

M.Sc.(Botany) (New CBCS Pattern) Semester - III  
**PSDBOTT11-1 - Paper-XI : Reproductive Biology of Angiosperm-I**

P. Pages : 1

Time : Three Hours



**GUG/S/23/11244**

Max. Marks : 80

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

**1. Define microsporogenesis. Describe it in details. 16**

**OR**

Write on:

- a) Molecular biology of Meiosis. 8  
b) Pollen wall protein and its significance. 8

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

**OR**

Write on:

- a) Pollen abortion and male sterility. 8  
b) Physiological and biochemical aspects of pollen. 8

**3. Describe monosporic, bisporic and tetrasporic types of embryo sac. 16**

**OR**

Write on:

- a) Carpel determination. 8  
b) Role of Antipodal and central cell. 8

**4. What is pollination? Describe its mechanism with floral attractants and rewards. 16**

**OR**

Write on:

- a) Self incompatibility and its methods. 8  
b) Parasexual hybridization. 8

**5. Write short notes on:**

- a) Role of tapetum. 4  
b) Gametocides 4  
c) Nutrition of embryo sac. 4  
d) Pollen hydration and its germination. 4

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