K22U 2285

Reg. No. : ....

Name : ....

V Semester B.Sc. Degree (CBCSS – OBE – Regular/Supplementary/ Improvement) Examination, November 2022

(2019 Admission Onwards)

Core Course in Botany/Plant Science

5B07BOT/PLS – PLANT PHYSIOLOGY AND METABOLISM

Time : 3 Hours

Max. Marks : 40

PART – A

(Objective Type Questions)

Answer **all** :

(4×1=4)

1. Main force behind passive absorption of water by root is
   a) Root pressure
   b) Transpiration pull
   c) Evaporation
   d) Capillary force

2. Living cells are not essential for
   a) Transpiration
   b) Guttation
   c) Evaporation
   d) None of the above

3. Calcium is an important constituent of
   a) Primary cell wall
   b) Middle lamella
   c) Secondary cell wall
   d) Tertiary cell wall

4. Photosynthesis is
   a) Catabolic process
   b) Anabolic process
   c) Amphibolic process
   d) None of the above

PART – B

(Short Essay Questions)

Answer **any eight** :

(8×2=16)

5. Describe imbibition.

6. What is Red drop ?

7. Explain Hygroscopic movement.

P.T.O.

8. Write notes on co-enzymes.

9. Distinguish between mono and disaccharides.

10. What are antitranspirants ?

11. Comment on micro nutrients.

12. Explain photorespiration.

13. What are photosynthetic pigments ?

14. Mention the biological functions of lipids.

15. What are CAM plants ?

16. Describe denaturation of proteins.

PART – C

(Essay Questions)

Answer **any four** :

(4×3=12)

17. Write a brief account on transpiration.

18. Briefly explain phytochromes and their role.

19. Give an account on Ascent of sap.

20. Explain the factors affecting enzyme activity.

21. Comment on the classification of protein based on structure.

22. Write a brief account on IUB system of enzyme classification.

PART – D

(Long Essay Questions)

Answer **any one** :

(8×1=8)

23. Describe the citric acid cycle. Add a note on the factors affecting respiration.

24. What are growth hormones ? Write a brief account of various growth hormones.

25. Write an account on lipids and its classification.

_____