

SECTION C — ($3 \times 10 = 30$)

Answer any THREE questions.

21. Classify amino acid with proper example.
 22. Discuss the structure and forms of DNA with proper diagram.
 23. Write short notes about:
 - (a) Pituitary
 - (b) Adrenal
 - (c) Testis.
 24. Give a brief account on Sources and function of Fat-soluble vitamins.
 25. Write an essay about Major microbial pigments.
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S.No. 6930

P 22 MBCC 12

(For candidates admitted from 2022–2023 onwards)

M.Sc. DEGREE EXAMINATION, NOVEMBER 2023

Microbiology

BIOLOGICAL MACROMOLECULES

Time : Three hours

Maximum : 75 marks

SECTION A — (20 marks)

Answer ALL questions.

- I. (A) Multiple choice questions: ($5 \times 1 = 5$)
 1. Enzymes are
 - (a) Carbohydrates
 - (b) Lipids
 - (c) Protein
 - (d) minerals
 2. Lipids are dissolved in
 - (a) Water
 - (b) Oil
 - (c) Alcohol
 - (d) All
 3. Vitamin A is
 - (a) Fat Soluble
 - (b) Water Soluble
 - (c) Soluble in water and fat
 - (d) Not soluble

4. Auxin is a _____
 (a) Human hormone
 (b) Phytohormone
 (c) Present in both animal and plants
 (d) Not a hormone
5. Fe is present in
 (a) Blood (b) Chlorophyll
 (c) Both (d) Neither (a) or (b)

(B) Fill in the blanks : (5 × 1 = 5)

6. Amino acids are building blocks of _____.
7. Sugar Phosphoric acids and nitrogenous bases are present in _____.
8. Absciscic acid _____ hormone.
9. Vitamin B complex is _____ soluble Vitamin.
10. _____ is a component of blood which absorb oxygen.

II. Answer ALL questions: (5 × 2 = 10)

11. What is essential amino acid?
12. Define unsaturated fatty acids.
13. What is hormone?
14. List out the vitamin B complex members.
15. What is secondary metabolite?

SECTION B — (5 × 5 = 25)

Answer ALL questions, choosing either (a) or (b).

16. (a) Explain the tertiary structure of protein with example.

Or

- (b) Given out the classification of carbohydrates.

17. (a) Describe the structure properties and function of lipids.

Or

- (b) Write an essay about types of RNA.

18. (a) Differentiate thyroids and parathyroids.

Or

- (b) List out the functions of Auxin, Gibberellins and cytokinin.

19. (a) Write short notes on Vitamin C and Vitamin B.

Or

- (b) Point out the deficiency syndrome of minerals in humans.

20. (a) Describe the coagulation of blood? Give its significance.

Or

- (b) Briefly write about the importance of secondary metabolite.