K21P 0964

Reg. No. : .....

Name : .....

III Semester M.Sc. Degree (CBSS – Reg./Suppl./Imp.) Examination, October 2021
(2018 Admission Onwards)
Botany
BOT 3C11 : BIOCHEMISTRY AND BIOPHYSICS

Time : 3 Hours Max. Marks : 60

Instruction : *Draw diagrams* ***wherever*** *necessary.*

SECTION – A

1. a) Write an account on the classification of monosaccharides.

OR

b) Explain genetic control of immune response.

2. a) Write an account on the principle, types and applications of ion exchange chromatography.

OR

b) Write an account on the biosynthesis and significance of plant phenols. **(2×8=16)**

SECTION – B

Answer **any two**.

3. a) What is a monosaccharide ?
   b) Write the structure of starch.
   c) Write an account on gluconeogenesis. **(1+2+3)**

4. a) What is radioactivity ?
   b) Explain cryobiology.
   c) Write a brief account of Scintillation counter. **(1+2+3)**

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5. a) Define vitamin.
   b) Write the structure of Vitamin A.
   c) Explain the significance of Vitamin C. **(1+2+3)**

(2×6=12)

SECTION – C

Answer **any six**.

6. Explain gayoxylate pathway.
7. Write a brief note on structure and function of cellulose.
8. Write a note on transaminase reactions.
9. Derive Michele's Menton equation.
10. Write a note on acquired immunodeficiency.
11. Mention the principle and applications of PAGE.
12. Explain the significance of GCMS in biological research.
13. Add a note on lectins and their importance. **(6×3=18)**

SECTION – D

Answer **any seven**.

14. Peptidoglycans.
15. Protein conformation.
16. Ramachandran plot.
17. RIA.
18. Hypersensitivity.
19. Plasma emission spectroscopy.
20. Lyophiliser.
21. PET.
22. Ribozymes.
23. Circular dicroism. **(7×2=14)**
