



KERALA AGRICULTURAL UNIVERSITY
B.Sc. (Hons.) Forestry 2016 Admission
III Semester Final Examination-February-2018
Wood Science and Technology (2+1)

Fopu.2102

Marks: 50
Time: 2 hours
(10x1=10)

I Fill in the blanks

- 1 Runkel ratio = -----
- 2 Reaction wood in conifers is called -----
- 3 Fibre saturation point (FSP) is defined as -----
- 4 Downward translocation of organic solutes in a living tree takes place through ----- and ascent of sap takes place through -----
- 5 ----- and ----- are the commonly used adhesives in the manufacture of glued laminated timber.

State True or False

- 6 In cross grained wood, the fibre alignment of cells is parallel to the long axis.
- 7 Basic structural unit of lignin is galactose.
- 8 In conifers, the tracheids are connected to adjacent cells through bordered pits.
- 9 Microfibrillar angle is a most important characteristic that affects the dimensional stability of wood.
- 10 CCA is an oil-borne preservative used for treatment of perishable timbers.

II Write Short notes on any FIVE of the following

(5x2=10)

- 1 Cell organisation in the vascular cambium
- 2 Dendroclimatology
- 3 Fibre stress at proportional limit (FSPL)
- 4 Some hardwoods are softer than softwoods.
- 5 What are the different wood preservation methods ?
- 6 Characteristics of tension wood
- 7 The principal cell types of softwoods and hardwoods

III Answer any FIVE of the following.

(5x4=20)

- 1 Fibre morphology in relation to suitability for pulp and paper
- 2 Biological degradations of wood
- 3 Defects in wood due to kiln drying
- 4 Bending of solid wood, methods and the properties of bent wood
- 5 Wood figure
- 6 Juvenile vs. Mature wood
- 7 Cell walls in wood

IV Write an essay on any ONE of the following

(1x10=10)

- 1 What are the different types of kiln seasoning of wood and the its advantages
- 2 Structure of monocot wood with special reference to palms and bamboos.
