

M.Sc.(Botany) (CBCS Pattern) Fourth Semester CBCS
PSCBOTT15.1 / Course Code - PSDBOTT15 (DSE-II) Paper-XV
Reproductive Biology of Angiosperm-II

P. Pages : 1

Time : Three Hours



GUG/W/18/11358

Max. Marks : 80

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

1. Write account on endosperm and its types. Explain cytological status of endosperm. **16**

OR

Write on –

- a) Isolation and characterization of sperm. **8**
b) In-vitro fertilization. **8**

2. Explain ultrastructure of Zygote. Write about rest period in zygote embryonic formulae. **16**

OR

Write on

- a) Induction of polyembryony. **8**
b) Physiology and biochemistry of suspensor. **8**

3. Explain concept and scope of biotechnology with special reference to anther and pollen culture. **16**

OR

Write on

- a) Causes and classification of Apomixes. **8**
b) Melissopalynology. **8**

4. Explain fusion of protoplasts and selection of fusion products and its consequences. **16**

OR

Write on

- a) Cybrids and hybrids. **8**
b) Production of useful compounds through cell culture. **8**

5. Write short notes on
- a) Gynogenesis. **4**
b) Embryo-endosperm relation. **4**
c) Embryogenesis from callus. **4**
d) Bioreactors. **4**
