



M.Sc. II Semester Degree Examination, September/October - 2022

BOTANY

21BOT2C4P : Plant Anatomy & Histochemistry

Time : 3 Hours

Maximum Marks : 70

Note : Answer *any five* of the following questions with question No.1 is **Compulsory**.

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| 1. | Discuss anatomical features of leaf & stem of <i>Amaranthus viridis</i> . | 14 |
| 2. | Discuss in detail apical meristems in pteridophytes with examples. | 14 |
| 3. | Explain stages of anomalous secondary growth in monocots. | 14 |
| 4. | What is Double staining technique ? Explain in detail procedures of double staining technique. | 14 |
| 5. | Discuss in detail the role of Carnoy's fluid, FAA, Safranin, fast green in staining of plant tissue. | 14 |
| 6. | (a) Anatomical features of leaf of <i>Nerium</i> | 4 |
| | (b) Ultrastructure of cell wall | 5 |
| | (c) Secondary xylem of <i>cycas</i> sps. | 5 |
| 7. | (a) Principles of histochemical stains | 4 |
| | (b) C4 photosynthesis | 5 |
| | (c) TBA method of staining | 5 |
| 8. | (a) Transverse Section of stem of <i>Nyctanthes arbor tristis</i> | 5 |
| | (b) Chemistry of cell wall | 4 |
| | (c) Vascular cambium | 5 |

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