

**R09****Code: 9A23704**

B.Tech IV Year I Semester (R09) Supplementary Examinations, May 2013

**BIOSENSORS & BIOELECTRONICS**

(Biotechnology)

Time: 3 hours

Max. Marks: 70

Answer any FIVE questions  
All questions carry equal marks

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1. Define biosensors. Explain various components of biosensors. Add a note on application of biosensors.
2. Write short notes on:
  - (a) Biocatalyst based biosensors.
  - (b) Type of membranes used in biosensors.
3. Describe in detail about principle, construction and application of potentiometric biosensors.
4. Explain the following:
  - (a) Piezoelectric based transducers.
  - (b) Chemiluminescence based transducers.
5. Describe in detail about application of biosensors in health care.
6. Describe various applications of biosensors in environmental monitoring.
7. Describe in detail about mechanism of unit assembly.
8. Describe in detail the commercial prospects of biomolecular computing system.

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