

Exam. Code : 210003

Subject Code : 4909

M.Sc. Botany 3rd Semester (Batch 2020-22)

DEVELOPMENTAL BOTANY

Paper : BOT-C612

Time Allowed—3 Hours] [Maximum Marks—50

Note :— Attempt **FIVE** questions in all, selecting at least **ONE** question from each section. The **fifth** question may be attempted from any section. All questions carry equal marks.

SECTION-A

1. Explain in detail ultrastructure and histochemical details of style and stigma in angiosperms.
2. What is the role of pollen wall proteins and stigma surface proteins in making pollination successful ? Discuss about various barriers to fertilization.

SECTION-B

1. Write detailed notes on :
 - (i) Heterospermy
 - (ii) Triple fusion
 - (iii) Endosperm haustoria
 - (iv) Syngamy

2. Discuss various types of endosperms and their ultrastructure. How nuclear endosperms become cellular structure ?

SECTION-C

1. Explain in detail giving suitable examples about the histology and organogenesis of dicot embryos. How it is different from monocot embryo ?
2. Discuss various stages of seed development with special reference to physiological changes. What is the role of abscisic acid in maturation of seed ?

SECTION-D

1. Elucidate the role of embryology and palynology in taxonomy.
2. What is disfunction of endosperm ? What is its importance in plant breeding program of agricultural crop development ?