SUBJECT NO-PH41017, SUBJECT NAME- Condensed Matter Physics-II

LTP- 3-0-0,CRD- 3

SYLLABUS :-

Semiconductors: intrinsic and extrinsic semiconductors, hole, effective mass, impurity band conduction, p-n junction, Schottky barrier, quantum Hall effect. Optical properties, dielectric, ferroelectric, displasive and soft mode, magnetism, dia- , para-magnetism, Curie-Weiss law, Van Vleck and Pauli paramagnetism, ferro- , anti- and ferrimagnetism . Exchange interaction, spin wave, resonance absorption, dilute magnetic alloys. Superconductivity: phenomenology, GL theory and some ideas of microscopic origin.