



K20P 1074

Reg. No. :

Name :

**III Semester M.Sc. Degree (CBSS – Reg./Suppl./Imp.)
Examination, October 2020
(2014 Admission Onwards)
BOTANY
BOT 3C10 : Plant Physiology**

Time : 3 Hours

Max. Marks : 60

Instruction : Draw diagrams *wherever* necessary.

SECTION – A

1. a) Write an account on the active transport.
OR
b) Explain the mechanism of water uptake in plants.

2. a) Write an account on the dark reactions in plants.
OR
b) Explain nitrogen assimilation and transfer in plants.

(2×8=16)

**SECTION – B
(Answer any two)**

3. a) Differentiate symport from antiport.
b) Explain facilitated diffusion.
c) Which are the mobile elements ?
4. a) What is photorespiration ?
b) Mention its significance.
c) Write on photosynthetic efficiency of C₄ plants.
5. a) What are salt glands ?
b) Write on their significance in salt tolerance.
c) Write on salt resistant transgenics.

(1+3+2)

(1+2+3)

(1+3+2)

(2×6=12)

P.T.O.

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SECTION – C
(Answer any six)

6. Write on different types of water present in the soil.
7. Write on antitranspirants and their significance.
8. Explain electron transport system.
9. Explain Citric acid cycle.
10. Describe physiology of senescence.
11. Explain the process of mobilisation of stored food during germination.
12. Discuss different types of growth curves.
13. Explain sulphur metabolism. (6×3=18)

SECTION – D
(Answer any seven)

14. Sunken stomata.
15. Nutrient solution.
16. Antenna molecules.
17. HCN.
18. Germination inhibitors.
19. Relative growth rate.
20. Nutrient cycling.
21. Nitrogenase.
22. Cytokinin.
23. Fruit ripening. (7×2=14)

(1+3+2)

(2+6=12)

P.T.O.