

THIRD SEMESTER M.Sc. DEGREE EXAMINATION, NOVEMBER 2022
(Regular/Improvement/Supplementary)

BOTANY
FBOT3C07 - PLANT PHYSIOLOGY, METABOLISM AND BIOCHEMISTRY

Time: 3 Hours

Maximum Weightage: 30

Part A: Answer any *four* questions. Each carries *two* weightage.

1. Write a note on modern theories of stomatal mechanism.
2. Explain SPAC.
3. Elaborate on genetics of nitrogen fixation.
4. Write an account on peptide bond and peptide formation.
5. Explain nitrogen base derivatives in food stuffs.
6. Give an account on factors affecting enzyme action.
7. Write a note on catabolism of lipids.

(4 × 2 = 8 weightage)

Part B: Answer any *four* questions. Each carries *three* weightage.

8. Explain the properties of water.
9. Give an account on secondary metabolites.
10. Write an account on C3 and CAM cycle.
11. Elaborate on phloem loading and unloading.
12. Discuss the structure and functions of carbohydrate derivatives.
13. Explain the mechanism of enzyme action.
14. Give an account on Hydrolysis of protein.

(4 × 3 = 12 weightage)

Part C: Answer any *two* questions. Each carries *five* weightage.

15. Describe electron transport chain in mitochondria.
16. Write a detailed account on Amino acids.
17. Explain physiology of hormones in plant growth and development.
18. Discuss catabolism of carbohydrates.

(2 × 5 = 10 weightage)