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SARDAR PATEL UNIVERSITY

V -SEMESTER EXAMINATION, November 2013

BIOCHEMISTRY -

-ENZYMOLGY - US05CB02

Date : 15/11/13

time: 10.30_{am}-1.30_{pm}

Marks:70

Q.1 multiple choice questions

[10]

- 1 For which method purification dose not dependent on size and mass
a) centrifugation b)ion exchange chromatography c)gel filtration d)dialysis
- 2 enzymes are also known as
a) protein biocatalyst b)organic catalyst c)thermo stable d)inoncollidal
- 3 metal ions needed for enzyme activity are known as
a) coenzymes b) cofactors c)apoenzymes d)isoenzymes
- 4 At iso electric pH bimolecules carry
a) positive charge b)negative charge c)both charge d) no net charge
- 5 In ultracentrifuge pressure is applied by
a) nitrogen gas b) argon gas c)apoenzymes d)isoenzymes
- 6 Which is not an example for competitive inhibition
a) dihydro folat by amethoptrine b) enolase by flouride c)methanol by ether
d)dicumarole
- 7 M-M constant is equal to
a) V max b) V max /2 c) 2 V d) V
- 8 Tertiary structure involved
a) Enzyme and two substrate b) Enzyme ,inhibitor and substrate
c) Enzyme and substrate d) Enzyme ,metal ion and substrate
- 9 Which enzyme is not associated with
a)M-M CPK b) MBCPK c) LDH d) SGOT
- 10 Uric acid level is an important value for the diagnosis of
a) diabetes b) gout c) asterisms d) cardiac infraction

P.T.O

Q.2 Small questions [answer any ten]

[20]

- 1 What is effect of pH on activity of enzyme?
- 2 What do you mean by enzyme activity?
- 3 Define 'Katal'
- 4 write on application of dialysis. Give name for dialysis memberane.
- 5 Write principle for affinity chromatography
- 6 Write on localization of mitochondrial enzymes.
- 7 Write on significance of Km value
- 8 Enlist the feature for allosteric inhibition
- 9 Define-zero order and first order reaction
- 10 Enlist application of immobilize enzymes with example.
- 11 Write on uses of protease
- 12 Give examples of micro-organisms involved for the production of organic compounds

- Q.3** a) write note on marker enzyme for myo cardiac infraction . **[5]**
b) explain -adsorption method for enzyme immobilization . **[5]**

OR

- a) Explain –encapsulation method for enzyme immobilization . **[4]**
b) Classify LDH and explain - importance of it's estimation. **[6]**

- Q.4** a) Write note on application of enzyme purification method based on size and mass. **[5]**
b) Explain gel filtration for enzyme purification . **[5]**

OR

- a) Explain – any one enzyme purification method based on polarity **[5]**
b) Discuss –affinity elution method for enzyme purification . **[5]**

- Q.5** a) Differentiate between competitive and non competitive inhibition. **[6]**
b) Explain ping pong mechanism. **[4]**

OR

- a) Discuss Michaelis – Menten theory **[6]**
b) write note on inhibitors . **[4]**

- Q.6** Write role of coenzymes in enzyme catalysis. **[10]**

OR

- Discuss factors effecting on enzyme activity. **[10]**