

Exam. Code : 210003

Subject Code : 5396

M.Sc. (Botany) 3<sup>rd</sup> Semester

DEVELOPMENTAL BOTANY

Paper—BOT-C-612

Time Allowed—3 Hours] [Maximum Marks—50

SECTION—A

**Note** :— All questions are compulsory. Each question will be of 1 mark. Answer should not exceed 4 lines.

— 8×1=8

1. Define stub-pollination.
2. What are the functions of exudates in fertilizations ?
3. Define syngamy.
4. What are the causes of polyembryony.
5. What is ruminant endosperm ?
6. Define x-bodies.
7. What do you mean by dis-functioning of embryos ?
8. What are the disadvantages of self pollination ?

SECTION—B

**Note** :— Attempt any **SEVEN** questions. Each question carries 3 marks. Each answer should not exceed 2 pages.

7×3=21

1. Differentiate between self and cross pollination.
2. Describe double fertilization.

3. How self-pollination is prevented in plants ?
4. Discuss self incompatibility in plants.
5. Describe helobial and cereal endosperm.
6. What are the functions of endosperm ? On which basis these functions are concluded ?
7. Define palynology. Discuss different types of palynology.
8. Illustrate the growth and functions of suspensor.
9. Define double fertilization and its significance in plants.
10. Discuss types of embryogeny in dicotyledons.

### SECTION—C

**Note** :— Attempt any **THREE** questions. Each question carries **SEVEN** marks. Each answer should not exceed **4** pages. 3×7=21

1. Discuss in detail classification of polyembryony.
2. Illustrated physiological and genetical control of embryogenesis.
3. Explain the embryological characters which have proved of special importance in taxonomic considerations.
4. How polyembryony arise in angiosperms ? Discuss in detail by giving examples.
5. Define artificial pollination. Describe various methods used for pollen storage and how pollen viability has been examined ? 3×7=21