

Code :R7102304

**R7**

**B.Tech I Year (R07) Supplementary Examinations, December 2010**  
**FUNDAMENTALS OF BIOLOGY**  
(Biotechnology)

**Time: 3 hours**

**Max Marks: 80**

**Answer any FIVE questions**  
**All questions carry equal marks**

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1. Can you explain why some protozoans are harmful to humans?
2. Describe the primary internal structure of monocot and a dicot stem.
3. Write a detailed account on the polymorphism in Hydra.
4. Describe the mechanism of DNA replication in eukaryotes with diagrams.
5. Microtubules, microfilaments, and intermediate filaments are all main components of the cytoskeleton. Explain
6. Write notes on:
  - (a) functions of taste buds
  - (b) transmission of taste signals into the central nervous system.
7. Name three substances that are used by certain bacteria as terminal electron acceptors in the process of anaerobic respiration. How does this process differ from aerobic respiration? What is the biological importance of anaerobic respiration?
8. Discuss on:
  - (a) biofuels in developing countries
  - (b) current issues in biofuel production and use

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