

# KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Forestry. 2013 Admission

III<sup>rd</sup> Semester Final Examination- February-2015

Cat. No: Tpbr.2106

Marks: 50

Title: Principles of tree improvement (2+1)

Time: 2 hours

I) Fill in the blanks

(10 x 1=10)

1. \_\_\_\_\_ tried hybridization in Populus tree species
2. \_\_\_\_\_ and \_\_\_\_\_ are pioneer workers of Forest genetics in India
3. Number of meiotic divisions involved in Megagametogenesis is \_\_\_\_\_
4. In recurrent Apomixis, unreduced embryo sacs are produced by a process known as \_\_\_\_\_
5. \_\_\_\_\_ is the example of geitonogamy
6. \_\_\_\_\_ did progeny testing in plants
7. Non additive variance can be divided into \_\_\_\_\_ and \_\_\_\_\_
8. \_\_\_\_\_ developed first transgenic forest tree

State True or False

9. Variability present in forest trees can't be separated into Genetic variability and Environmental variability
10. An allele present on one locus influencing the expression of the other allele present on another locus is termed as dominance gene action

II Write short notes on any FIVE

(5 x 2=10)

1. Land Race
2. Heterosis
3. Combining Ability
4. Additive Gene Action
5. Problem associated with Tree Improvement
6. Quantitative Inheritance
7. Seed production Areas

III Write short essays on any FIVE of the following

(5 x 4 =20)

1. Racial variation
2. Mechanisms favouring cross pollination
3. Variation in natural stands
4. Heritability and its significance
5. Exotic Forestry
6. Back Cross Breeding
7. Evolutionary forces / Factors affecting variation

**IV Write essay on ANY ONE**

**(1 x 10=10)**

1. Germplasm Conservation
2. Selection methods

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