

(i) Printed Pages : 4

Roll No.

(ii) Questions : 9

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B.A./B.Sc. (General) 5th Semester
(2125)

BOTANY

Paper- A : Plant Physiology—I (Theory)

Time Allowed : Three Hours]

[Maximum Marks : 36

Note :— Attempt 5 questions in all. Question 1 is compulsory and is of 8 marks, comprising 4 MCQ's & 4 Fill in the blanks. Attempt 4 more questions selecting 1 each from Units I to IV carrying 7 marks each.

1. A. Tick the correct answer (MCQs) :

1. Plasmolysis occurs as a result of

- (a) Endosmosis (b) Exosmosis
(c) Diffusion (d) Imbibition

2. Which of the following is a Macronutrient ?

- (a) Ca (b) Iron
(c) Mo (d) Mn

3. Rhizobium is
- (a) Gram +ve & Symbiotic Bacteria
 - (b) Gram -ve & Nonsymbiotic Bacteria
 - (c) Fungus
 - (d) Leguminous plant
4. Proteinaceous Part of Holoenzyme is called
- (a) Zymogen
 - (b) Apoenzyme
 - (c) Coenzyme
 - (d) Prosthetic group
- 4

B. Fill in the blanks :

5. Imbibitional Pressure is also known as
6. Whiptail is a deficiency disorder in plants, caused due to the deficiency of
7. Group of Enzymes which catalyse the reaction by the addition or removal of water, is called
8. Oxygen scavenger pink pigment found inside root nodule is 4

UNIT—I

2. (a) What is Osmosis? Explain in detail what will happen to a Plant cell when it is placed in Hypertonic and Hypotonic solution. 4
- (b) Write a short note on Imbibition and its significance. 3

3. (a) Describe K ion pump hypothesis mechanism for the opening & closing of stomata. 5
- (b) Write a note on Root Pressure. 2

UNIT—II

4. (a) Describe different theories for the Active Uptake of ions by roots. 5
- (b) Write the meanings of these symptoms: Chlorosis, Necrosis, Stunted Growth & Wilting. 2
5. (a) What are essential elements? Differentiate between Macro & Micro Nutrients. Write the role of K to the plants. 5
- (b) Draw labeled diagram of Hydroponic bottle. 2

UNIT—III

6. (a) Describe the formation of Ammonia from Nitrogen inside root nodule. 5
- (b) Draw a labelled diagram of internal structure of Leguminous root nodule. 2
7. (a) What are Lipids? Give a detailed account of their classification. 5
- (b) Differentiate between Saturated & Unsaturated Fatty acids. 2

UNIT—IV

8. (a) What are Proteins? Classify proteins on the basis of their structure with examples. 5
- (b) Write any 4 importances of Proteins. 2
9. (a) What is Enzyme Inhibition? Describe its types with examples. 5
- (b) Write a note on Active site of Enzymes. 2

UNIT—III

- (a) Describe the formation of Amino acids from Nitrogen oxide
- (b) Describe the formation of Amino acids from Nitrogen oxide
- (c) Describe the formation of Amino acids from Nitrogen oxide
- (d) Describe the formation of Amino acids from Nitrogen oxide
- (e) Describe the formation of Amino acids from Nitrogen oxide
- (f) Describe the formation of Amino acids from Nitrogen oxide
- (g) Describe the formation of Amino acids from Nitrogen oxide
- (h) Describe the formation of Amino acids from Nitrogen oxide
- (i) Describe the formation of Amino acids from Nitrogen oxide
- (j) Describe the formation of Amino acids from Nitrogen oxide
- (k) Describe the formation of Amino acids from Nitrogen oxide
- (l) Describe the formation of Amino acids from Nitrogen oxide
- (m) Describe the formation of Amino acids from Nitrogen oxide
- (n) Describe the formation of Amino acids from Nitrogen oxide
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- (p) Describe the formation of Amino acids from Nitrogen oxide
- (q) Describe the formation of Amino acids from Nitrogen oxide
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- (s) Describe the formation of Amino acids from Nitrogen oxide
- (t) Describe the formation of Amino acids from Nitrogen oxide
- (u) Describe the formation of Amino acids from Nitrogen oxide
- (v) Describe the formation of Amino acids from Nitrogen oxide
- (w) Describe the formation of Amino acids from Nitrogen oxide
- (x) Describe the formation of Amino acids from Nitrogen oxide
- (y) Describe the formation of Amino acids from Nitrogen oxide
- (z) Describe the formation of Amino acids from Nitrogen oxide