



K16P 0393

Reg. No. : .....

Name : .....

**Second Semester M.Sc. Degree (Regular/Supplementary/Improvement)  
Examination, March 2016**

**BOTANY**

**BOT 2C 05 : Embryology, Palynology and Plant Breeding  
(2014 Admn. Onwards)**

Time : 3 Hours

Max. Marks : 60

I. Answer **any two** of the following :

(2×8=16)

1) Give an account of microsporogenesis.

OR

2) Write on the types and evolution of ovules.

3) Write on the significance of floral biology in hybridisation.

OR

4) Explain the methods of breeding for resistance.

II. Answer **any two** of the following :

(2×6=12)

5) a) What are pollen embryos ?

1

b) Write on the structure and function of anther wall layers.

2

c) Write on the types and significance of polyembryony.

3

6) a) What is germplasm ?

1

b) What is terminator seed technology ?

2

c) Write on the centres of origin and diversity of crop plants.

3

7) a) What are genetically modified crops ?

1

b) Write on the procedure for the release of a new plant variety.

2

c) Major achievements of plant breeding work in India.

3

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III. Answer **any six** of the following :

(6×3=18)

- 8) Explain the types of tapetum.
- 9) Write on the significance of pollen-pistil interaction.
- 10) What is double fertilisation ?
- 11) Write on the contributions of Erdtman and R.K.K. Nair.
- 12) Write on the importance of palynology in relation to taxonomy.
- 13) Write briefly on Patent laws.
- 14) What is seed certification ?
- 15) Explain the nutritive value of honey.

IV. Answer **any seven** of the following :

(7×2=14)

- 16) Rural gene bank.
- 17) Synergids.
- 18) Biodiversity international.
- 19) Parthenocarpy.
- 20) Haustoria.
- 21) Pollen allergy.
- 22) Plant introduction.
- 23) Quarantine.
- 24) Male sterility.
- 25) Plant breeders right.