

DISCRETE ELECTRONIC CIRCUITS

Code : EC 301 (EI)

Credits : 3

Module I

Review of basic transistor circuits: CE, CB and CC modes of operation, Biasing, Qpoint.

Module II

Types and classification of amplifiers

- a) Small signal amplifiers – analysis and frequency response of different modes (CB, CE, CC).
- b) Large signal amplifiers (Power amplifiers: Class A, Class B, Class C) – analysis,

Power and efficiency calculations, push-pull, complementary symmetry, quasi complimentary symmetry.

Module III

Different configurations of feedback amplifiers-voltage series, voltage shunt, current series and current shunt, effects on gain, i/p and o/p impedances.

Module IV

Oscillator: Criterion for oscillation, RC oscillator - phase shift and Wien Bridge oscillator, LC oscillators – Hartley, Colpitt and tuned circuits.