

B.Sc. Part-II Semester-IV Examination
SEED TECHNOLOGY
(Seed Testing and Seed Quality Control)

Time : Three Hours]

[Maximum Marks : 80

N.B. :— (1) All questions are compulsory.

(2) Draw well labelled diagram wherever necessary.

1. (A) Fill in the blanks :

- (i) _____ is the process of obtaining a sample of a size suitable for test. ½
- (ii) The moisture content of a seed sample is _____ in weight when it is dried. ½
- (iii) _____ is the outermost covering of seed. ½
- (iv) The main function of Seed Inspector is to take samples from _____ where seeds of notified varieties are being sold. ½

(B) Choose correct alternatives (MCQ) :

- (v) Seed Act refers to the Indian Seed Act _____.
 - (a) 1960
 - (b) 1966
 - (c) 1965
 - (d) None ½
- (vi) Seed testing is the science of evaluating the planting quality of seed _____ it is sown.
 - (a) After
 - (b) Before
 - (c) Both (a) and (b)
 - (d) None ½
- (vii) Breeders seed is the seed which has _____ generic purity.
 - (a) Maximum
 - (b) Minimum
 - (c) Both (a) and (b)
 - (d) None ½
- (viii) Moisture content of seed sample is the _____ in weight, when it is dried.
 - (a) Loss
 - (b) Increase
 - (c) Both (a) and (b)
 - (d) None ½

(C) Answer in **one** sentence :

- (ix) What is working sample ? 1
 - (x) What is seed quality ? 1
 - (xi) What is seed certification ? 1
 - (xii) What is seed vigour ? 1
2. Describe in detail seed testing equipments and their maintenance. 12

OR

Explain in brief :

- (a) Handling and testing of seed sample. 6
- (b) National organisation and seed testing linkages. 6

3. Describe in brief :
- (a) Seed vigour testing. 4
 - (b) Seed testing in relation to Seed Act. 4
 - (c) Record keeping in seed testing. 4
- OR**
- (d) Culture purity testing. 4
 - (e) Rapid test of seed quality determination. 4
 - (f) Testing of plated seeds 4
4. Describe in brief :
- (g) Physical purity. 4
 - (h) Seed certification. 4
 - (i) Seed Inspector qualification and duties. 4
- OR**
- (j) Seed legislation. 4
 - (k) Concept of variety variation. 4
 - (l) Genetic purity. 4
5. Describe in brief classes of seed and phases of seed certification. 12
- OR**
- Describe in detail :
- (a) Seed certification agencies and its organisation. 6
 - (b) Principle of field inspection. 6
6. Describe in brief :
- (m) Oil seeds production. 4
 - (n) Testing of genetic purity of cotton seeds. 4
 - (o) Interstate seed certification. 4
- OR**
- (p) Techniques of field inspection in seed production. 4
 - (q) Seed plot inspection at harvesting. 4
 - (r) Issue of certificates and tag. 4
7. Explain in brief :
- (s) Central sub-committee on Crop Standards. 4
 - (t) International seed certification. 4
 - (u) Plant breeders right. 4
- OR**
- (v) State Seed Committee. 4
 - (w) OECD. 4
 - (x) Management of seed certification programme. 4