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UG/5th Sem/Bot(H)/T/19

2019

B.Sc. (Honours)

5th Semester Examination

BOTANY

Paper - C12T

(Plant Physiology)

Full Marks : 40

Time : 2 Hours

The figures in the margin indicate full marks.

*Candidates are required to give their answers
in their own words as far as practicable.*

Group - A

Answer any *five* questions from the following.

2×5=10

1. (a) What is water Potential / ψ_w ?
- (b) What are the differences between apoplast and symplast ?
- (c) Write the criteria of essentiality of an element.

[Turn Over]

(2)

- (d) What is climacteric respiration ?
- (e) What is Biological clock ? Give the full form of "FLC" ?
- (f) What is the chemical nature of Gibberellins ?
- (g) What is Richmond-Lang effect ?
- (h) What are the differences between active and passive absorption ?

Group - B

Answer any *four* questions from the following.

5×4=20

21. (a) Write the Physiological role of phosphorus and calcium. What is facilitated diffusion ? 2+2+1
- (b) What are Brassinosteroids ? State their functions. 2+3
- (c) What are the causes of seed dormancy ?
Mention two advantages of seed dormancy. 4+1
- (d) How is K^+ important for stomatal opening ?
State the use of antitranspirants. 3+2

(3)

(e) Write two carrier system project for transport of ions. 2½+2½

(f) What is Phloem loading and unloading ? Give a brief account on phloem loading with figure.

2+3

Group - C

Answer any *one* question from the following.

10×1=10

3. (a) Discuss the role and importance of ABA in water stress. Write the role of ethylene in seedling growth and emergence. 5+5

(b) Write short notes on Phototropins and Cytochromes. Write the cohesion tension theory. Mention the merits and demerits of the theory.

2½+2½+3+2
