

**V.P & R.P.T.P SCIENCE COLLEGE**

Vallabh Vidyanagar

**Internal Test : 2013**

**B.Sc Vth Semester**

**Total Marks - 30**

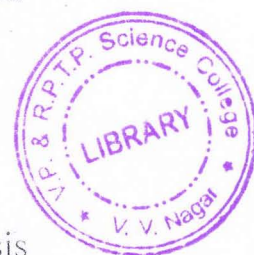
**Date: 03-10-13**

**Time : 3-30 to 5-00 p.m Microbiology - US05CMIC03**

**Q.1 Multiple choice questions.**

**(06)**

- 1) The rate of passive diffusion is determined by :
  - a) concentration gradient
  - b) Specific protein molecule
  - c) cellular energy
  - d) electrochemical gradient
- 2) The term Siderophore was first proposed by :
  - a) J.B.Neilands
  - b) Lankford
  - c) Arnow
  - d) Gibson & Magrath
- 3) Which of the following Scientist proposed Lock & Key hypothesis
  - a) Koshkand
  - b) Buchner
  - c) Berzelins
  - d) Emil fischer
- 4) An inactive precursor of the enzyme is known as :
  - a) Zymogen
  - b) Co-enzyme
  - c) Isozyme
  - d) Apoenzyme
- 5) When  $[V_o]$  is plotted against  $[S_o]$ , a curve which is obtained is :
  - a) Straight line
  - b) Sigmoid curve
  - c) Rectangular hyperbola
  - d) Arithmetic curve
- 6) Name the type of reaction in which NAD is used as co-enzyme.
  - a) Carboxylation
  - b) Phosphorylation
  - c) Alkylation
  - d) Oxidation - Reduction



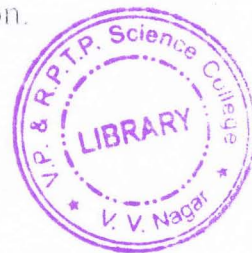
**Q.2 Short Answer questions. (Attempt any three)**

**(06)**

- 1) Explain the fluid mosaic model of Singer & Nicolson.
- 2) Explain Symport and Antiport.
- 3) What is active site ? List the salient features of active site.

P.T.O

- 4) Explain absolute specificity giving example.
- 5) Explain the Ping Pong mechanism of multisubstrate reaction.
- 6) Explain the significance of double reciprocal plot.



Q.3 What is passive transport ? Discuss passive diffusion process of solute transport across the membrane (06)

OR

Q.3 What is Siderophore ? Discuss the roles of siderophore in detail.(06)

Q.4 Discuss various factors affecting Enzyme activity. (06)

OR

Q.4 Discuss IUB system of Enzyme classification. (06)

Q.5 Explain the mechanism & Kinetics of reversible type of enzyme inhibition . (06)

OR

Q.5 Write on : Allosteric enzyme. (06)

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