### KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Forestry. 2012 Admission V  $^{\text{th}}$  Semester Final Examination- February-2015

Cat. No: Fmau.3106

Marks: 80

Title: Tree propagation and nursery Technology (1+1)

Time: 3 hours

#### I) State whether True or False

 $(10 \times 1=10)$ 

- 1. Shade houses act as an intermediate stage between green house and field planting
- 2. Auxin induces lateral bud formation
- 3. Usually one to two year old shoot portion is used for air layering
- 4. ABA antagonizes the effect of Giberellic acid
- 5. Cytokinin promotes apical dominance
- 6. In apospory embryo sac develops from vegetative cell of the ovule
- 7. Autograft is a graft derived from the tissue of the recipient
- 8. Parthenocarpy is the production of fruit after fertilization
- 9. Stolon is a trailing stem capable of producing roots and shoots from the node
- 10. Broad leveled plants with iron deficiency shows chlorosis

#### II Write short notes on any TEN

 $(10 \times 3=30)$ 

- 1. Fertigation and its advantages
- 2. Types of germination
- 3. Softwood and hardwood stem cuttings
- 4. Differentiate between apomixes and parthenocarpy
- 5. Conditions for successful grafting
- Techniques for retaining seed viability
- 7. Mulching
- 8. Recalcitrant seeds
- 9. Mist propagation
- 10. Root suckers
- 11. Stock-scion incompatibility
- 12. Seed certification

# III Write short essays on any SIX of the following

 $(6 \times 5 = 30)$ 

- 1. Role of growth regulators in propagation
- 2. Different factors affecting rooting of cuttings
- 3. Anatomical and Physiological aspects of graft union
- 4. Green houses

- 5. Merits of seed propagation
- 6. Different methods of layering
- 7. Propagation by naturally occurring special plant parts
- 8. Components and design for commercial tree nurseries

## IV Write essay on ANY ONE

(1 x 10=10)

- 1. Different method of grafting and budding techniques
- 2. Principles and practices involved in site selection and lay out of nursery

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