APRIL 2018 **1709412/PBYM21C**

Time : Three hours Maximum : 75 marks

SECTION A — (10 × 1 = 10 marks)

Answer any TEN questions.

Each question carries 1 mark.

1. Define enzyme.
2. What are isoforms of an enzyme with an example?
3. What is meant by catalytic activity of enzyme?
4. What is M-M equation?
5. Give the coenzymes involved in methanogensis.
6. Give the role of vitamin K in blood clotting process.
7. How is histindine identified in the active site of the enzyme?
8. What are abzymes?
9. Define active site of the enzyme.
10. What are immuno biosensors?

11. What is the application of stopped flow techniques?

12. Define catalytic efficiency.

SECTION B — (5 × 5 = 25 marks)

Answer any FIVE questions.

Each question carries 5 marks.

13. Differentiate between direct and indirect enzyme coupled reactions.

14. Discuss the mechanism of regulation of glycogen synthase.

15. Note on the mechanism of action of pyruvate dehydrogenase.

16. What is proximity and orientation effect of enzyme catalysis?

17. Give an account on the uses of lipases.

18. Write a note on the mechanism of action of fatty acid synthase comples.

19. Explain induced fit model of enzyme action with an example.

SECTION C — (4 × 10 = 40 marks)

Answer any FOUR questions.

Each question carries 10 marks.

20. Explain the significance of analysis the isoforms of creative kinase.

21. What are allosteric enzyme? Give the significance and regulatory functions of aspartate transcarbomylase.

22. Give an account of the structure and functions of folic acid and TPP.

23. How do enzymes increases the rate of the reaction by covalent catalysis?

24. What are designer enzymes? How do they work?

25. What are immobilisation of enzymes? Explain the method and applications enzyme immobilisation.

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