

ND-141

November-2021

B.Sc., Sem.-V

303 : Biochemistry

(Enzymology)

Time : 2 Hours]

[Max. Marks : 50

Section – I

Answer any **three** questions from the followings :

1. (A) What are the types of specificity of Enzymes. 7
(B) Discuss properties of bio-catalyst. 7
2. (A) Explain Koshland & Fischer model. 7
(B) Giving examples explain (discuss) Metalloenzymes. 7
3. (A) Discuss with examples – “Zymogens”. 7
(B) Explain in detail– LDH iso-enzymes. 7
4. (A) Short note on “Multi-Enzyme Complex”. 7
(B) Explain – Class-II, V of enzyme classification. 7
5. (A) How allosteric enzymes are different than non-allosteric enzymes ? Discuss. 7
(B) Short note on : Random mechanism of 2 substrate reaction. 7
6. (A) Explain why and how co-valent modification of enzyme affects reactions (process). 7
(B) Explain effect of substrate concentration on enzymatic reactions. 7
7. (A) Explain – Extremozyme and Abzymes. 7
(B) Explain – Active site and 3D structure of Enzyme. 7
8. (A) Explain – Class – IV and VI of Enzyme classification. 7
(B) Explain – Thermosensitive nature of enzymes. 7

Section – II

9. Answer any **eight** questions from the following :

- (1) Define Cofactor.
 - (2) Define Synzyme.
 - (3) Define V_{\max} . (explain term)
 - (4) What is “Ribozyme nature” ?
 - (5) Name and contribution of one enzymologist.
 - (6) Name any one enzyme which is membrane bound.
 - (7) Name 1 enzyme requires Mg^{++} .
 - (8) Glucose-6-phosphatase belongs to which class of Enzyme classification ?
 - (9) Define Holoenzyme.
 - (10) Name 2 co-enzymes.
 - (11) Full form of AT Case is _____.
 - (12) Name any one enzyme of Class – I.
 - (13) Name any one enzyme of Class – III.
 - (14) Define “Allosteric site”.
 - (15) Hydrolase belongs to which class ?
 - (16) Name class of enzyme for PDH.
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