

**KERALA AGRICULTURAL UNIVERSITY**  
**B.Sc (Hons.) Forestry 2015 Admission**  
**I<sup>st</sup> Semester Final - Examination- March-2016**

Cat. No:Tpbr.1102

Marks: 50.00

Title: Elementary Tree Physiology (1+1)

Time: 2 hours

**I Fill up the blanks**

(10 x 1=10)

1. First formed stable carbon compound in C3 photosynthetic pathway is \_\_\_\_\_
2. The size of provacuoles is \_\_\_\_\_ than vacuoles
3. \_\_\_\_\_ forms ground tissue while \_\_\_\_\_ is a conductive tissue
4. \_\_\_\_\_ and \_\_\_\_\_ are the components of water potential
5. \_\_\_\_\_ is a mobile element while \_\_\_\_\_ is immobile in nature
6. Senescence is \_\_\_\_\_ (hormone) induced phenomenon
7. Major substrate of respiration in plants is \_\_\_\_\_
8. Bulk flow of water occurs due to \_\_\_\_\_ and \_\_\_\_\_ gradients
9. High tensile strength of water column in the xylem tissue due to \_\_\_\_\_ and \_\_\_\_\_ forces
10. Photo respiration is also called as \_\_\_\_\_ pathway

**II Write short notes on any FIVE questions**

(5 x 2=10)

1. Important organelles of cell
2. Different types of plant tissue
3. Structure of water molecules
4. Source sink relationship
5. Absorption of water by roots
6. Juvenile and reproductive phase
7. Canopy structure

**III Write short essay on any FIVE questions**

(5 x 4=20)

1. Structure of water molecules and special properties of water
2. Environmental effects on growth development
3. Basic concepts of solar radiation
4. Canopy structure, phyllotaxis and its importance in translocation
5. Enzymes and its classifications
6. Role of tree in pollution control
7. Light use efficiency in forest species

Write an essay on any ONE

Differentiate between C3 and C4 photosynthetic pathway

Describe three major sets reactions in the respiration pathway