

B.Sc. Part-III (Semester-V) Examination

SEED TECHNOLOGY

(Seed Pathology and Seed Entomology)

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 of the following :

- (i) _____ is the basic input of crop production. ½
- (ii) Pathogen enters the interior of seed through _____ and lies quiescent forming a slimy mass below the seed coat. ½
- (iii) Seed _____ is a legally sanctioned system for quality control of seed multiplication and production. ½
- (iv) The _____ is generally exist inside the crop residues weeds after the crop is harvested. ½

(B) Choose the correct alternatives :

- (v) _____ is the most mechanical assured way of destroying the pest larvae population at initial stage of pest occurrence.
- (a) Insect trap (b) Hand pickling
- (c) Crop rotation (d) Artificial cooling ½
- (vi) Which method is used for detection of seed borne fungi which are not easily detectable ?
- (a) Agar plate method (b) Dome test
- (c) Serological test (d) Examination of wet seeds ½
- (vii) Moist weather _____ the spread of rust and downy mildew disease.
- (a) Oppose (b) Favours
- (c) Control (d) No effect ½

(viii) The insects are the only invertebrates possessing the _____.

- | | | |
|--------------|--------------|---|
| (a) Legs | (b) Antennae | |
| (c) The head | (d) Wings | ½ |

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

- | | |
|---|---|
| (ix) What is the main objective of seed certification ? | 1 |
| (x) How to control seed borne nematode disease ? | 1 |
| (xi) Define seed health testing. | 1 |
| (xii) Which is the beneficial insect ? | 1 |

2. Comment on :

- | | |
|-----------------------------------|---|
| (a) Seed borne bacteria | 4 |
| (b) Entry point of seed infection | 4 |
| (c) Control of storage fungi. | 4 |

OR

- | | |
|--------------------------------|---|
| (p) Seed borne viruses | 4 |
| (q) Impact of storage fungi | 4 |
| (r) History of seed pathology. | 4 |

3. Comment on :

- | | |
|--|---|
| (a) Modern techniques of seed treatment | 4 |
| (b) Field management in seed production | 4 |
| (c) Effect of humidity on seed borne diseases. | 4 |

OR

- | | |
|---|---|
| (p) Seed crop management | 4 |
| (q) Effect of temperature on seed borne disease | 4 |
| (r) Quarantines of seed health testing. | 4 |

4. What is meant by seed borne diseases and explain in detail seed act in relation to seed borne diseases ?

12

OR

Discuss :

- | | |
|--|---|
| (a) Methods of seed health testing for fungi | 6 |
| (b) Seed certification. | 6 |

5. Comment on :
- (a) General classification of insects 4
 - (b) Important pests of paddy 4
 - (c) Appendages of insects. 4

OR

- (p) General body of insect 4
 - (q) Important insect pest of sorghum 4
 - (r) Important insect pest of vegetables. 4
6. Explain honey bee, their social structure and write short note on bee keeping. 12

OR

Discuss in brief methods of insect control. 12

7. Comment on :
- (a) Plant Protection Equipments (any **two**) 4
 - (b) IPM strategies for important pests 4
 - (c) Detection of infestation. 4

OR

- (p) Types of fumigants 4
- (q) Rodents and their control 4
- (r) Types of insect pest of stored grains. 4

