

M.Sc. (Botany) (CBCS Pattern) Semester-II
PSCBOTT06 - Paper-VI - Plant Development and Reproduction

P. Pages : 1

Time : Three Hours



GUG/S/25/11196

Max. Marks : 80

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

1. Describe organization of Shoot Apical Meristem (SAM) at cytological and molecular level. **16**

OR

Write on:

- a) Chemical nature and role of Auxin in SAM development. **8**
b) Control of cell division in SAM. **8**

2. Describe organization of Root Apical Meristem (RAM). **16**

OR

Write on:

- a) Homeotic mutants in Arabidopsis. **8**
b) Differentiation of trichome on leaf epidermis. **8**

3. Describe structure of Anther and explain role of tapetum in pollen development. **16**

OR

Write on:

- a) Organization of Embryo Sac. **8**
b) Pollen-Stigma interaction. **8**

4. Give brief account on seed dormancy, its importance and methods for overcoming seed dormancy. **16**

OR

Write on:

- a) Embryogenesis. **8**
b) PCD in life cycle of plants. **8**

5. Write short notes on:

- a) Gibberellins **4**
b) Photoperiodism **4**
c) In-vitro fertilization **4**
d) Polyembryony **4**
