

S.No. 5712

16 SACND 3

(For candidates admitted from 2016-2017 onwards)

B.Sc. DEGREE EXAMINATION, APRIL 2022.

Part III — Allied

FUNDAMENTALS OF BIOCHEMISTRY

Time : Three hours

Maximum : 75 marks

PART A — (10 × 2 = 20)

Answer ALL questions.

1. What are hexoses? Give example.
2. What are glucogenic aminoacids? Give examples.
3. What is a peptide bond?
4. List the functions of proteins.
5. Define redox potential.
6. List the components required for synthesis of fatty acids.
7. Give the structure of purine nucleotide.
8. What are the nitrogenous bases of pyrimidine?

9. What are transferases? give example.

10. Give the Michaelis-Menton equation.

PART B — ($5 \times 5 = 25$)

Answer ALL questions. Choosing either (a) or (b).

11. (a) Explain the process of glycogenolysis.

Or

(b) Describe the glyoxylate cycle.

12. (a) Comment on the structure of oligomeric proteins.

Or

(b) How will you determine the -N terminal aminoacids in proteins.

13. (a) Summarize the biological significance of lipids.

Or

(b) Discuss the meaning and importance of electron transport chain.

14. (a) Explain the structure of DNA.

Or

(b) Explain the biosynthesis of pyrimidine nucleotides.

15. (a) Write short notes on Line weaver Bunk plot.

Or

(b) Comment on the types of inhibition of enzyme activity.

PART C — ($3 \times 10 = 30$)

Answer any THREE questions.

16. Explain the process and significance of HMP shunt pathway.

17. Discuss the classification of aminoacids in detail.

18. How are fatty acids oxidised in the body?

19. Explain the synthesis and breakdown of purine nucleotides.

20. Give a detailed account on classification of enzymes with suitable examples.