Reg. No. ☐☐☐☐☐☐☐☐

BTS 404

First Semester M.Sc. Degree Examination, December 2018
BIOTECHNOLOGY
(CBCS)
Enzymology

Time : 3 Hours

Max. Marks : 70

PART – A

Write short notes on **any ten** of the following (**not** exceeding **1** page **each**).　　(10×2=20)

1. a) Active site.
   b) Substrate specificity.
   c) Multienzyme complex.
   d) Transition state analogues.
   e) Free energy of enzyme reactions.
   f) Sigmoid kinetics.
   g) Michaelis constant.
   h) Bisubstrate reactions.
   i) Abzymes.
   j) Zymogens
   k) Enzyme immobilization.
   l) Enzyme engineering.

PART – B

Write explanatory notes on **any five** of the following (**not** exceeding **3** pages **each**).　　(5×6=30)

2. Criteria for enzyme purification.

3. Cornish Bowden plot.

4. Industrial application of proteases.

5. Acid base catalysis.

6. Alcohol dehydrogenase.

7. Elucidation of rate limiting step.

8. Regulation of enzyme activity.

P.T.O.

PART – C

Answer **any two** of the following (**not** exceeding **7** pages **each**).   **(2×10=20)**

9. Describe the various factors affecting the activity of an enzyme catalysed reaction.

10. Explain the mechanism of action of lysozyme.

11. Derive Michaelis-Menten equation add a note on V_{max}.

12. Describe the various mechanisms of enzyme inhibition.

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