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(20425) Roll No.
B.Sc. (Bio-Tech.)-II Year

3471

**B.Sc. (Biotechnology)
Examination, April-2025**

PLANT PHYSIOLOGY

(B-208)

(B.Sc. Biotech.)

Time : Three Hours] [Maximum Marks : 50

Note : Attempt any **five** questions. **All** questions carry equal marks.

1. Write detailed note the following:
5×2=10
 - (a) Oxidative phosphorylation
 - (b) Physiological role of Auxin
2. Discuss the mechanisms of absorption of mineral salts by plants. How does it differ from absorption of water? 10

P.T.O.

3. Describe the process of Biological Nitrogen Fixation by the plants? 10

4. Write short notes on any **two** of the following: 5×2=10

(a) Difference between C₃ and C₄ cycles?

(b) Vernalisation

(c) Photo respiration

5. Describe Kerbs cycle in detail along with energetics. 10

6. (i) Discuss significance of senescence in plants? 5×2=10

(ii) Enlist cause of dormancy in plants seeds?

7. Define the photosynthesis and explain the mechanisms of light reaction? 10

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8. Write short notes on any **two** of the following: $5 \times 2 = 10$

(a) Measurement of growth in plants

~~(b)~~ Micronutrients

~~(c)~~ Deficiency symptoms of any four macronutrients.

9. Write short notes on any **two** of the following: $5 \times 2 = 10$

(a) Photosynthetic pigments

(b) Compensation point

(c) Factors affecting photosynthesis

10. (i) Discuss the role of the Forigen in flowering. 4

(ii) What is vernalisation. 3

(iii) Differentiate between phototropism and Geotropism. 3