

APRIL 2017

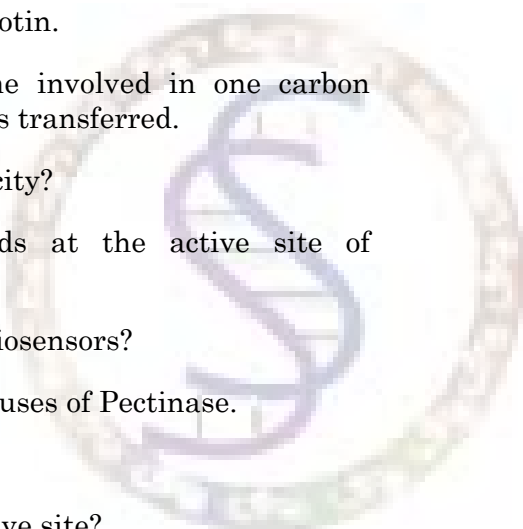
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Time : Three hours

Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer any TEN questions.

1. Define specific activity.
 2. Write any one application of stopped flow technique.
 3. What are allosteric enzymes?
 4. Define K_m and V_{max} .
 5. Give the structure of Biotin.
 6. Mention the co-enzyme involved in one carbon transfer with the groups transferred.
 7. What is relative specificity?
 8. Name the amino acids at the active site of chymotrypsin.
 9. What are the types of biosensors?
 10. List any two industrial uses of Pectinase.
 11. Define abzymes.
 12. What is mapping of active site?
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SECTION B— (5× 5= 25 marks)

Answer any FIVE questions.

13. Write a note on coupled enzyme assay?
14. Discuss the effect of pH and temperature on enzyme action.
15. Explain the co-enzymic functions of TPP.
16. Write the method of determination of active site of enzyme with reference to serine.
17. Outline the industrial uses of Lipase and Protease.
18. Describe the role of covalent modification in regulation of glycogen synthase.
19. How are the LDH isoenzymes separated?

SECTION C — (4 × 10 = 40 marks)

Answer any FOUR questions.

20. Give a detailed account on different methods of enzyme purification.
21. Explain the kinetics of single substrate enzyme catalyzed reaction.
22. Elaborate on the structure and functions of co-enzyme A.

23. What is the active site of an enzyme? Explain the mechanism of action of enzymes?
24. Discuss the methods of enzyme immobilization and their applications.
25. What is methanogenesis? Explain in detail about the co-enzymes involved.

