UG (CBCS) EVEN SEMESTER EXAMINATION, 2024

EDUCATION
(B.Sc. B.Ed.)

4th Semester

Course No. : BSBH – 401
(Plant Physiology & Bio Chemistry)

Full Marks : 50
Pass Marks : 20

Time : 2 hours

The figures in the margin indicate full marks for the questions

(*Answer five questions*)

1. (a) Differentiate between osmosis and diffusion. 5

   (b) Describe the active theory of water absorption in plants. 5

Or

2. (a) Differentiate between diffusion presure deficit (DPD) and water potential. 5

   (b) Explain the factors affecting transpiration. 5

3. (a) Explain the mechanism of stomatal movement. 6

   (b) Describe Blackmon's law of limting factor. 3

   (c) There are two cells: Cell A has solute potential of 5 balls and pressure potential of 7 balls. Cell B has solute potential of 5 bars and pressure potential of 9 bars. In which direction, water will move? 2

(*Turn Over*)

Or

4. (a) What is meant by mineral nutriens? Enumerate the deficiency symptoms and functions of Boron, Iron and Molybdenum in plants. 1+4=5

   (b) Why osmosis is important for plants? 2

   (c) Describe the anti-transpirants. 3

5. Write note on :

   (a) Photorespiration 5

   (b) Pentose phosphate pathway

Or

6. Write note on :

   (a) Hatch-Slack Kortschak pathway 5

   (b) Theories of Phloem translocation 5

7. (a) Describe different types of protein structure. 5

   (b) Explain factors affecting enzyme activity. State physiochemical properties of enzyme. 3+2=5

Or

8. (a) How carbohydrates can be classified. Give function of each with examples. 5

   (b) Explain protein degradation. 5

9. Write note on :

   (a) Plant senescence 5

   (b) Abscisic acid (ABA) 5

Or

10. Write note on :

   (a) Plant movements 5

   (b) Seed dormancy 5

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