(q) Simple dehiscent fruits. 4

(r) Polyembryony. 4

3. Describe in brief breakdown of different seed storage products during process of germination.

**OR**

What is germination ? Describe types of germination and seedling abnormalities in monocot crop species. 12

4. Comment on :

(a) Stimulators of germination. 4

(b) Hard seededness. 4

(c) Enzymes involved during germination. 4

**OR**

(p) Seed inhibitors. 4

(q) Breaking of seed dormancy. 4

(r) Importance of seed deterioration in storage. 4



**AR – 485**

First Semester B. Sc. (Part - I) Examination

## SEED TECHNOLOGY (Vocational)

(Seed Development, Seed Physiology and Introduction to Plant Breeding)

P. Pages : 6

Time : Three Hours ] [ Max. 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) When pollination is carried out by insects it is called _____ $\frac{1}{2}$

(ii) The main function of _____ is protective in nature. $\frac{1}{2}$

(iii) For the purpose of _____ some seed shows development of hairy out growth. $\frac{1}{2}$

(iv) Seeds having _____ germinate vigorously. $\frac{1}{2}$

(b) Choose the correct alternative. (MCQ)

(v) _____ is a simple, dry dehiscent fruit.

(a) Siliqua

(b) Capsule

(c) Legume

(d) Follicle $\frac{1}{2}$

(vi) In phenol colour reaction sonora wheat variety indicate _____ colour.

(a) Dark black

(b) Black

(c) Brown

(d) Light brown $\frac{1}{2}$

(vii) The seedling which shows the capacity for continued development into _____ plant.

(a) Abnormal

(b) Normal

(c) Both

(d) None $\frac{1}{2}$



(viii) Self incompatibility means _____ to set seed from application of pollen produced on the same plant.

(a) Ability

(b) Inability

(c) Both

(d) None $\frac{1}{2}$

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

(ix) What is inhibitor ? 1

(x) What is Apomixis ? 1

(xi) What is pollination ? 1

(xii) What is Polyembryony ? 1

2. Comment on :

(a) GA3 test. 4

(b) Seed texture. 4

(c) Electrophoresis. 4

**OR**

(p) Importance of physiological maturity of seeds. 4

5. What is seed vigour ? Describe measurements of seed vigour. 12

**OR**

Explain :–

(a) Significance of micropropagation techniques. 6

(b) Treatments to minimize seed ageing. 6

6. Comment on :-

(a) Megasporangium. 4

(b) Variety descriptors. 4

(c) Grow out test in cotton. 4

**OR**

(p) Development of male gametophyte. 4

(q) DUS system. 4

(r) Importance of morphological characters for variety identification. 4

7. Comment on :

(a) Cytoplasmic sterility. 4

(b) Double fertilization. 4

(c) Chemical hybridizing agents. 4

**OR**

(p) Self incompatibility. 4

(q) Self pollination. 4

(r) Structure of flower. 4