

Programme: Master of Science Chemistry (MSCCH20)

Year / Semester: Ist semester

Paper Code: MCH 503

Paper Name: Physical Chemistry- I

Syllabus

Block – I QUANTUM CHEMISTRY

Unit: 1 Basic quantum chemistry

Unit: 2 Wave Mechanics of some simple systems with Constant potential energy

Unit: 3 Hydrogen – like atoms

Unit: 4 Approximation Methods and Interaction of Radiation And Matter Unit:

5 Theories of Chemical Bonding – Diatomic Molecules

BLOCK – II THERMODYNAMICS

Unit: 6 Concept of Thermodynamic Law – First law of Thermodynamics Unit:

7 The Second law of thermodynamics

Unit: 8 Spontaneity and Equilibrium

Unit: 9 Ideal and Non-ideal solutions and activity coefficients Unit: 10

Nernst Heat Theorem and Third law of Thermodynamics