

M.Sc.(Botany) (NEP Pattern) Semester-II  
**02MSCB-2 - DSC Major Paper-II - Plant Development & Embryology**

P. Pages : 1

Time : Three Hours



**GUG/W/24/15342**

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 the organization of Shoot Apical Meristem (SAM). **16**  
**OR**  
Write notes on:  
a) Chemical nature and role of Auxin. **8**  
b) Control of cell division and cell communication. **8**
- 2.** Explain the organization of Root Apical Meristem (RAM). **16**  
**OR**  
Write notes on-  
a) Differentiation of leaf mesophyll. **8**  
b) Florigen concept and photoperiodism. **8**
- 3.** Describe in details on microsporogenesis. **16**  
**OR**  
Write notes on:  
a) Monosporic and Bisporic types of embryo sac. **8**  
b) Types of ovule. **8**
- 4.** Describe in details the abiotic and biotic agents of pollination. **16**  
**OR**  
Write notes on:  
a) Pollen-pistil interaction. **8**  
b) Post pollination events. **8**
- 5.** Write short notes on-  
a) Cytokinin. **4**  
b) Phyllotaxy. **4**  
c) Sperm dimorphism. **4**  
d) Pollen allelopathy. **4**

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