Course Code: 3MSCP1
Course: Condensed Matter Physics
Credit: 3
Last Submission Date: April 30 (for January Session)
October 31, (for July session)

Max. Marks:-30
Min. Marks:-11

Note:-attempt all questions.

Que.1   Describe the power method for x- ray diffraction and explain how it is used for determination of crystal structure.

Que.2   What is role of dislocation in plastic deformation and crystal growth.

Que.3   Explain the classification of solids according to the band theory of solids.

Que.4   State and prove Bloch theorem. Discuss its importance in the classical theory.

Que.5   What is electronic polarizibility? Derive an expression for electronic polarizibility using the classical theory.

Que.6   What is dipolar polarizibility? Obtain an expression for dipolar polarizibility of dielectric at moderate temperature.

Que.7   Explain heisen berg model and molecular field theory.

Que.8   Give an account of the weiss theory of ferromagnetism discuss the temperature variation of saturation magnetisation.