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SUBJECT CODE NO: - Y-2064
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. S.Y (Sem-IV)
Examination March / April - 2023
Botany Paper- XII Plant Physiology

[Time: 1:30 Hours]

[Max. Marks: 50]

Please check whether you have got the right question paper.

N. B

1. Attempt all questions.
2. Illustrate your answer with suitable labelled diagram.

Q1 What is imbibition? Describe imbibition with respect to the osmotic effect and its Quantitative aspects? 20

OR

Discuss briefly mechanism of opening and closing of stomata and describe classical theory of its mechanism?

Q2 Define growth. Discuss various phases of growth? 20

OR

Write short notes on (any four)

- a) Apo enzyme
- b) Cytokining
- c) CAM pathway
- d) ATP
- e) Carrier concept
- f) Mass flow hypothesis

Q3 Multiple choice questions. 10

1. The site of photosynthesis is -----
 - a) Chloroplast
 - b) Mitochondria
 - c) Endoplasmic reticulum
 - d) Nucleus
2. End product of Calvin cycle is -----
 - a) PGA
 - b) ADP + NADP
 - c) RUBP
 - d) PGAL
3. The nature of enzyme is -----
 - a) Lipid
 - b) Vitamins
 - c) Carbohydrate
 - d) Protein

4. First phase of plant growth is -----
 - a) Cell formation phase
 - b) Cell differentiation phase
 - c) Cell elongation phase
 - d) None of the above

5. Transport of photosynthesis from mesophyll chloroplast to the phloem of mature leaves is -----
 - a) Phloem loading
 - b) Phloem unloading
 - c) Both a & b
 - d) None of the above

6. ----- of the following is a macronutrient.
 - a) Chlorine
 - b) Magnese
 - c) Zinc
 - d) Phosphorous

7. Osmosis is a special kind of -----
 - a) Regulation
 - b) Absorption
 - c) Diffusion
 - d) Adsorption

8. Uptake of water from soil by root is called as -----
 - a) Ascent of sap
 - b) Absorption of water
 - c) Both a and b
 - d) None of the above

9. End product of krebs cycle is -----
 - a) CO₂ and H₂O
 - b) FADH₂
 - c) NADH
 - d) All of these

10. Who discovered the process of photophosphorylation?
 - a) Warburg
 - b) Arnon
 - c) Calvin
 - d) Priestley