K25FY3136 Pages: 2 Reg No:.....
Name:.....

Third Semester FYUGP Degree (Reg) Examination
NOVEMBER 2025
KU3DSCFOR201 - TREE PHYSIOLOGY

2024 Admission onwards

Time : 1.5 hours Maximum Marks : 50

Section A

Answer any 6 questions. Each carry 2 marks.

1. Name three types of plants based on water availability
2. Define stress physiology
3. What are plant growth regulators?
4. List three functions of auxin in plant development.
5. What is transpiration
   Why does plant need transpiration?
6. Name any three nutrient deficiency symptoms of trees
7. Identify three c3&c4 plants
8. Identify the major enzyme complexes in ETS

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Section B

Answer any 4 questions. Each carry 6 marks.

9. Analyze the factors affecting the efficiency of water transport in trees.
10. Develop a case study showing transpiration rate of tree species in tropical rain forest
11. Explain the process of nutrient uptake in forest trees.
12. Analyze how the rate of photosynthesis is affected by changes in light intensity and CO concentration.
13. Create a flowchart of the process Glycolysis and describe its importance in both aerobic and anaerobic organisms
14. Compare and contrast the processes of photosynthesis and respiration in terms of energy flow

Section C

Answer any 1 questions. Each carry 14 marks.

15. How can knowledge of stress physiology be applied in crop improvement programs Discuss how plants are selected or genetically modified for resistance to drought, salinity, and temperature stress.

16. Describe how knowledge of both natural and artificial plant growth regulators can be applied in agriculture and Give examples of at least three practical uses.

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