IPU CET B.Tech Syllabus

Mathematics:

- Relations and Functions
- Algebra
- Calculus
- Vectors and 3-D Geometry
- Linear Programming
- Probability

Chemistry:

- Solid State
- Solutions
- Electrochemistry
- Chemical Kinetics
- Surface Chemistry
- Isolation of Elements
- p-Block Elements
- d- and f-Block Elements
- Coordination Compounds
- Haloalkanes and Haloarenes
- Alcohols, Phenols and Ethers
- Aldehydes, Ketones and Carboxylic Acids
- Organic Compounds containing Nitrogen
- Biomolecules
- Polymers
- · Chemistry in Everyday Life

Physics

- Electrostatics
- Current Electricity
- Magnetic effect of current & Magnetism
- Electromagnetic Induction & Alternating Current
- Electromagnetic Waves
- Optics
- Dual Nature of Matter
- Atoms & Nuclei
- Electronic Devices

English:

- Reading Unseen Passages and Note-making
- Writing Skills
- Literature and Long Reading Text

IPU CET Syllabus of MBA and BBA Exam

| <u>Subjects</u> | Syllabus |
|---------------------|--|
| English Language & | Grammar, Vocabulary, Uncommon words, Antonyms, Relationship |
| Comprehension | between words & phrases, Sentence completion, Synonyms & |
| | Comprehension of passages etc. |
| Numerical Ability & | Numerical calculation, Arithmetic, Trigonometry, Simple algebra, |
| Mathematics | Geometry, Interpretation of graphs, charts and tables etc. |
| Logical Reasoning & | Creative thinking, Finding patterns, trends Unfamiliar |
| Data interpretation | relationships, Verbal reasoning & Assessment of figures & |
| | diagrams etc. |
| General Awareness | Knowledge of current affairs, Other issues related to trade, sports, |
| | culture, industry, economy, and science etc. |

IPU CET Syllabus for M.Tech (Nano Science and Technology)

Physics:

- Interference
- diffraction
- Lasers
- Theory of Relativity
- The second law and Entropy
- Quantum Mechanics
- Quantum Statistics
- Band theory of solids
- X-rays
- Overview of Electro Magnetism
- Numerical techniques
- Diffraction
- Polarization
- Optics
- Thermodynamics
- Refrigeration and liquefaction
- The Schrodinger wave equation (1 dimensional)
- Applications
- Digital techniques and their applications (registers, counters, comparators and similar circuits) A/D and D/A converters Superconductivity
- Electricity and magnetism
- Nuclear Physics

Chemistry:

- Gaseous State
- Chemical thermodynamics
- Thermochemistry
- Third Law
- Electrochemistry

- Strong electrolytes
- Autocatalysis Colloids
- Chemical Bonding
- The phase rule
- First law
- Second Law
- Chemical Kinetics
- Surface Chemistry
- Catalysis
- Polymers
- Acids & Bases

Mathematics:

- Linear Independence and dependence of vectors
- · Gauss elimination method
- Method of separation of variables
- linear equations
- Probability
- Systems of linear equations consistency and inconsistency
- Successive differentiation
- Homogeneous
- exactness and integrating factors
- Directional Derivative etc.

Biology:

- History of earth
- Classification-two kingdom
- · Chemicals of life
- Cell
- Transport
- Nutrition etc.
- theories of origin of life nature of the earliest organism
- Protista
- Histology
- Nutrition
- Energy Utilization