

Roll No.

Total Pages : 3

GSM/M-20

1626

BOTANY

(Plant Embryology)

Paper-II

Time Allowed : 3 Hours]

[Maximum Marks : 40

Note : Attempt **five** questions in all, selecting at least **two** questions from each Unit. Question No. 1 is compulsory. All questions carry equal marks. Draw well labelled diagrams where ever necessary.

Compulsory Question

1. Define the following : 1×8=8
- (a) Polyembryony.
 - (b) Compound Pollen grain.
 - (c) Heterofertilization.
 - (d) Perisperm.
 - (e) Protandry.
 - (f) Gametogenesis.
 - (g) Synergids.
 - (h) Autogamy.

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UNIT-I

2. Write short notes on the following :
 - (a) Hydrophily.
 - (b) Entomophily. 4,4
3. What is Pollen-pistil interaction ? Describe in brief the Phenomenon of Self incompatibility in Angiosperms. 8
4. Comment upon the statement "Flower is a modified shoot". And also explain the functions of various floral parts. 8
5. Explain the following :
 - (a) Structure of Pollen grain.
 - (b) Tapetum. 4,4

UNIT-II

6. Draw diagrams only the following :
 - (a) L.S. of a typical anatropous ovule.
 - (b) Stages in the development of Monocot embryo. 4,4
7. Write notes on any **two** of the following :
 - (a) Aggregate fruits.
 - (b) Composite fruits.
 - (c) Schizocarphic fruits. 4,4

8. Define the endosperm and explain various kinds of endosperms found in Angiosperms. 8
9. Write notes on the following :
- (a) Zoochory.
 - (b) Double fertilization and its significance. 4,4