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Code No. : **8086**



**FACULTY OF SCIENCE**  
**B.Sc. II Year Examination, March/April 2012**  
**BIOTECHNOLOGY (General)**  
**Paper – II : (Biological Chemistry and Microbiology)**

Time : 3 Hours]

[Max. Marks : 100

**Note:** Answer *all* questions. *All* questions carry *equal* marks.

1. a) Discuss in detail structure and functions of Heteropolysaccharides.

OR

b) Give the classification, structure and properties of amino acids.

2. a) Describe glycolysis and citric acid cycle ?

OR

b) Discuss in detail chemiosmotic theory of ATP synthesis.

3. a) Explain the following :

a) Classification of microorganisms

b) Characters of Micro Algae.

OR

b) Mention the various methods of sterilization and mention the advantages of each one of them.

4. Mention the principles and applications of Radio isotopes in biology.

OR

Explain the following :

a) Centrifugation

b) UV-Spectroscopy

5. Write short notes on **any three** of the following :

a) Structure and function of Disaccharides.

b) Cardiac glycosides

c) Secondary structures of proteins

d) Triacylglycerols

e) Pure cultures.