

PARUL UNIVERSITY
COLLEGE OF AGRICULTURE

B.Sc.(Hons.) Agriculture, Summer 2017-18 Examination

Semester: 2

Date: 22/05/2018

Subject Code: 20102151

Time: 10:30 am to 1:00 pm

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 marks)****(10)**

1. _____ is ripened ovule containing embryo with reserve food in endosperm or cotyledons.
2. Rouging out off-types, diseased plants, objectionable weeds and other crop plants at appropriate stages of crop growth, which ensures seed _____ and _____.
3. _____ involves such activities as variety development, evaluation and release, seed production, processing, storage and certification.
4. _____ is the part of commercial produce, saved for sowing or selling purposes.
5. In _____ seed, only one cotyledon is present in the seed.
6. In gram, _____ type of germination is occurring.
7. Removal of off – types, diseased plants, weeds, rogues or plants differing in their characteristics from the seed crop variety is called _____.
8. In cotton, _____ and _____ isolation distance (m) is required during production of foundation seed and certified seed respectively.
9. _____ type of germination, the cotyledons are comes above the ground and provide nutrition to growing parts.
10. _____ Chemical help in knowing seed viability within few hours.

B. Multiple choice type questions. (Each of 1 mark)**(10)**

1. Seed Technology includes

A) Development of superior crop plant varieties	C) seed certification, Seed quality control, seed marketing
B) Seed production, processing, Seed storage, seed testing,	D) All of the Above
2. The seed is scientifically

(A) Processed	(C) Packed and labeled
(B) Treated	(D) All of the Above
3. Mustard seed is an example of

(A) Ex albuminous dicot seed	(C) Albuminous dicot seed
(B) Albuminous monocot seed	(D) Ex albuminous monocot seed
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 | C) Maturity stage/ before harvesting |
| B) Flowering stage | D) All of the above |
10. Genetic purity of seeds is tested on the basis of
- | | |
|-------------|----------------|
| A) Physical | C) Cytological |
| B) Chemical | D) Biochemical |

Q.2 Do as Directed.

A. Define the following. (Any five)

(05)

1. Seed germination
2. Apomictic seed
3. Seed certification
4. Rouging
5. DUS test
6. Seed health
7. Seed processing

B. Answer the following. (Any five)

(05)

1. State the methods of cleaning seed
2. Write down the basic concepts of seed certification.
3. Give the relationship of seed technology to other sciences.
4. State the Methods of seed drying.
5. Write the various classes of seeds.
6. Enlist the factors affecting the final marketing price.
7. Enlist the characteristics of good seeds.

Q.3 Write short notes. (Any five)

(15)

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

Q.4 Long Questions. (Any three)

(15)

1. Explain scarification in detail.
2. Physical purity.
3. Procedure for seed drying.
4. Procedure for certification of seed.