

**PARUL UNIVERSITY**  
**COLLEGE OF AGRICULTURE**

**B.Sc.(Hons.) Agriculture Summer 2018-19 Examination**

Semester: 2

Date: 04/04/2019

Subject Code :20102151

Time: 2:00 pm to 4:30pm

Subject Name: Principles of Seed Technology

Total Marks: 60

**Instructions**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

**Q.1 Do as Directed.****A. Fill in the blanks. (Each of 1.00 marks)****(10)**

1. The seed plot should be free from \_\_\_\_\_ plants.
2. \_\_\_\_\_ refers to all the steps necessary for preparation of harvested seed for marketing, handling, drying, shelling, preconditioning, cleaning, size grading, treating and packaging, etc.
3. Increase oxygen supply is decrease \_\_\_\_\_ due to high respiration rate.
4. Seed can be successfully dried to 5 per cent or lower moisture level without loss their viability, these seeds are called as \_\_\_\_\_.
5. Removal of un-threshed ears, pods, clusters, stem and leaf trashes, fuzz, awns etc. before seed processing is called \_\_\_\_\_.
6. In order to maintain seed viability and vigor, \_\_\_\_\_ of seed lots is very important, otherwise it will deteriorate very fast due to growth of mould and micro organism activities.
7. In the \_\_\_\_\_ process, the separation of undesirable materials, viz., inert matter, weed seeds, other crop seeds, light and chaffy seeds, off-size, damaged or deteriorated seed from desirable material.\_\_\_\_
8. \_\_\_\_\_ is one of the best methods of seed drying.
9. \_\_\_\_\_ method is universally favored for drying seeds in a special drying bin, or in wagons.
10. \_\_\_\_\_ is commonly used as the basic equipment in seed processing plants for basic seed cleaning.

**B. Multiple choice type questions. (Each of 1.00 mark)****(10)**

1. Which of the following factor does not affect the quality of seed?
 

A) Damage seed coat	C) Poor seed storage
B) Sunlight	D) Seed-borne fungi
2. Moisture content in seed is
 

(A) Genetic quality of seed	(C) Physiological quality of seed
(B) Physical quality of seed	(D) Phytosanitary quality of seed
3. *Argemone maxicana* is an objectionable weed in
 

(A) Bread wheat	(C) Indian Mustard
(B) Barley	(D) Lentil
4. Hard seeds are common in
 

A) Fabaceae	C) Cannaceae
B) Malvaceae	D) Leguminaceae
5. The seed sector in India is governed by
 

A) Seeds act 1966	C) Protection of Plant Varieties
B) Seed control order 1983	D) All of the above
6. Crop seed multiplication ratio in paddy is
 

A) 1: 100	C) 1: 10
B) 1: 20	D) 1: 50
7. Seed processing can improve
 

A) Physical purity	C) Moisture
B) Genetic purity	D) Physiological purity
8. One is not a cause of seed dormancy from following
 

A) Hard seed coat	C) Chemical inhibitors
B) After ripening period	D) Immature embryo

9. Rouging may be done at  
A) Pre – flowering stage  
B) Flowering stage  
C) Maturity stage/ before harvesting  
D) All of the above
10. Genetic purity of seeds is tested on the basis of  
A) Physical  
B) Chemical  
C) Cytological  
D) Biochemical

**Q.2 Do as Directed.**

**A. Define the following. (Any five)**

**(05)**

1. Seed viability
2. Epigeal Germination
3. Rouging
4. Apomictic seed
5. Seed certification
6. DUS test
7. Seed disinfection

**B. Answer the following. (Any Five)**

**(05)**

1. Write the goals of seed technology.
2. Enlist the characteristics of good seeds.
3. Give the relationship of seed technology to other sciences.
4. State the principles of seed production.
5. Write the various classes of seeds.
6. Elucidate the factors affecting the final marketing price.
7. Enlist the general principles of seed storage.

**Q.3 Write short notes. (Anyfive)**

**(15)**

1. History of seed industry in India
2. Seed law enforcement
3. Seed processing
4. Procedure for certification of seed
5. Seed marketing and factor affecting seed marketing
6. Hybrid seed production in maize

**Q.4 Attempt any Three/Long Questions/Example**

**(15)**

1. Hybrid seed production in cotton
2. Seed drying
3. Different Types of seed
4. Seed viability Test