

**M.Sc. II Semester Degree Examination, September/October - 2022****BOTANY****DSC 7 : 21 BOT2C7L : Plant Developmental Biology**

Time : 3 Hours

Maximum Marks : 70

**Note :** (i) Question number 1 is **compulsory**.(ii) Answer **any five**.

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|----|-----|--|----|
| 1. | (a) | Explain the meristems of root and shoot apical.                                  | 10 |
|    | (b) | Explain lateral root hairs.  | 4  |
| 2. | (a) | Explain microbial interaction.   | 7  |
|    | (b) | Explain organogenesis.   | 7  |
| 3. | (a) | Explain radial patterning during vascular development.                           | 7  |
|    | (b) | Explain leaf growth and differentiation.   | 7  |
| 4. | (a) | Explain the importance of ABC genes leading to the development of floral organs. | 10 |
|    | (b) | Explain the different types of stomatas and its importance in angiosperms.       | 4  |
| 5. | (a) | Explain microsporogenesis.   | 7  |
|    | (b) | Explain age dependent path ways.   | 7  |
| 6. | (a) | Explain embryogenesis in angiosperms.  | 7  |
|    | (b) | Explain polyembryony.  | 7  |
| 7. | (a) | Write a note on plant growth harmones.   | 7  |
|    | (b) | Explain seed dormancy and its importance.  | 7  |
| 8. | (a) | Write a note on tropisms.  | 4  |
|    | (b) | Write a note on proteonics.  | 5  |
|    | (c) | Write a note on plant genomics.  | 5  |

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