

M.Sc. (Botany) (NEP Pattern) Semester-IV
**04MSCBOT05.2 Elective (DSE) Paper-III - Reproductive Biology of
Angiosperm-IV**

P. Pages : 1

Time : Three Hours



GUG/S/25/16322

Max. Marks : 80

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

1. Explain different types of seed dormancy its factors responsible for it. **16**

OR

- a) Explain types of seed dispersal and its mechanism. **8**
b) Methods to overcome dormancy. **8**

2. Explain different types of fruits on the basis of origin and their dehiscence. **16**

OR

- a) Regulation of ethylene synthesis during fruit development. **8**
b) Explain chloroplast to chromoplast conversion and color change. **8**

3. What is mellitopalynology? Give role of apiary in crop development. **16**

OR

- a) Explain diplospory and significance of apomixis. **8**
b) Somatic embryogenesis. **8**

4. Explain different methods of isolation of protoplast and its fusion. **16**

OR

- a) Production of secondary metabolites through cell culture. **8**
b) Bioreactors and its perspective. **8**

5. Write short notes:

- a) Significance of seed dispersal. **4**
b) sugars and Acids. **4**
c) Cellular totipotency. **4**
d) Cybrids. **4**
