



KERALA AGRICULTURAL UNIVERSITY
B.Sc. (Hons.) Forestry 2016 Admission
III Semester Final Examination-February-2018

Safo.2105

Forest Seed Technology (2+1)

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

I Fill in the blanks

- 1 -----provides hardness and rigidity to seed coat.
- 2 Cotyledons are -----
- 3 Germination, genetic purity, physical purity, ----- and seed health are the essential qualities of seed.
- 4 Heterostyly favours -----
- 5 After physiological maturity seed quality will be -----

Choose the Correct Answer

- 6 Synergids and antipodals in the embryo sac directly proliferate into an embryo:
a Adventive embryony b Disposory c Apogamy
d a and c but not b e All the above
- 7 Mega gametophyte is the
a Ovule b Embryosac c Ovary
d All the above e Pistil
- 8 Pollination by snails and slugs:
a Malacophily b Phaleanophily c Mermicophily d Anthrophily
- 9 The triploid endosperm nucleus is called the-----
a Polar nuclei b Primary endosperm nucleus
c Secondary nucleus d Egg nucleus e Sperm
- 10 Flowers with the androecium or gynoecium whorl missing is termed-----
a Perfect b Imperfect c Incomplete flowers d Complete flower.

Write Short notes on ANY FIVE of the following

(5x2=10)

- 1 Parthenogenesis vs Psuedogamy. How does it affect seed production in a cross-pollinated crop?
- 2 What is equilibrium moisture content of the seed
- 3 Recalcitrant seeds vs Orthodox seeds with example
- 4 What are the basic principles of seed cleaning?
- 5 Incubation- drying separation (IDS) method of seed treatment
- 6 What is seed processing? How is dockage removed from a seed lot?
- 7 Is there a need to store the seeds?

P T O

III Answer ANY FIVE of the following

(5x4=20)

- 1 Seed appendages and their purpose
- 2 What is seed packing? What are the factors deciding the quantity of seed to be packed in each seed pack and the types of seed packing materials available?
- 3 Effect of temperature, humidity and seed moisture on seed storability
- 4 Methods of drying orthodox seeds
- 5 Elaborate one of the indirect tests for seed viability adopted in forest species
- 6 Enumerate the various approaches to conserve recalcitrant seeds species
- 7 Elaborate the type of germination observed in forest species. Substantiate with appropriate diagrammes and examples.

IV Write an essay on ANY ONE of the following

(1x10=10)

- 1 What is seed dormancy? How different is it from the phenomenon of quiescence? Classify dormancy and elaborate the methods to overcome seed dormancy.
- 2 What are the techniques that can be resorted to for seed quality enhancement? Give special emphasis on seed priming and seed coating treatments.
