



Date: 01-11-2018

Dept. No.

Max. : 100 Marks

Time: 01:00-04:00

Part-A

Answer ALL questions.

(10 × 2 = 20)

1. What is anabolism?
2. What are essential amino acids?
3. Write the functions of isoenzymes.
4. Mention the specificity of an enzyme with an example.
5. What are derived lipids? Give an example.
6. What is hydrolytic rancidity?
7. Give any two differences between reducing and non-reducing sugars.
8. What are amylose and amylopectin?
9. Write the types of RNA.
10. Name the nitrogenous bases present in DNA.

Part-B

Answer any EIGHT questions.

(8 × 5 = 40)

11. How is alanine prepared by Gabriel phthalimide synthesis?
12. Describe N-terminal analysis of amino acid by Edman's method?
13. Draw and explain the urea cycle.
14. Derive Michalis Menten equation for an enzyme catalyzed reaction.
15. Explain any two enzyme inhibition reactions.
16. What are essential fatty acids? Mention their importance.
17. Write the biological importance of glyco- and phospho-lipids.
18. Discuss the β -oxidation of fatty acids.
19. How is the structure of glucose elucidated?
20. Explain the Embden-Meyerhoff pathway of glycolysis.
21. Explain the biosynthesis of m-RNA.
22. Draw and explain the double helical structure of DNA.

Part-C

Answer any FOUR questions.

(4 × 10 = 40)

23. a) How is protein separated and purified by dialysis?
b) Describe the denaturation of proteins with a suitable example.
24. a) Write the classification of enzymes.
b) What is enzyme immobilization? Explain its types.
25. a) What is oxidative deamination? Give an example.
b) Bring out the differences between coenzymes and cofactors.
26. Describe the TCA cycle and its energetics.
27. a) Discuss the biosynthesis of cholesterol from squalene.
b) How are triglycerides synthesized?
28. Explain the following: (a) recombinant DNA technology and (b) genetic mutation. (5+5)
