

Code: R7102303

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

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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 neat 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.

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