

**M.Sc. II Semester Degree Examination, October - 2023****BOTANY****Plant developmental biology****(NEP)**

Time : 3 Hours

Maximum Marks : 70

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- Note :**
- Answer **5** question in all.
 - Question **No. 1** is **Compulsory**.
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1. Write account on organization and development of RAM and SAM. **14**
2. Explain ABC model of flower development. **14**
3. Explain phases of endosperm development. Write note on storage protein. **14**
4. Describe generation and characterization of developmental mutants. **14**
5. Describe biological database with examples and mention its application. **14**
6. (a) What is the difference between microsporogenesis and megasporogenesis ? **5**
(b) Write a note on a suspensor development in seed. **5**
(c) How does nuclear cytology differ in monocot and dicots ? **4**
7. (a) Detail on temporal and spatial expression pattern of developmental regulators in plants. **5**
(b) Explain role of genetic manipulation in plant breeding. **5**
(c) What are the effects of light on seedling growth ? **4**
8. Write short notes on the following :
 - (a) Seed dormancy and its types. **5**
 - (b) Database for molecular interactions in gene networks. **4**
 - (c) Ethical considerations of functional genomics in plants. **5**

