Reg No : ....

Name : ....

B.Sc DEGREE (CBCS) SPECIAL SUPPLEMENTARY EXAMINATION, JULY 2021

Fifth Semester

CORE COURSE - BO5CRT07 - PLANT PHYSIOLOGY & BIOCHEMISTRY

Common to B.Sc Botany and Biotechnology Model III Double Main, B.Sc Botany Model I, B.Sc Botany Model II Environmental Monitoring And Management, B.Sc Botany Model II Food Microbiology, B.Sc Botany Model II Horticulture and Nursery Management & B.Sc Botany Model II Plant Biotechnology

2018 Admission Only

4A148A6E

Time: 3 Hours

Max. Marks : 60

Part A

*Answer any **ten** questions.*

*Each question carries **1** mark.*

1. What are Guard cells?

2. Distinguish between Essential and Non-essential elements.

3. Which is the metal ion present in the Chlorophyll molecule?

4. Which is the first stable product of C3 cycle?

5. Explain the terms Source and Sink in transclocation

6. Name a gaseous phytohormone.

7. What is Seismonasty?

8. What is biotic stress?

9. What is hydrogen bonding?

10. Distinguish between essential and non- essential aminoacids.

11. Who first discovered the secondary structure of proteins?

12. Write an example of Competitive inhibition.

(10×1=10)

Part B

13. Explain the concept of plasmolysis with diagram.

14. Draw Z -Scheme in Light reaction.

15. List out the difference between C4 and CAM cycle.

16. Draw the scheme of Glycolysis and list out its characteristic features.

17. Explain oxidative decarboxylation in respiration.

18. Write a short note on Chemi-osmotic hypothesis by Peter Mitchel.

19. Explain various types of Glycosidic bonds.

20. Enlist five differences of Saturated and unsaturated fatty acids.

21. Explain induced fit theory of enzyme action with diagram.

(6×5=30)

Part C

*Answer any **two** questions.*

*Each question carries **10** marks.*

22. Explain active and passive mechanisms of water absorption in plants.

23. Explain various factors affecting photosynthesis.

24. Explain alcoholic and lactic acid fermentation. How efficient they are?

25. Explain the naming and classification of enzymes.

(2×10=20)