

M.Sc.(Botany) CBCS Pattern Semester-IV
PSCBOTT15.1 - (DSE-II) - Paper-XV : Reproductive Biology of Angiosperm-II

P. Pages : 1

Time : Three Hours



GUG/W/23/11358

Max. Marks : 80

- Notes : 1. All questions are compulsory and carry equal marks.
2. Illustrate your answer with suitable examples and diagram.

1. Define endosperm and describe different types of endosperm and note on food reserve in endosperm. **16**

OR

Write on:

- a) Double fertilization and triple fusion. **8**
b) In-Vitro fertilization. **8**

2. What is polyembryony? Describe its induction and practical importance. **16**

OR

Write on:

- a) Ultrastructure of suspensor with its physiology. **8**
b) Embryo-endosperm relation. **8**

3. What are the nutritional aspects of embryo culture with respect to morphological and physiological considerations. **16**

OR

Write on:

- a) Anther and pollen culture. **8**
b) Somatic embryogenesis. **8**

4. Describe isolation of protoplast and its culture methods. **16**

OR

Write on:

- a) Production of cybrids and hybrids. **8**
b) Biotransformation and Bioreactors. **8**

5. Write short notes on:

- a) Endosperm mutants. **4**
b) Rest period in zygote. **4**
c) Apospory. **4**
d) Cell culture. **4**
