital letters appropriately in the sentence.

Syllabus for Admission Test 2025-2026 Second Paper (Technical Subjects)

CE

Syllabus

Engineering Materials: Bricks and blocks; Aggregates; Cement; Mortars (Lime and Cement); Concrete; Timber; Geotextiles; Bitumen.

Surveying: Chain surveying; Plane table surveying; Leveling and contouring; Traversing; Theodolite surveying.

Structural Mechanics: Force systems; Equilibrium and free-body diagrams; Friction; Centroid and center of gravity; Moment of inertia; Work, power and energy.

Strength of Materials: Stresses and strains; Mechanical properties of materials; Bending moment and shear force diagrams; Flexural and shear stresses; Deflection.

Hydraulics: Fluid pressure; Hydrostatic force; Flow measurement; Pipe friction and flow through pipe.

Soil Mechanics: Phase relationship and index properties of soil; Permeability and seepage; Moisture-density relationship of soil.

Reinforced Cement Concrete (RCC): Materials of RCC and their properties; Design of beams, one-way slabs, axially loaded columns, wall and individual column footings.

Estimating and Construction Process: Estimating of earthwork, brick work, mortar and concrete in foundations and superstructures; Construction process of foundations, masonry works, damp proof course; Formworks and Paintings.

EEE
Syllabus
<p>Electrical Circuits: Basic electrical elements and quantities, Circuit Laws and Theorems, Mesh and Node analysis, Capacitors and Inductors, Fundamental of AC Circuit, Single phase and balanced polyphaser, AC circuit analysis, Star-delta connection and conversion, Power and Power Factor, Resonance.</p> <p>Electrical Machine: D. C. Generator: Principles, Construction, Types, Voltage build up; Generator characteristics, Performance and testing. D. C. Motor: Construction, Operation, Types, Characteristics, Back e.m.f, Torque equations, Speed regulation, Power stages. Transformer: Construction, Principles, Operations, Equivalent circuits, Performance and testing, Regulation, Losses and efficiency.</p> <p>Electronic Devices & Circuits: Introduction to Semiconductors: Semiconductor materials, Atomic structure of semiconductor materials, Energy bands, P-N junction under forward and reverse bias, Diodes: Equivalent circuits, Rectifiers, Clipping and Clamping circuits, Applications of Zener diodes. Bipolar Junction Transistors (BJTs): Construction, Principal of operation, I-V characteristics, Transistor circuit's configurations (CE, CB, CC), BJT biasing, Operating point, DC load line, Transistor switching and amplifier circuit. Operational Amplifiers.</p> <p>Digital Electronics: Number Systems, Boolean Algebra, Logic Gates, Combinational and Sequential Logic Circuits, Adder/Subtractor, Encoders, Decoders, Multiplexer and Demultiplexer.</p> <p>Power System: Overview of Bangladesh's power system, Major power generating stations and fuel used, Renewable sources, Transmission and Distribution of Electrical Power Fundamentals, Single line diagram, Switchgear Fundamentals.</p> <p>Telecommunication: Various Types of Modulation and Demodulation- AM, FM, PM. Comparisons of Analog and Digital Communication, Bandwidth and Channel Capacity.</p>

ME/IPE/MME
Syllabus
<p>Engineering Mechanics: Equilibrium of Co-planer forces; Moment and couples, Friction; Centroids and Centers of Gravity, Moment of inertia; Work, power and energy, Gear train.</p> <p>Strength of Materials: Stress and Strain; Mechanical properties of material; Deformation of materials; Shear forces and bending moment diagrams; Torsion.</p> <p>Thermodynamics and Heat Engine: Thermodynamic systems; Thermodynamic properties; Laws of perfect gas; Laws of thermodynamics; Thermodynamic processes; Thermodynamic air cycles; Thermodynamic vapor cycles; Heat engines and their performances; Refrigeration and heat pumps; Properties of steam; Boilers and their accessories and mountings; Fuels and lubricants.</p> <p>Fluid Mechanics and Fluid Machineries: Viscosity; Fluid statics; Manometry; Fluid flow measurements and measuring devices; Head loss; Hydraulic machineries and devices.</p> <p>Basic Electricity and Electronics: Basic Circuits and their laws; Electrical machineries: types and principles of operation; Voltmeters; Ammeters and other measuring instruments; Semiconductor diodes and Transistors and their characteristics.</p> <p>Production Process (Foundry, Welding, Sheet metal works and Machining): Pattern materials; Pattern allowances; Classification of patterns; Molding sands; Tools and processes used in foundry; Foundry furnaces; Casting and it's types; Casting defects; Different types of welding processes; Joints and related tools; Brazing and Soldering; Welding defects; Metal forming; Sheet metal working; Machine and Machine Tools & their related operations; Metal Cutting Processes; Cutting Tools; Cutting Fluids; Jigs & Fixtures; NC, CNC and DNC machining.</p> <p>Engineering Materials and Metallurgy: Aspects of engineering materials; Ferrous and non-ferrous metals and alloys; Aluminum as construction materials; Insulating materials; Glass and ceramics, Sound absorbing materials; Fire and water proofing materials; Plastic materials; Optical fiber; Introduction to composite materials; Melting furnaces and refractories; Iron-Iron carbide diagram; Heat treatment of steel.</p> <p>Production Management, Planning & Control: Organization; Scientific Management; Direct & Indirect Cost; Depreciation Methods; Different types of production systems; Location; Layout; Work measurement; Inventory Control; Quality control; Break even analysis.</p> <p>Measurement, Inspection and Instrumentation: Measurement and inspection; Precision & non-precision measuring instruments; Gauges, Limits-fits & Tolerances; Measurement and inspection instruments; Electromechanical instruments and control.</p> <p>Computer Fundamentals and Operations: Fundamentals of Computer Hardware and Elementary Software; Simple Knowledge in programming with C/C++; Microprocessors and Microcomputers.</p> <p>Automation, Robotics and Mechatronics: Fundamentals of automation; Automatic control; Fundamentals of Robotics and it's types; Fundamentals of Mechatronics; Mechatronic systems and their applications.</p> <p>Engineering Drawing: Orthographic views, Sectional view and isometric projections.</p>

CSE	
Syllabus	Comments
<p>Computer Fundamentals: Basic Organization and Functional Units: Hardware, Software, Software and its applications.</p> <p>Programming: Basic program structure and IDE, pseudo code, header files, data types, operators, variables and expressions, Input and Output, control statement and decision making, loop structure, arrays, library functions, Object oriented programming basics, class & object, Properties of object-oriented programming.</p> <p>Data Structure: Pointer, linked list, tree, stack, queue, searching, sorting.</p> <p>Database Management: Database system concept, data models, query languages.</p> <p>Operating system: Scheduling, memory management, storage and I/O system.</p> <p>Microprocessor & Microcomputer: 8086 Architecture, bus systems, instruction sets, assembly language, interrupt control, memories/storage.</p>	<p>i. Programming content- G Basic Programming Ges Object Oriented Programming (C++/Python) একত্রিত করা হয়েছে।</p> <p>ii. Discrete Mathematics, Software Development, Computer Graphics কোর্স</p>

<p>Data Communication & Computer Network: Transmission media, modulation/demodulation, Multiplexing, OSI and TCP/IP model, network topologies, network protocols, IP addressing.</p> <p>Digital Electronics: Number systems, Boolean algebra, Logic gates, Combinational and sequential logic circuits, Flip-Flops, Registers, Counters, Semiconductor Diodes and Rectifiers, Bipolar Junction Transistor (BJT), JFET, MOSFET, CMOS, Amplifiers.</p> <p>Basic Electricity: Electricity and Its Nature, Conductor, Semi-Conductor and Insulator. Capacitors and Inductors, Ohm's Law & Joule's Law, Electrical Circuit</p>	<p>গুলো ডিপ্লোমার নতুন প্রবিধানে না থাকায় Admission Syllabus থেকে বাদ দেওয়া হয়েছে।</p> <p>iii. Basic Electricity কোর্সটি ডিপ্লোমার নতুন প্রবিধানে থাকায় Admission Syllabus সংযোগ করা হয়েছে।</p>
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<p>TE</p> <p>Syllabus</p> <p>Textile Fibre: Introduction to textile fibres; physical and chemical properties, chemical composition, and end uses of cotton, jute, hemp, banana, coir, wool, and silk fibres. Introduction to man-made fibres and filaments and manufacturing processes of man-made fibres. Regenerated cellulosic fibres (viscose, Tencel, modal, and cuprammonium). Physical and chemical properties of polyester fibre, polyamide fibre, polyacrylonitrile fibre, polyacetate rayon, polyurethane (spandex), high-performance fibres, and sustainable man-made fibres (recycled polyester).</p> <p>Yarn Manufacturing: Basic concepts of spinning; blow room; mixing and blending machinery in the blow room; equipment and parameters in the blow room; definition of carding; stripping and doffing in the carding section; grinding and mounting; card waste and production calculation in carding; basic concept of draw frame; drafting zone; roller setting; stop motion and auto-leveler of draw frame; wastage, faults, and production calculation of draw frame. Basic aspects of long-staple spinning; assortment, batch and batching of jute fibre; emulsion; jute softening; Jute Carding; lap former; comber; wastage and faults of comber; simplex; winding and building mechanism of simplex; ring frame; roller setting; drafting and twisting of ring frame; winding and finishing. Jute draw frame; drafting in jute drawing frame; jute spinning frame; drafting and twisting in jute spinning frame; jute winding and finishing; and related calculations.</p> <p>Fabric Manufacturing: Basic concepts of weaving; winding process; winding machine; warping process; sectional warping machines; beam and ball warping machines; sizing process; size preparation for warp; sizing machine; drafting and denting; warp knotting; loom; motions of loom; shedding mechanism; picking; beat-up; take-up motion; let-off motion; brake motion; temple motion; weaving issues and calculations. Basic concepts of knitting; knitting machines; elements of knitting machines; weft knitting; single-jersey circular knitting machine; double-jersey circular knitting machine; warp knitting; knitting production calculations.</p> <p>Wet Processing: Basic concepts of wet processing; treatment of water; acids, bases, and salts; pH; normality, molarity, and molality of solutions; wastewater standards; auxiliaries for pretreatments; brushing and shearing; singeing and heat setting; batching for knit dyeing; desizing; scouring; bleaching and bleaching processes; combined preparatory processes; souring/neutralization; mercerization; dyes and dyestuffs; dyeing of textiles (direct dye, reactive dye, disperse dye, sulphur dye, and vat dye); dyeing of blended fabrics; textile printing; printing processes; textile finishing; knit finishing; dyeing machinery; textile printing machinery; textile finishing machinery; garment dyeing and washing.</p> <p>Apparel Manufacturing: Basic aspects of the apparel industry; process sequence of apparel manufacturing; terminology of apparel manufacturing; human body anthropometry; technical package and measurement of apparel; pattern making; pattern grading; marker making; CAD and CAM; digitizing and plotting; sample making; virtual sampling and prototyping; fabric inspection and fabric relaxation; spreading; fabric cutting; seams and stitches; feed mechanisms; sewing needles; sewing threads; sewing machines; components of sewing machines; bed types of sewing machines; sewing faults; working aids; trimmings and accessories; pressing and finishing; folding and packing; alternative methods of joining; apparel inspection.</p> <p>Textile Testing: Introduction to textile testing and quality control; sampling techniques; identification of textile fibres; humidity and moisture in textiles; fibre length measurement; fibre fineness; fibre strength measurement; fibre maturity; trash and nep measurement; yarn numbering system; twist in yarn; yarn strength and elongation; yarn evenness and imperfections; yarn faults; fabric testing; fabric composition tests; physical properties of fabrics; fabric strength; air permeability; water permeability; fabric crease, drape, stiffness, and handle; abrasion and pilling; dimensional stability of fabrics; colour fastness tests; colour assessment; apparel testing; functional testing for fabrics and apparel; testing standards and certifications.</p> <p>Fabric Structure and Design: Introduction to fabric structure and design; fundamentals of woven design; plain weave; derivatives of plain weave; twill weave; zigzag and herringbone twill; diamond and diaper design; broken twill and rearranged twill; stepped and elongated twill; combined twill; shaded twill; satin and sateen weaves; derivatives of satin weaves; basic weft-knitted structures; typical export-oriented fabrics.</p>
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<p>Architecture</p> <p>2nd Paper Technical (MCQ)</p> <p>Syllabus</p> <p>History of Architecture : Indo-Islamic architecture; Development of Islamic architecture during Mughal period; Islamic architecture in Bengal; Islamic architecture in Dhaka; Hindu architecture in East Bengal; Ancient architecture in Bengal. Architecture of modern and contemporary period (various movements in architecture by the works of renowned architects, rise of modernism in Bangladesh architecture through the works of well-known architects).</p> <p>Basic Construction Process : Concrete; Foundations and foundation soil; Shallow foundations; Deep foundation; Brick masonry; Composite masonry; Cavity walls; Partition walls. Arches; Lintels; Ground floors; Upper floors; Damp proofing; Termite treatment; Stairs; Roof; Pitched roof; Plastering and pointing; Doors; Windows; Carpentry and Joinery; Shoring, Underpinning Scaffolding; Form works. Construction tools and equipment; painting & varnishing; Concept of doors and windows.</p>
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চলমান পাতা-০৫

Estimating & Costing :

Introduction of estimating; Quantity estimation of excavating tank, road embankment, canal digging, boundary wall, bituminous & R.C.C. road; Complete estimate of a single stored two-roomed building with verandah
Rate Analysis of various items as per PWD standard (earth work, earth and sand filling, brick work, DPC).

Surveying :

Chain survey; Plane table surveying; Leveling; Contouring; Theodolite surveying; Traversing; Tachometric surveying; Topographic surveying.

Compass surveying, Cadastral surveying, Surveying Equipment.

**Architecture
Technical (Descriptive /Drawing)**

Syllabus

Basic Drawing: Drawing with still life, such as bottles, books, cups, vases etc.

Analytical Drawing: To understand the skill about plan, section, elevation, axonometric drawing etc.

Composition of forms 1: Basic composition with primary shapes and lines.

Composition of forms 2: Graphic Design with basic elements in poster design, cover design, Logo etc.

Human figure: To understand the skill about the gesture, posture, proportion ratios of human body and organs.

Perspective: To understand the skill to perceive the one point of two-point perspectives.

History of Architecture:

Indo-Islamic architecture; Development of Islamic architecture during Mughal period; Islamic architecture in Bengal; Islamic architecture in Dhaka; Hindu architecture in East Bengal; Ancient architecture in Bengal.

Architecture of modern and contemporary period (various movements in architecture by the works of renowned architects, rise of modernism in Bangladesh architecture through the works of well-known architects).

Basic Construction Process:

Concrete; Foundations and foundation soil; Shallow foundations; Deep foundation; Brick masonry; Composite masonry; Cavity walls; Partition walls. Arches; Lintels; Ground floors; Upper floors; Damp proofing; Termite treatment; Stairs; Roof; Pitched roof; Plastering and pointing; Doors; Windows; Carpentry and Joinery; Shoring, Underpinning Scaffolding; Form works.

Construction tools and equipment; painting & varnishing; Concept of doors and windows.

Estimating & Costing:

Introduction of estimating; Quantity estimation of excavating tank, road embankment, canal digging, boundary wall, bituminous & R.C.C. road; Complete estimate of a single stored two-roomed building with verandah

Rate Analysis of various items as per PWD standard (earth work, earth and sand filling, brick work, DPC).

Surveying:

Chain survey; Plane table surveying; Leveling; Contouring; Theodolite surveying; Traversing; Tachometric surveying; Topographic surveying.

Compass surveying, Cadastral surveying, Surveying Equipment.

Chemical Engineering

Syllabus

Basic Stoichiometry: Units and Unit Conversion; Temperature Scale and Conversion; Basic Concepts of Chemical Reaction; Density; Specific Gravity; Pressure; Ideal Gas Law.

Unit Operation: Measurement of Fluid Pressure; Manometer; Flow Measurement Apparatus; Types of Flow; Bernoulli's Theorem; Friction in Pipe; Centrifugal Pumps; Modes of heat transfer; Types of heat exchanger; Boiler, Boiler Mountings and Accessories.

Fuel and Energy: Classification and Properties of Fuels; Combustion Principles; Higher and Lower Calorific Value; Renewable Energy; Energy Conversion, Sensible and Latent Heats; Thermodynamics of Heat Engines.

Chemical Process Industries: Process block diagrams, Manufacturing Processes, and Reactions of Ammonia and Urea, Portland Cement, Sulphuric Acid Industries and Refineries.

Engineering Mechanics: Equilibrium of Force; Moment and Applications; Centroid; Moment of Inertia; Friction; Work; Power and Energy; Shear Force and Bending Moment.

Industrial Management: Organization; Direct and Indirect Cost; Depreciation; Different Types of Production Systems; Location; Layout; Work Measurement; Inventory Control; Break Even Analysis

Basic Electricity and Electronics: Basic Circuits and Their Laws; Electrical Machineries: Types and Principles of Operation; Voltmeters; Ammeters and Other Measuring Instruments; Semiconductor Diodes and Transistors.

Basics of Computer Sciences and IT: Fundamentals of Computer Hardware & Software and Applications; Basic Concepts of ICT.

Food Engineering

Syllabus

Food Engineering and Technology: Unit operations and unit processes; Sorting, grading and size reduction of food materials; Filtration; Mixing; Conversion factor; Mass balance; Modes of heat transfer.

Food Preservation: Food preservation and preservatives; Basic principles of food preservation; Methods of food preservation; Pasteurization and sterilization; Food spoilage; Storage life of food.

Refrigeration and Freezing of Foods: Basic concepts of refrigeration and freezing; Refrigeration system; Refrigerants and their properties; Types of pre-cooling and cooling; Cold storage.

Food Chemistry and Nutrition: Composition and classification of foods; Classification, functions, and sources of carbohydrates, proteins and lipids; Moisture in food; Basic nutrition; Malnutrition; Balanced diet.

চলমান পাতা-০৬

