

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION

M.Sc. I (Botany), SEMESTER – I (NEP) DSC-I & II

PRACTICAL I: CELL AND MOLECULAR BIOLOGY AND EVOLUTION AND DIVERSITY OF ALGAE AND FUNGI

Time: 6 hrs.

Marks: 50+50=100

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| Q.1. Perform Any One Major Experiment on Cell and Molecular biology | 10M |
| Q.2. Isolation and Identification of any two algal forms from the given material. | 10M |
| Q.3. Isolation and Identification of any two fungal forms from the given material. | 10M |
| Q.4. Comment on the given experiment from CMB | 05M |
| Q.5. Comment on the given experiment from EDAF | 05M |
| Q.6. Spotting (cell and molecular biology (1), Algae (2), fungi (2)) | 05M |
| Q.7. Viva-voce | 05M |

Practical Internal

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|---------------------------------|-----|
| a. Record/ Assignments | 10M |
| b. Viva Voce | 10M |
| c. Attendance | 10M |
| d. Students overall performance | 10M |
| e. Activity/ Field visit | 10M |

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION

M.Sc. I (Botany), SEMESTER – I (NEP) DSC III

PRACTICAL-II: ECONOMIC BOTANY, RESOURCE UTILIZATION AND PLANT DEVELOPMENT

Time: 3 Hrs.

Marks: 25+25=50

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| Q.1: Morphology, Botanical identification and Economic importance of food/fiber crop (Any One) | 05 M |
| Q.2: Perform Any Two-Phytochemical Test | 10M |
| Q.3: Setting and working of any major experiment based on Plant Development | 05M |
| Q.4: Viva- voce | 05M |

Practical Internal

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|----------------------------------|-----|
| a. Record/ Assignments | 05M |
| b. Viva Voce | 05M |
| c. Attendance | 05M |
| d. Student's overall Performance | 05M |
| e. Activity/ Field visit | 05M |

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION
M.Sc. I (Botany), SEMESTER – I (NEP) DSE I

Practical III: Angiosperm Taxonomy, Phytochemistry and Pharmacognosy

Time: 3 Hrs

Marks: 25+25=50

Q.1: Describe any Two Families from Angiosperm 10M

Q.2: Preparation of artificial key 05M

Q.3: Submission of Herbarium sheet 05M

Q.4: Viva-Voce 05M

Practical Internal

a. Record/ Assignments 05M

b. Viva Voce 05M

c. Attendance 05M

d. Student's overall Performance 05M

e. Activity/ Field visit 05M

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION
M.Sc. I (Botany), SEMESTER – I (NEP) DSE I

Practical III: Molecular Systematics of Plants

Time: 3 Hrs

Marks-25+25=50

Q.1: Systematic description of Basal Monocot and Dicot 15 M

Q.2: Preparation of artificial key 05 M

Q.3: Viva-Voce 05M

Practical Internal

a. Record/ Assignments 05M

b. Viva Voce 05M

c. Attendance 05M

d. Student's overall Performance 05M

e. Activity/ Field visit 05M

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION
M.Sc. I (Botany), SEMESTER – I (NEP) DSE I

Practical III: Plant Tissue Culture-I

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|--|------------------------|
| Time: 3 Hrs | Marks- 25+25=50 |
| Q.1: Demonstration of a sterilization technique | 05M |
| Q.2: Preparation of MS medium | 05M |
| Q.3: Demonstration of callus culture technique/growth measurements | 10M |
| Q.4: Viva-Voce | 05M |
| Practical Internal | |
| a. Record/ Assignments | 05M |
| b. Viva Voce | 05M |
| c. Attendance | 05M |
| d. Student's overall Performance | 05M |
| e. Activity/ Field visit | 05M |

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION
M.Sc. I (Botany), SEMESTER – I (NEP) DSE I

Practical III: Advanced Plant Physiology Elective

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|--|------------------------|
| Time: 3 Hrs | Marks- 25+25=50 |
| Q.1: Setting and working on any major experiment | 10M |
| Q.2: Setting and working on any Minor experiment | 05M |
| Q.3: Estimation of biological compounds | 05M |
| Q.4: Viva-Voce | 05M |
| Practical Internal | |
| a. Record/ Assignments | 05M |
| b. Viva Voce | 05M |
| c. Attendance | 05M |
| d. Student's overall Performance | 05M |
| e. Activity/ Field visit | 05M |

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION
M.Sc. I (Botany), SEMESTER – I (NEP) DSE I
Practical III: Basic and Applied Mycology

Time: 3 Hrs

Marks-25+25=50

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| Q.1. Salient features and identification of Fungal material (Any two) | 10M |
| Q.2. Cultivation of Mushroom or isolation and identification of Mycorrhiza (Any one) | 05M |
| Q.3. Spotting (fungal material/slide) (Any Five) | 05M |
| Q.4. External Viva voce | 05M |

Practical Internal

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|----------------------------------|-----|
| a. Record/ Assignments | 05M |
| b. Viva Voce | 05M |
| c. Attendance | 05M |
| d. Student's overall Performance | 05M |
| e. Activity/ Field visit | 05M |

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION
M.Sc. I (Botany), SEMESTER – I (NEP) DSE I

Practical III: Molecular Biology Biotechnology & Plant Breeding

Time: 3 Hrs

Marks-25+25=50

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|--|-----|
| Q.1. Setting and working of any One Major experiment | 10M |
| Q.2. Setting and working of any One Major experiment | 05M |
| Q.3. Comment on Principle and working of analytical instrument | 05M |
| Q.4. External Viva voce | 05M |

Practical Internal

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|---|-----|
| a. Record/ Assignments | 05M |
| b. Viva Voce | 05M |
| c. Attendance | 05M |
| d. Student's overall Performance | 05M |
| e. Activity/ Field visit/ Institution visit | 05M |

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION

M.Sc. I Botany, Semester- II (NEP) DSC I.2 & II.2

PRACTICAL IV: (Plant Physiology, Evolution and Diversity of Bryophytes and Pteridophytes)

TIME: -6 Hrs.

Marks: -50 + 50 = 100

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| Q.1: Perform Major Experiment in Plant Physiology. | 10M |
| Q.2: Perform Minor Experiment in Plant Physiology. | 05M |
| Q.3: Identification of given Bryophytic form on basis of Morphology, Anatomy, and Reproductive organs from given material (One double stained slide preparation). | 10M |
| Q.4. Identification of given Pteridophytic material on basis of morphology anatomy and reproductive organs (one double-stained slide preparation). | 10M |
| Q.5. Comment on one Plant Physiology experiment set up. | 05M |
| Q.6. Spotting (Bryophytes (02), Pteridophytes (02) and Fossil specimen (01) | 05M |
| Q.7: Viva- voce | 05M |

Practical Internal

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|----------------------------------|-----|
| a. Record/ Assignments | 10M |
| b. Viva Voce | 10M |
| c. Attendance | 10M |
| d. Student's overall performance | 10M |
| e. Activity/ Field visit | 10M |

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION

M.Sc. I (Botany), SEMESTER – II (NEP) DSC III.2

PRACTICAL V: Genetics, Plant Breeding and Plant Biochemistry

Time: 3 Hrs.

Marks: 25+25=50

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|--|-----|
| Q.1. Perform any one genetic experiment. | 05M |
| Q.2. Perform any one experiment on Plant breeding. | 05M |
| Q.3. Perform one major Plant Biochemistry experiment. | 05M |
| Q.4. Spotting (Genetics and Plant breeding (03) Biochemistry (02)) | 05M |
| Q.5. Viva – voce | 05M |

Practical Internal

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|----------------------------------|-----|
| a. Record/ Assignments | 05M |
| b. Viva Voce | 05M |
| c. Attendance | 05M |
| d. Student's overall Performance | 05M |
| e. Activity/ Field visit | 05M |

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION
M.Sc. I (Botany), SEMESTER – II (NEP) DSE II

Practical VI: Angiosperm Taxonomy, Phytochemistry and Pharmacognosy

Time: 3 Hrs

Marks: 25+25=50

- Q.1: Systematic description of Two Angiospermic plants (one from Dicotyledons and one from Monocotyledons) 15M
- Q.2: Preparation of artificial key 05 M
- Q.3: Viva-Voce 05M

Practical Internal

- a. Record/ Assignments 05M
- b. Viva Voce 05M
- c. Attendance 05M
- d. Student's overall Performance 05M
- e. Activity/ Field visit 05M

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION
M.Sc. I (Botany), SEMESTER –II (NEP) DSE II

Practical VI: Molecular Systematics of Plants

Time: 3 Hrs

Marks-25+25=50

- Q.1: Systematic description of any Two Plants. 15 M
- Q.2: Any one minor experiment on molecular systematics 05 M
- Q.3: Viva-Voce 05M

Practical Internal

- a. Record/ Assignments 05M
- b. Viva Voce 05M
- c. Attendance 05M
- d. Student's overall Performance 05M
- e. Activity/ Field visit 05M

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION
M.Sc. I (Botany), SEMESTER – II (NEP) DSE II

Practical VI: Plant Tissue Culture

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|--|------------------------|
| Time: 3 Hrs | Marks- 25+25=50 |
| Q.1: Preparation of medium and stalk solution | 10M |
| Q.2: Demonstration of any two In Vitro Culture Technique | 10M |
| Q.3: Viva-Voce | 05M |
| Practical Internal | |
| a. Record/ Assignments | 05M |
| b. Viva Voce | 05M |
| c. Attendance | 05M |
| d. Student's overall Performance | 05M |
| e. Activity/ Field visit | 05M |

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION
M.Sc. I (Botany), SEMESTER – II (NEP) DSE II

Practical VI: Advanced Plant Physiology

| | |
|---|------------------------|
| Time: 3 Hrs | Marks- 25+25=50 |
| Q.1: Setting and working on any One Major Plant Physiology experiment | 10M |
| Q.2: Setting and working on any One Plant Physiology Minor experiment | 05M |
| Q.3: Estimation of biological compounds | 05M |
| Q.4: Viva-Voce | 05M |
| Practical Internal | |
| a. Record/ Assignments | 05M |
| b. Viva Voce | 05M |
| c. Attendance | 05M |
| d. Student's overall Performance | 05M |
| e. Activity/ Field visit | 05M |

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION
M.Sc. I (Botany), SEMESTER – II (NEP) DSE II
Practical VI: Basic and Applied Mycology

Time: 3 Hrs

Marks-25+25=50

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|--|-----|
| Q.1. Salient features and identification of Fungal material (Any two) | 10M |
| Q.2. Isolation of secondary metabolite from one fungi or isolation of endophytes (Any one) | 05M |
| Q.3. Spotting (fungal material/slide) (Any Five) | 05M |
| Q.4. Viva voce | 05M |

Practical Internal

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|----------------------------------|-----|
| a. Record/ Assignments | 05M |
| b. Viva Voce | 05M |
| c. Attendance | 05M |
| d. Student's overall Performance | 05M |
| e. Activity/ Field visit | 05M |

SANT GADGE BABA AMRAVATI UNIVERSITY, AMRAVATI
PRACTICAL EXAMINATION
M.Sc. I (Botany), SEMESTER – II (NEP) DSE II

Practical VI: Molecular Biology Biotechnology & Plant Breeding

Time: 3 Hrs

Marks-25+25=50

- | | |
|--|-----|
| Q.1. Setting and working on Any One Major experiment | 10M |
| Q.2. Setting and working on Any One Major experiment | 05M |
| Q.3. Comment on Principle and working of analytical instrument | 05M |
| Q.4. Viva voce | 05M |

Practical Internal

- | | |
|--|-----|
| a. Record/ Assignments | 05M |
| b. Viva Voce | 05M |
| c. Attendance | 05M |
| d. Student's overall Performance | 05M |
| e. Activity/ Field visit / Institution visit | 05M |