

KERALA AGRICULTURAL UNIVERSITY

B.Sc.Hons (Forestry) 2014 Admission

IIIrd Semester Final Examination-February -2016

Cat. No: Tpbr. 2106

Marks: 50.00

Title: Principles of Tree Improvement (2+1)

Time: 2 hours

I Answer all Questions

(10 x 1=10)

1. IFGTB stands for _____
2. _____ is the name of the famous book written by Zobel and Talbert on tree improvement
3. Tissue culture is a macro propagation method (True/False)
4. Teak is monoecious and self incompatible (True/False)

Define

5. Hybrid
6. Provenance
7. Clone
8. Mass selection
9. Elite tree
10. Mutation

II Answer any Five questions

(5 x 2=10)

1. Differentiate between seed production area and seed orchard
2. Land race concept
3. Heritability
4. Differentiate between GCA and SCA
5. Give an account of polyploidy
6. Relation of tree improvement with silviculture
7. Pollination in tree species

III Write short essays any Five questions

(5 x 4=20)

1. Give an account of exotic forestry. What are its gains and risks?
2. Blister bark disease is a serious problem in *Casuarina equisetifolia* plantations. Develop a breeding programme to address this issue
3. Incompatibility issues in tree species
4. What is regression selection? Explain when it is used
5. Indirect selection
6. Heterosis breeding
7. Additive and dominant gene action

IV Write essay on Any ONE

(1 x 10=10)

1. Biotechnological approaches to tree breeding
2. Prospects of tree improvement and special problems associated with it