

M.Sc. (Botany) (CBCS Pattern) Semester-III
PSDBOTT11-1 - DSE-I Paper-III - Reproductive Biology of Angiosperm-I

P. Pages : 1

Time : Three Hours



GUG/S/25/11244

Max. Marks : 80

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- Notes : 1. All questions are compulsory and carry equal marks.
2. Draw well labeled diagrams wherever necessary.

1. Describe in brief internal structure of anther and add a note on pollen tetrad development. **16**

OR

Write notes on-

- a) Interdisciplinary approaches of reproductive biology of angiosperms. **8**
b) Adaptive significance of pollen wall. **8**

2. Give an illustrated account of development of male gametophyte in angiosperms. **16**

OR

Write notes on-

- a) Physiological and Biochemical aspects of pollen. **8**
b) Structural and functional aspects of male sterility. **8**

3. Describe in detail structural details of ovule and process of mega sporogenesis in higher plants. **16**

OR

Write notes on-

- a) Cytoskeleton of the embryo sac. **8**
b) Types of haustoria and its function in angiosperms. **8**

4. What is incompatibility of pollen. Describe in brief various types of interspecific incompatibility in higher plants. **16**

OR

Write notes on-

- a) Abiotic and Biotic pollination methods. **8**
b) Pollen allelopathy. **8**

5. Write short notes on- **4x4**

- a) Pollen tetrad development.
b) Role of mitochondrial genome in male sterility.
c) Carpel determination.
d) Floral attractants and rewards to pollinators
