



Code No. : 8082

FACULTY OF SCIENCE
B.Sc. II Year Examination, March/April 2012
BIO-CHEMISTRY
Paper – II (Metabolism and Bio-chemical Techniques)

Time: 3 Hours]

[Max. Marks : 100

SECTION – A

(8x5=40 Marks)

Answer any eight questions from the following :

1. Un couplers.
2. De carboxylation reaction.
3. High energy compounds.
4. Beer – Lambert's law.
5. Chemiosmotic theory.
6. Ketogenesis.
7. Biosynthesis of cholesterol.
8. Principle of fluorimetry.
9. Inhibitors of respiratory chain.
10. Ultra structure of chloroplast.
11. Gout.
12. Uses of radio isotopes in biology.



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SECTION – B

(4×15=60 Marks)

Answer all the following :

- ✓ 13. a) Sketch the ultra structure of mitochondria and discuss the arrangement of electron transport chain carriers.

OR

- b) Discuss the oxidative phosphorylation in detail add a note on uncouplers.

- ✓ 14. a) Discuss the pentose phosphate pathway and its physiological significance.

OR

- b) Discuss the salient features of β -oxidation. What is the energy yield ?

- ✓ 15. a) Enumerate the general reactions involved in amino acid metabolism. Indicating the co-enzyme participation.

OR

- b) Discuss the biosynthesis and regulation of purine nucleotides.

- ✓ 16. a) Write an essay on methods used in tissue homogenization.

OR

- b) Explain the principle in centrifugation and list out its applications.