

Code: R7102303

R07

B. Tech I Year (R07) Supplementary Examinations, May 2012
BASIC ELECTRICAL & ELECTRONICS ENGINEERING
(Biotechnology)

Time: 3 hours

Max Marks: 80

Answer any FIVE questions
All questions carry equal marks

- 1 (a) State and explain Ohms law.
(b) Find the current that will flow through a coil of negligible resistance and inductance of 60 mH, when connected to 230 V, 50 Hz, single phase supply.
- 2 (a) Explain the principle of operation of synchronous generator.
(b) Explain the principle of operation of 3 phase induction motor.
- 3 (a) Explain the principle of operation of moving coil, instruments with neat diagram.
(b) Explain the principle of operation of dynamometer type wattmeters with neat diagram.
- 4 Explain the operation, characteristics and applications of:
(i) Diac.
(ii) Triac.
- 5 Explain Common Emitter (CE) configuration of transistor and also explain its characteristics.
- 6 Draw and explain voltage amplifier circuit.
- 7 Explain in detail:
(a) Wein bridge oscillator.
(b) Integrated circuits.
- 8 Explain in detail with simple examples:
(a) Half adders.
(b) Full adders.
