Syllabus for Lateral Entry Common Entrance Test for Admission to 3rd Semester in B.E./B. Tech. Programme, University of Kashmir, Effective from Academic Session 2016

1. Mathematics
Differential Equations:

2. Physics

3. Chemistry
i) Molecular Structure and Bonding: The VSEPR model, Valence bond theory, molecular orbital theory, molecular orbital theory of solids, semiconductors
iii) Probes (Tools) for Structural Elucidation: Molecular Absorption Spectroscopy, Chronophers. Magnetic Resonance Spectroscopy-Principles and application to simple molecules and Introduction to Photoelectron Spectroscopy
iv) Lubricants: Lubrication mechanism, classification of Lubricants semisolid and liquid lubricants, viscosity and viscosity index criteria for selection of Lubricants for specific purposes.


5. Basics of Electrical Engineering
Circuits. Alternating Voltage & Current: (Signal, Parameters, Generation, Applications, non-sinusoidal A.C.’s, EMF Equations, Mean, Average, RMS, Peak, Form Factor).

6. Basics of Electronics Engineering

7. Basics of Computation and Computer Programming

Stress and Strain: Concept of Stress and Strain, Simple Stresses, Tensile, Compressive, Shear, Bending and Torsion, Stress-Strain Curves, Elongation of bars, Composite bars, Thermal Stresses, Elastic Constants, Concept of C.G. and Centroid, Position of Centroid, Theorem of Parallel and Perpendicular Axes, Moment of inertia of simple geometrical figures.