



M 26058

Reg. No. :

Name :

**Third Semester M.A./M.Sc./M.Com. Degree (Reg./Sup./Imp.)
Examination, November 2014
BOTANY**

Paper – B.IX : Angiosperm Embryology, Palynology and Plant Breeding

Time : 3 Hours

Max. Marks : 80

Instruction : Draw diagrams wherever necessary.

- I. Answer **any two** of the following : (2×10=20)
- 1) Write an account of hormonal control of seedling growth.
 - 2) Describe floral characteristics of angiosperm plants.
 - 3) Write an account of surveying and analysis of airspora.
 - 4) Give an account of genetics of resistance in plant breeding.
- II. Answer **any one** of the following : (1×10=10)
- 5) Explain methods of hybrid seed production.
 - 6) Discuss preservation and utilization of plant germ plasm.
- III. Answer **any four** of the following : (4×5=20)
- 7) Explain unique features of plant development.
 - 8) Discuss the need of artificial pollination in agriculture.
 - 9) Write a note on practical value of polyembryony.
 - 10) Give an account of interaction of pollen wall proteins and stigma proteins.
 - 11) Write an account of plant breeding for pest resistance.
 - 12) Write the mechanism of sexual reproduction in flowering plants.
- IV. Answer **any six** of the following : (6×3=18)
- 13) Give an account of mobilization of food reserves in seedling growth.
 - 14) Explain origin and importance of tapetum.
 - 15) Discuss contributions of Erdtman in Palynology.
 - 16) Write an essay on application of pollen morphology.

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- 17) Genetically modified crops-boon or bane, discuss how ?
- 18) Explain breeding for stress resistance.
- 19) Discuss briefly social and economic aspects of agriculture in Kerala.
- 20) Give an account of utilization of wild genetic resources in crop improvements.
- 21) Describe ultra structure of pollen wall.

V. Write short notes on **any six** of the following :

(6×2=12)

- 22) NBPGR
- 23) Apomicts
- 24) Intraovarian pollination
- 25) Ruminant endosperm
- 26) Pollen allergy
- 27) Megaspore diad
- 28) Rural gene bank.