

# KERALA AGRICULTURAL UNIVERSITY

B.Sc (Hons.) Ag. 2011 Admission

VI<sup>th</sup> Semester Final Examination- July /August -2014

Cat. No: Pbg.3205

Title: Principles of Seed technology (1+1)

Marks: 80

Time: 3 hours

## I. Multiple choice/ Fill in the blanks (Question Number 1 to 10)

(10x1=10)

1. Seeds fail to germinate under unfavourable environment is termed as  
a) Orthodox seeds    b) Recalcitrant seeds    c) Quiescent seeds    d) Hard seeds
2. The test required for granting protection of a new variety under PPV& FRA 2001 is  
a) DUS    b) VCU    c) GOT    d) All of them
3. Grow-out test is conducted to determine  
a) Germination    b) Seed vigour    c) Moisture content    d) Genetic purity
4. Seed processing can improve  
a) Physical purity    b) Genetic purity    c) Moisture    d) All of them
5. A seed lot will be eligible for extension of validity period  
a) For initial nine months only    b) For one year    c) For two years    d) As long as it conforms to prescribed seed standards
6. The permissible limit of seed lot in maize is ..... kg.
7. India has developed a ..... system of Plant Breeders' Rights.
8. The permanent secretariat of ISTA is at .....
9. Cultivar purity or genuineness of cultivar is tested by means of ..... characters
10. .... samples are those submitted by a farmer, seed grower or seed farm and have no official status.

## II. Write short notes on ANY TEN (Question Number 1 to 12)

(10x3=30)

1. Seed dormancy
2. Truthful labeling
3. Central Varietal Release Committee
4. Carry over seeds
5. Seed distribution systems in India
6. Seed pelleting
7. Farmers' Rights
8. Roguing
9. Desiccants
10. Methods of increasing out crossing rate in Paddy
11. Seed conditioning
12. Role of natural out crossing in varietal deterioration

III. Write short essays on ANY SIX of the following (Question Number 1 to 8)  
(6x5=30)

1. Briefly explain the multiplication of Nucleus seed in self pollinated crops
2. Write in brief the special features or provisions of Seed Control Order (1983)
3. Describe briefly the seed production technology of rice varieties.
4. Describe in brief the procedure of Grow-out Test
5. Describe various methods of temperature control during seed storage
6. Briefly explain various rapid methods of testing seed viability and uses of the same
7. What are the different stages of crop growth for field inspection and briefly summarize the specific objectives of these inspections at various stages
8. Write in brief about the establishment and functions of State Seed Certification Agency

IV. Write essay on ANY ONE of the following (Question Number 1 to 2) (1x10=10)

1. What are plant breeding rights? Briefly describe the condition for award of PBR protection, the scope of protection, breeders exemption and farmers privilege? Discuss the need for PBR in India and briefly explain the salient features of PBR system developed by India.
2. Classify seeds on the basis of longevity with examples. Describe in detail the factors affecting seed longevity in storage.