

B.Sc. (Part-II) Semester-IV Examination

SEED TECHNOLOGY

(Seed Testing and Seed Quality Control)

Time : Three Hours]

[Maximum Marks : 80

- Note :—** (1) There are **seven** questions in all.
(2) Question No. **1** is compulsory and carries **8** marks.
(3) Question Nos. **2 to 7** carry equal marks.
(4) Draw well labelled diagrams wherever necessary.

1. (A) Fill in the blanks :

- (i) The certifying authority is entitled to full information about the techniques used by the _____ to develop and maintain the variety. ½
(ii) Field _____ are perform by certification on officials on all fields for which applications are submitted. ½
(iii) Seed certifying agency should be _____ of regulatory work. ½
(iv) In accordance with the ISTA rules a minimum number of _____ seeds is required for germination test. ½

(B) Choose the correct alternatives (MCQ) :

- (v) _____ seed crops are inspected for isolation from other fields that represent potential for outcrossing. ½
(a) Self pollinated (b) Cross pollinated
(c) Neutral (d) None
(vi) The Indian Seed Act was passed by Parliament in _____. ½
(a) 1970 (b) 1950
(c) 1966 (d) 1981
(vii) _____ method is suitable for all kinds of seeds. ½
(a) Random cup method (b) Spoon
(c) Mechanical divider (d) Field
(viii) Central Seed Laboratory is situated at : ½
(a) New Delhi (b) Kolkata
(c) Nagpur (d) Madras

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

- (ix) What is meant by AOSCA ? 1
(x) What is the purpose of seed certification ? 1
(xi) Which seed certification board is to deal with all problems related to seed certification ? 1
(xii) Why field inspection is needed ? 1

2. Comment on :
- (a) History of seed testing. 4
 - (b) Heterogeneity test. 4
 - (c) Seedling evaluation. 4
- OR**
- (d) Seed testing equipments. 4
 - (e) Physical purity analysis. 4
 - (f) Moisture and germination testing. 4
3. Comment on :
- (a) Seed vigour testing. 4
 - (b) Storage of guard samples. 4
 - (c) Rapid test. 4
- OR**
- (d) Culture purity testing. 4
 - (e) Record keeping and reporting of results. 4
 - (f) Testing of plated seeds. 4
4. Give detail account of seed quality control systems. 12
- OR**
- Define seed quality and explain in detail physical purity and genetic purity concepts. 12
5. Define seed certification. Explain in detail classes of certified seeds. 12
- OR**
- Describe in detail :
- (a) Phases of seed certification. 6
 - (b) Standards of seed certification. 6
6. Comment on :
- (a) Sampling of seed quality. 4
 - (b) New Seed Policy (1988). 4
 - (c) Testing of genetic purity. 4
- OR**
- (d) Technique of field inspection of seed production. 4
 - (e) Inspection at harvesting. 4
 - (f) Interstate seed certification. 4
7. Comment on:
- (a) Function of Central Seed Committee. 4
 - (b) OECD. 4
 - (c) Future trends in seed certification. 4
- OR**
- (d) Plant Breeders Right. 4
 - (e) Seed Certification Scheme. 4
 - (f) Central Seed Certification Board. 4