Code: R7102303

R07

B.Tech I Year (R07) Supplementary Examinations, June 2013 **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 ohm's law.
 - (b) Define and explain RMS value, current.
- 2. (a) Explain the principle of operation of DC generators.
 - (b) Explain the principle of operation of single phase transformers.
- 3. Explain the principle and operation of dynamometer type watt meter with heat diagram.
- 4. (a) With neat circuit diagram explain the operation of half wave rectifier circuit.
 - (b) Draw and explain the characteristics of zener diode.
- 5. (a) Explain why CE configuration is commonly used in circuits.
 - (b) Write short notes on UTI.
- 6. Explain in detail class B amplifier.
- 7. With a neat circuit explain the operation of Hartley oscillator and also derive the expression for frequency of oscillations.
- 8. (a) Write short notes on registers and connectors.
 - (b) Explain briefly digital computer principle.
