

C 28394

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Name

Reg. No.....

SECOND SEMESTER M.Sc. DEGREE EXAMINATION, JULY 2012

(CUCSS)

General Biotechnology

GB 2C 1—METABOLISM AND BASIC ENZYMOLOGY

Maximum : 36 Weightage

Time : Three Hours

Section A

Answer all the ten questions with one or two sentences, each carries 1 weightage.

1. Enthalpy.
2. Specific activity.
3. Induced fit hypothesis.
4. Zymogen.
5. Holoenzyme.
6. Abzyme.
7. RNA world hypothesis.
8. Oligosaccharides.
9. Glycoproteins.
10. Competitive Inhibition.

(10 x 1 = 10 weightage)

Section B (Short Answer Questions)

Answer any seven out of ten questions, each carries 2 weightage.

11. Distinguish glycogenolysis and gluconeogenesis.
12. Describe urea cycle.
13. Discuss mechanism of enzyme action.
14. Explain enzyme engineering and its application.
15. Explain fatty acid metabolism.
16. What is Bioenergetics? Explain its significance in cellular metabolism.
17. Explain electron transport systems in Mitochondria.
18. Discuss about different types of enzyme inhibition.
19. Explain Biosynthesis of Purine.
20. Differentiate between aerobic and anaerobic oxidation.

(7 x 2 = 14 weightage)

Turn over

Section C (Essay Questions)

*Answer any **two** out of the **three** questions, each carries **6** weightage.*

21. Explain the mechanism and regulation of enzyme catalysis.
22. Explain Biosynthesis of cholesterol.
23. Give a general account on nucleic acid biosynthesis.

(2 x 6 = 12 weightage)