

Roll No.

Total Pages : 02

GSM/M-21

1628

BOTANY

Paper II (Option II)

Plant Embryology

Time : Three Hours]

[Maximum Marks : 40

Note : Attempt *Five* questions in all, selecting *two* questions from each Unit. Q. No. **1** is compulsory. Draw neat and well labelled diagrams where they are necessary.

1. Define the following :

- (a) Palynology
- (b) Protogyny
- (c) Hypostase
- (d) Sorosis
- (e) Polyembryony
- (f) Pollinium
- (g) Geitonogamy
- (h) Triple fusion.

1×8=8

Unit I

2. Justify the statement “Flower is a modified shoot”. **8**

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3. Draw and describe the development of male gametophyte in angiosperms. **8**
4. Explain the genetic basis of self-incompatibility. Give various methods to overcome self-incompatibility. **8**
5. (a) Write a note on Tapetum and its functions. **4**
(b) Distinguish between self and cross-pollination. **4**

Unit II

6. Draw and describe the structure of an anatropous ovule. **8**
7. Describe the various types of embryo-sacs. **8**
8. (a) Describe the various ways for pollen tube to enter in an ovule. **4**
(b) Write a note on Anemochory. **4**
9. Describe the development of a typical dicotyledonous embryo with suitable diagrams. **8**