

M.Sc. (PHYSICS) Programme Structure
Programme Code: MSCPHY-20
Second Semester

COURSE – 6 Elementary Solid State Physics

Credits – 3

Paper code: MPHY506

Total Marks: 50(Assignment 10 + Theory Exam 40)

BLOCK-I CRYSTALLINE STATE AND CRYSTAL STRUCTURE

- Unit –1 : Crystalline State and Crystals Structure
- Unit –2 : Non-Crystalline State
- Unit –3 : Elements of X-Ray Diffraction
- Unit –4 : Experimental Techniques for Structured Determination

BLOCK -II IMPERFECTIONS IN CRYSTALS

- Unit –5 : Imperfections in Crystals
- Unit –6 : Diffusion
- Unit –7 : Dislocations

BLOK-C-III FREE ELECTRON THEORY BAND THEORY OF SOLIDS

- Unit –8 : Free Electron Theory
- Unit –9 : Band Theory of Solids
- Unit –10 : Semiconductors
- Unit –11 : Solid State Lasers