

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

Time : Three Hours]

[Maximum Marks : 80

Note : —(1) ALL questions are compulsory.

(2) Draw well labelled diagrams wherever necessary.

1. (A) Fill in the blanks : :-

- (i) The removal of moisture from the seed is _____. ½
- (ii) The main objective of ____ is to maintain the seed in good health. ½
- (iii) Varietal purity is known as _____. ½
- (iv) _____ a uniformly blended quantity of seed designated by a proper number. ½

(B) Choose the appropriate alternative :—

- (i) _____ has maximum genetic purity.
- (a) Nucleus seed (b) Breeders seeds
- (c) Certified seeds (d) None ½
- (ii) Heterogeneity means _____. ½
- (a) Variation in growth lot (b) Similarity in seed lot
- (c) Variation in seed lot (d) None
- (iii) The main objective of seed certification is to make available _____. ½
- (a) Certify grain (b) Ordinary seeds
- (c) Certified seeds (d) None
- (iv) Seed testing means the science of evaluating the planting quality of seed _____ it is sown. ½
- (a) After (b) Before
- (c) Both (a) and (b) (d) None

- (C) Answer in one sentence :
- (i) What is Seed quality ? 1
 - (ii) What is normal Seedling ? 1
 - (iii) What is Seed Act ? 1
 - (iv) What is Seed Vigour ? 1
2. Explain in brief :
- (a) Role of National and International Organisations in Seed testing. 6
 - (b) Layout of Seed testing laboratory and its maintenance. 6
- OR**
- (c) Requirements of Seedling evaluation. 6
 - (d) Requirements of Germination testing. 6
3. Explain in brief :-
- (a) Seed Vigour testing. 4
 - (b) Record Keeping. 4
 - (c) Seed Act and marketing. 4
- OR**
- (d) Storage of guard samples. 4
 - (e) Rapid Test. 4
 - (f) Culture Purity Testing. 4
4. Describe in brief :-
- (g) Objectives of Indian Seed Act. 4
 - (h) Concept of variety variation. 4
 - (i) Seed certification 4
- OR**
- (j) Concept of Seed Quality. 4
 - (k) Heritable and non-heritable characters. 4
 - (l) Responsibilities of Seed Inspector. 4
5. Discuss in detail concept and history of Seed Certification and mention the different phases of Seed Certification. 12
- OR**
- Discuss in brief :—
- (a) Principles of field inspection. 6
 - (b) Organisation and Agencies of Seed Certification. 6

6. Explain in brief :—
- (m) Techniques of field inspection of pulses. 4
 - (n) Inter-State Seed Certification. 4
 - (o) Revalidation of Seed lots. 4

OR

- (p) Sampling for Seed Quality evaluation. 4
 - (q) Seed production plots for vegetables. 4
 - (r) Issue of certificates and tag sealing. 4
7. Explain in brief :—
- (s) Management of seed certification programme. 4
 - (t) OECD 4
 - (u) Seed Quality Control Organization in India. 4

OR

- (v) State Seed Committee. 4
- (w) Plant variety production. 4
- (x) International seed certification. 4

