

Roll No.

(09/20-I)

5225

B. Sc. EXAMINATION

(For Re-appear Candidates Only)

(Fourth Semester)

BOTANY

Second Paper

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 (Short answer type). All questions carry equal marks. Draw well labelled diagram wherever required.

1. Define or expand the following terms :

(a) Geitonogamy

- (b) Coleorhiza
- (c) Callose
- (d) Scutellum
- (e) Cremocarp
- (f) Tenuinucellate ovule
- (g) Herkogamy
- (h) Albuminous seeds with example. $1 \times 8 = 8$

Unit I

2. Write short notes on the following : $2+3+3=8$
 - (a) Endothecium
 - (b) Tapetum
 - (c) Structure of Microspore
3. Write notes on the following : $4+4=8$
 - (a) Self-Incompatibility
 - (b) Pollination in Salvia.
4. Describe the development of male gametophyte in angiosperms. 8

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5. Write notes on the following : $2 \times 4 = 8$
 - (a) Pollinium
 - (b) Cleistogamy
 - (c) Porogamy
 - (d) Simultaneous type of microsporogenesis.

Unit II

6. Describe the development of a typical Polygonum type of Embryo sac. Describe the function of each nucleus. 8
7. Write notes on the following : $2+3+3=8$
 - (a) Hypostase and Epistase
 - (b) Endosperms and Embryo relationship
 - (c) Cellular Type of Endosperm.
8. (a) Describe development of a typical dicot embryo. 4
 (b) Write a note on simple dry fruits. 4
9. Define Polyembryony. Describe various types of Polyembryony in angiosperms. 8

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