



BRAINWARE UNIVERSITY

Term End Examination 2023-2024

Programme – B.Sc.(Ag)-Hons-2022/B.Sc.(Ag)-Hons-2023

Course Name – Fundamentals of Crop Physiology

Course Code - CC-BAG277(T)

(Semester II)

Full Marks : 50

Time : 2:0 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 20=20

1. Choose the correct alternative from the following :

(i) Which among the options are best appropriate for the following definition- 'Movement of solute particle continued from a higher concentration to its lower concentration area till the equilibrium is achieved'.

- | | |
|----------------|------------------|
| a) Plasmolysis | b) Transpiration |
| c) Osmosis | d) Diffusion |

(ii) Which hormone induces flowering in plant ?

- | | |
|-------------|-------------|
| a) Floret | b) Florin |
| c) Florigen | d) Ethylene |

(iii) In which type of plant, critical photoperiod should always be extended ?

- | | |
|-------------------------|-------------------------|
| a) Short day plant | b) Long day plant |
| c) Short long day plant | d) Long short day plant |

(iv) Identify the acid, which is synthesized at night reduces the cell pH and helps the stomata to become close.

- | | |
|-----------------|------------------|
| a) Pyruvic acid | b) Carbonic acid |
| c) Acetic acid | d) None of these |

(v) In TCA cycle, how many number of ATP is synthesized from single molecule of Glucose ?

- | | |
|-------|-------|
| a) 4 | b) 8 |
| c) 18 | d) 24 |

(vi) Where the highest rate of transpiration is taken place?

- | | |
|-----------------------------|----------------------------|
| a) Stomatal transpiration | b) Cuticular transpiration |
| c) Lenticular transpiration | d) Hydathode transpiration |

(vii) Formulae of Graham's law on diffusion is identified as -

(Short Answer Type Questions)

2.5 x
10=25

2. Construct a list for criteria for essentiality of elements. (2.5)
3. Classify the plant nutrients based on their biochemical role and physiological function. (2.5)
4. What is Osmotic Pressure? Give example. (2.5)
5. What are the deficiency symptoms of N (2.5)
6. Recall the importance of crop physiology in agriculture. (2.5)
7. Mark diferent examples of growth retardants. (2.5)
8. Summarize the functions of cell nucleus (2.5)
9. Outline the phases of growth for plants. (2.5)
10. Interpret about active transport mechanism of plants. (2.5)
11. Categorize the two types of respiration. (2.5)

OR

Factors affecting take part in Respiration in Plants (2.5)

Group-C

(Long Answer Type Questions)

5 x 1=5

12. Discuss about glycolysis (With figure) (5)

OR

Elaborate the Physiological role of cytokinin. (5)
