

UG 5th Semester Examination 2021

BOTANY(Honours)

Paper : DC-11

[CBCS]

Full Marks: 25

Time: Two Hours

1. Answer any *five* questions of the following: 1×5=5
- (a) What are aquaporins?
 - (b) What are cryptochromes?
 - (c) Define diffusion pressure deficit.
 - (d) What is critical day length?
 - (e) Mention the structural difference between carrier and channel.
 - (f) Name one steroidal plant hormone.
 - (g) What is 'assimilates partitioning'?
2. Answer any *four* questions of the following: 3×4=12
- (a) State the deficiency symptoms of Nitrogen and Potassium. (1.5+1.5)
 - (b) Discuss cohesion tension theory in relation to the ascent of sap in plants.
 - (c) What do you mean by active transport? State the difference between symport and antiport channel with example. (1+2)
 - (d) Write in brief the role of K⁺ ion in stomatal movement.
 - (e) Briefly enumerate the structural properties of phytochrome.
 - (f) Write GA₃ induced carbohydrate mobilization during seed germination.
 - (g) What are the advantages of seed dormancy?
3. Answer any *one* question of the following: 8×1=8
- (a) Name one natural and one synthetic auxin. Discuss the physiological roles of auxins in plants. (2+6)
 - (b) Write short notes on: (2×4)
 - i. Zeatin
 - ii. DELLA proteins
 - iii. Munch hypothesis
 - iv. Chlorosis