

B.Sc. (Part—III) Semester—V Examination
SEED TECHNOLOGY (Vocational)
(Seed Pathology & Seed Entomology)

Time : Three Hours]

[Maximum Marks : 80

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

(2) Draw well labelled diagrams wherever necessary.

1. (A) Fill in the blanks of the following :

- (i) ... content of seed is most important factor in the maintenance of seed quality. ½
- (ii) Rodents and Birds are constant source of _____. ½
- (iii) The object of sampling is to obtain _____ sample of size suitable for the required test. ½
- (iv) The storage bacteria require ____ percent relative humidity. ½

(B) Choose the correct alternative (MCQ) :

- (v) Washing test is used for the detection of seed borne fungi which transmitted _____. ½
- (a) Internally (b) Externally
- (c) Both (a) and (b) (d) None
- (vi) _____ infections are adversely affected in seed by free water. ½
- (a) Nematode (b) Bacteria
- (c) Fungi (d) Virus
- (vii) One percent decrease in moisture content nearly _____ storage potential of seed. ½
- (a) Half (b) Doubles
- (c) Both (a) and (b) (d) None
- (viii) _____ the temperature, the longer the seeds maintain germination capacity. ½
- (a) Higher (b) Lower
- (c) Both (a) and (b) (d) None

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

- (ix) What is the importance of bee keeping ? 1
- (x) What is I.P.M. ? 1
- (xi) What is sampling of seeds ? 1
- (xii) What is Economic Entomology ? 1

2. Explain :

- (a) Seed-borne fungi. 4
- (b) Entry point of seed infection. 4
- (c) Impact of fungi on human health. 4

OR

- (p) History of seed pathology. 4
- (q) Economic significance of seed diseases. 4
- (r) Seed transmission. 4

3. Describe in brief effects of environmental factors on seed-borne diseases. 12

OR

Describe in brief effective management of seed crop. 12

4. Explain :

- (a) Importance of National cooperation in seed pathology. 4
- (b) Tolerance limit of seed-borne pathogens. 4
- (c) National seed act in relation to seed diseases. 4

OR

- (p) Importance of seed certification. 4
- (q) International cooperation in seed pathology. 4
- (r) Importance of inspection of plants beyond seedling stage. 4

5. Describe in brief methods of insect classification. 12

OR

Describe in brief important insect pest of cereal crop – maize and sorghum with reference to their nature of damage and management. 12

6. Explain :
- (a) Methods of insect control. 4
 - (b) Social structure of honey bees. 4
 - (c) Safe application of pesticides. 4
- OR**
- (p) Role of insect in pollination. 4
 - (q) Preparation of spray solution. 4
 - (r) Physical method of insect control. 4
7. Explain :
- (a) Importance of control of Rodents in seed godowns. 4
 - (b) IPM strategies for important pests. 4
 - (c) Insect pests and mites found in storage. 4
- OR**
- (p) Importance of maintenance of plant protection equipments. 4
 - (q) Methods of fumigation. 4
 - (r) Impacts of seed protectants on viability of seeds. 4

