



K23P 1371

Reg. No. :

Name :

III Semester M.Sc. Degree (C.B.S.S. – Reg./Supple./Imp.)
Examination, October 2023
(2020 Admission Onwards)
BOTANY

BOT3C11 : Biochemistry and Biophysics

Time : 3 Hours

Max. Marks : 60

Instruction : Draw diagrams *wherever necessary*.

SECTION – A

1. a) Give an account on the classifications of lipids. (2×8=16)
OR
b) Explain principle, procedure and applications of SDS PAGE.
2. a) Write the structure and function of different types of immunoglobulins.
OR
b) Explain classification, biological functions and conformations of proteins.

SECTION – B

Answer **any two**. (2×6=12)

3. a) What are vitamins ?
b) What are different classes of vitamins ?
c) Write the importance of vitamins. (1+2+3)
4. a) What are radioactive isotopes ?
b) Write their properties.
c) Write three applications radioactive isotopes in biology. (1+2+3)
5. a) What are terpenes ?
b) Write their role.
c) Explain their significance. (1+2+3)

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SECTION – C

Answer **any six**. (6×3=18)

6. Describe gluconeogenesis.
7. Define secondary metabolites. Write their significance.
8. How compounds separated in the paper chromatogram are detected ?
9. Describe the mechanism of immune response.
10. What is ELISA ? Write its applications.
11. Explain Beer-Lambert's equation. Write its applications.
12. Write the principle and applications of ultracentrifuge.
13. Explain the action of allosteric enzyme.

SECTION – D

Answer **any seven**. (7×2=14)

14. Define buffer.
15. What are lectins ?
16. What is Ramachandran plot ?
17. What is Bragg's equation ?
18. What is Lyophilization ? Write one application.
19. What are saturated fatty acids ?
20. What is autoimmunity ?
21. What is reductive amination ?
22. What is the full form of MRI ? Write one application.
23. What is abzyme ?