

M.Sc. BOTANY PRACTICAL EXAMINATION

M.Sc. (Previous) Practical Examination (Botany)

The practical examination of M.Sc. Previous shall be completed in two days

- Day I - Based on Theory Paper I, II & III M.M. 120
- Day II - Based on Theory Paper IV & V M.M. 80

Day I - Based on Theory Paper I, II & III Time-7:30 Hours M.M. 120

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| 1. Fungal material (at least two); preparation and identification | 16 |
| 2. Algal material (at least 3 from a mixture); preparation and identification | 15 |
| 3. Bryophyte (one); preparation and identification | 12 |
| 4. Pteridophyte (one); detailed study, preparation and identification | 12 |
| 5. Gymnosperm (one); detailed study, preparation and identification | 15 |
| 6. Experiment based on Bacteria | 06 |
| 7. Comment upon spots 1-8 | 24 |
| 8. Practical record, prepared slides and collection | 10 |
| 9. Viva-voce | 10 |

Day II - Based on Theory Paper IV & V Time-5:30 Hours M.M. 80

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| 1. Experiment on Ecology | 14 |
| 2. Experiment on Soil Science | 07 |
| 3. Stages of mitosis | 08 |
| 4. Stages of meiosis | 08 |
| 5. Problem based on Bio-statistics | 05 |
| 6. Emasculation | 05 |
| 7. Comment upon spots 1-6 | 18 |
| 8. Practical record, Collection etc. | 15 |

M.Sc. (Final) Practical Examination (Botany)

There shall be two practical examinations in M.Sc. Final.

- First Practical (General - Based on Theory Paper I, II, III & V) M.M. 150
- Second Practical (Special - Based on Theory Paper V) M.M. 50

FIRST PRACTICAL (General) Time - 9:00 Hours M.M. 150 **(Based on Theory Paper I, II, III & IV)**

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| 1. Description and taxonomic position of angiospermic plant | 10 |
| 2. Description and taxonomic position angiospermic flower | 08 |
| 3. Histological preparation of angiospermic plant (stem or leaf) | 10 |
| 4. Embryology experiment | 07 |
| 5. Microbiology experiment | 10 |
| 6. Microtechnique experiment | 10 |
| 7. Plant Physiology experiment | 18 |
| 8. Biochemistry experiment | 15 |
| 9. Viva-voce | 10 |
| 10. Comment upon spots 1-10 | 30 |
| 11. Practical record, prepared slides and collection | 12 |
| 12. Herbarium | 10 |

SECOND PRACTICAL (Special Paper) Time - 4 hours M.M. - 50 **(Based on theory Paper V)**

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| A- Special Paper – Plant Pathology Practical | Time - 4 Hours | M.M. 50 |
| 1. Study of the host parasite relation of a pathogen | | 12 |
| 2. Preparation, description and identification of a pathogen | | 10 |
| 3. Preparation of culture medium or inoculation | | 05 |
| 4. Comment upon spots 1-5 | | 10 |
| 5. Viva-voce | | 05 |
| 6. Practical record and pathological collection | | 08 |

B- Special Paper – Plant Physiology Practical Time : 4 Hours M.M. 50

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| 1. Experiment on metabolism | 15 |
| 2. Experiment on growth | 12 |
| 3. Viva-voce | 05 |
| 4. Comment upon spot 1-5 | 10 |
| 5. Practical record | 08 |

C- Special Paper – Forest Ecology Practical Time : 4 Hours M.M. 50

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| 1. Forest vegetation and analysis | 15 |
| 2. Forest soil study | 12 |
| 3. Comment upon spot 1-5 | 10 |
| 4. Viva-voce | 05 |
| 5. Practical record and Collections | 08 |

D- Special Paper–Cytogenetics and Plant Breeding, Time:4 Hours M.M. 50

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| 1. Preparation of a fixative or a stain | 04 |
| 2. Squash preparation for mitosis | 04 |
| 3. Smear preparation for meiosis | 07 |
| 4. Camera lucida drawing or preparation of tissue culture medium | 04 |
| 5. Emasculation technique | 03 |
| 6. Biostatistics, numerical problem and design | 05 |
| 7. Viva-voce | 05 |
| 8. Comment upon spot 1-5 | 10 |
| 9. Practical record | 08 |

E- Special Paper – Environmental Botany Time : 4 Hours M.M. 50

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| 1. Experiment on practical exercise No. 1 | 11 |
| 2. Experiment on practical exercise No. 2 | 08 |
| 3. Experiment on practical exercise No. 3 | 08 |
| 4. Comment upon spot 1-5 | 10 |
| 5. Viva-voce | 05 |
| 6. Practical record | 08 |
