M 27390

Reg. No. : .....

Name : .....

II Semester M.A./M.Sc./M.Com. Degree (Reg./Sup./Imp.) Examination, March 2015

BOTANY

(2014 Admn. Onwards)

BOT 2C05 : Embryology, Palynology and Plant Breeding

Time : 3 Hours Max. Marks : 60

I. Answer **any two** of the following : **(2×8=16)**

1) Write an account of microsporogenesis.

OR

2) Explain the structure of the pistil and the ultrastructural and hetero chemical details of style and stigma.

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

OR

4) Give an account of the major crops and their hybrids cultivated in Kerala.

II. Answer **any two** of the following : **(2×6=12)**

5) a) What are pollen embryos ? 1

b) Write on the metabolic and structural post fertilisation changes. 2

c) Explain the biochemical and molecular changes taking place during fruit maturation. 3

6) a) Adaptation of pollen grains. 1

b) Methods of aerospore survey. 2

c) Ultrastructure of pollen wall. 3

P.T.O.

7) a) What is mutation ? 1

b) Significance of seed certification. 2

c) Procedure for releasing a new variety. 3

III. Answer **any six** of the following : **(6×3=18)**

8) Explain the types of ovules.

9) What is monosporic type of embryosac.

10) Write on parthenocarpy.

11) Write on the application of pollen morphology.

12) What are the contributions of Erdtman and P.K.K. Nair ?

13) Write on the types of germplasm collection.

14) What is a terminator seed ?

15) Major achievements in mutation breeding.

IV. Answer **any seven** of the following : **(7×2=14)**

16) Tapetum.

17) Synergids.

18) Sperm dimorphism.

19) Nutritive value of honey.

20) Rural gene banks.

21) Tillering.

22) Plant introduction.

23) Biodiversity international.

24) Farmers rights.

25) Polyembryony.