

C 20534

(Pages : 2)

Name.....

Reg. No.....

SIXTH SEMESTER U.G. DEGREE EXAMINATION, MARCH 2022

(CBCSS-UG)

Botany

BOT 6B 12—PLANT PHYSIOLOGY AND METABOLISM

(2019 Admissions)

Time : Two Hours

Maximum : 60 Marks

Section A*Answer atleast eight questions.**Each question carries 3 marks.**All questions can be attended.**Overall ceiling 30.*

1. Define SPAC.
2. Define Imbibition.
3. Define Transpiration pull.
4. Differentiate passive and active transport.
5. Explain RUBISCO.
6. Define photorespiration.
7. Explain pressure flow hypothesis.
8. Define phototropism.
9. Differentiate anabolism and catabolism.
10. What is redox potential ?
11. Describe Chemiosmotic hypothesis.
12. What is β oxidation ?

(8 × 3 = 24 marks)

Turn over

Section B

*Answer atleast five questions.
Each question carries 5 marks.
All questions can be attended.
Overall ceiling 25.*

13. Explain K^+ ion exchange theory.
14. Explain water absorption mechanism in plants with the sport of Cohesion-tension theory.
15. Write an account on ecological significance of C4 and CAM metabolism.
16. Write an account on any *three* plant growth hormones.
17. Describe phloem transport in plants.
18. Write an account on *two* glycolysis.
19. Write an account on electron transport mechanism in mitochondrion.

(5 × 5 = 25 marks)

Section C

*Answer any one questions.
Each question carries 11 marks.*

20. Write an account on cyclic and non-cyclic photophosphorylation in plants. Add a note on assimilatory powers.
21. Explain biological nitrogen fixation in plants. Add a note on ammonia assimilation.

(1 × 11 = 11 marks)