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I Semester M.Sc. in Biotechnology Examination May 2015

BT 1.3: ENZYMOLOGY

Time: 3 Hours **Max. Marks: 80**

Instruction: *Answer all the sections.*

Section A

Answer any **FOUR** questions from the following $4 \times 5 = 20$

1. Effect of temperature and pH on enzyme catalyzed reactions.
2. Mechanism of action of ribonuclease.
3. Endo and exonuclease.
4. Isoenzymes.
5. Linearization of Michaelis-Menten plot.
6. Coenzymic role of FMN and FAD.

Section B

Answer any **THREE** questions from the following $3 \times 10 = 30$

7. Nomenclature and classification of enzymes.
8. Bisubstrate reactions with Cleland's notations.
9. Multienzyme complex.
10. Proteins degradation by Ubiquitin and lysosomal pathways.
11. Compitative and noncompitative inhibitions.

Section C

Answer any **TWO** questions from the following $2 \times 15 = 30$

12. Derive the Michaelis-Menten equation using initial velocity and steady state approaches.
13. Write in detail about the Allosteric enzymes.
14. Describe enzyme immobilization with its applications.
15. Discuss the applications of enzymes in medicine, diagnosis and food industries.

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