

**M.Sc Botany : Semester Structure**  
**M.Sc Previous Year**  
**I Semester :PG Sem-I**

| Paper     | Code     | Description                 | Marks | Credits |
|-----------|----------|-----------------------------|-------|---------|
| P-I       | B040701T | Diversity of Plant Microbes | 25+75 | 4       |
| P-II      | B040702T | Algae and Bryophyta         | 25+75 | 4       |
| P-III     | B040703T | Pteridophyta                | 25+75 | 4       |
| P-IV      | B040704T | Gymnosperm                  | 25+75 | 4       |
| PRACTICAL | B040705P | BASED ON PAPER I,II,III,IV  | 25+75 | 4       |
| PROJECT   | B040706P | RESEARCH PROJECT            |       | 4       |

**IInd Semester :PG Sem II**

| Paper     | Code     | Description                            | Marks | Credits |
|-----------|----------|--|-------|---------|
| P-I       | B040801T | Taxonomy of higher Plant & Economic    | 25+75 | 4       |
| P-II      | B040802T | Cell Biology Of Plants                 | 25+75 | 4       |
| P-III     | B040803T | Genetics                               | 25+75 | 4       |
| P-IV      | B040804T | Structure, Develop and Repn of Flowery | 25+75 | 4       |
| PRACTICAL | B040805P | BASED ON PAPER I,II,III,IV             | 25+75 | 4       |
| PROJECT   | B040806P | RESEARCH PROJECT                       | 100   | 4+ 4    |

**M.Sc Botany : Semester Structure**  
**M.Sc Final Year**  
**IIIrd Semester :PG Sem-III**

| Paper     | Code     | Description                | Marks | Credits |
|-----------|----------|----------------------------|-------|---------|
| P-I       | B040901T | Microbiology               | 25+75 | 4       |
| P-II      | B040902T | Plant Physiology           | 25+75 | 4       |
| P-III     | B040903T | Biochemistry               | 25+75 | 4       |
| P-IV      | B040904T | plant Ecology              | 25+75 | 4       |
| PRACTICAL | B040905P | BASED ON PAPER I,II,III,IV | 25+75 | 4       |
| PROJECT   | B040906R | RESEARCH PROJECT           |       | 4       |

**IVth Semester :PG Sem-IV**

| Paper     | Code     | Description                            | Marks | Credits |
|-----------|----------|--|-------|---------|
| P-I       | B040001T | Molecular biotechnology                | 25+75 | 4       |
| P-II      | B040002T | Environmental Biology                  | 25+75 | 4       |
| P-III     | B040003T | Special Paper I : Plant Pathology      | 25+75 | 4       |
| P-IV      | B040004T | Special Paper II: Plant Tissue Culture | 25+75 | 4       |
| PRACTICAL | B040005P | BASED ON PAPER I,II,III,IV             | 25+75 | 4       |
| PROJECT   | B040006R | RESEARCH PROJECT                       | 100   | 4+ 4    |

**Subject Prerequisites:** To study this subject a student must have had the subject(s) Botany at UG Level.

**Course Structure:** The courses will be based on Choice Based Credit System (CBCS) structure developed by the University. There will be four compulsory or elective core courses of Botany in each semester. Apart from these, one minor elective course of other faculty is to be chosen by a student in the first year of M.Sc. (Botany). In each semester, there will be one research project of 04 credits.

### **Programme (M. Sc.) Objectives:**

This programme has been designed to train and enable students to understand the relationship between science and society as well as logical, scientific and ethical issues related to science. In addition to this, the students will be able to think critically for the formulation of hypotheses and experimental designing based on the scientific method, which will make the students readily employable in various streams of teaching, research, civil services and in industries.

**Programme Specific Outcomes (PSOs):** After completing M.Sc. (with Botany), the following will be the PSOs

**PSO-1:** It is expected that after successfully completing M.Sc. Botany, students will develop deeper theoretical & Practical knowledge of different branches of Botany like Phytotechnology, Plant taxonomy, Anatomy, Mycology, Microbiology, Physiology, Biochemistry, Cell biology, Genetics, Molecular biology, Medicinal Botany, Pharmacognosy, Environmental issues etc, making them capable of understanding the societal, environmental issues, demands and their solutions.

**PSO-2:** This program has a strong theoretical basis that will help students in evolutionary relationship of lower and higher plants by using the key characters which is expected from a student of Botany to support the other branches of knowledge related to plants.

**PSO-3:** Many of the courses in the programme have been carefully designed that will help the students for qualifying competitive exams like IAS, IFS, CSIR NET, SET, TGT, PGT and to write research proposals for grants.

**PSO-4:** Continuous internal assessment provides ample opportunity to the students for improvement after every evaluation. Seminar and field visits system groom the personality of the students and enables them to present oneself with confidence, develop a reasonably

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well compiled content and discuss. Assignments enable the students to compile the solutions of the given problems with optimal discussion.

**PSO-5:** In each semester of the programme, each student is given research project of their own choice to allow students to understand various steps of solving a research problem. Thus, this programme will help to develop research aptitude at PG level with identification of gaps in knowledge and relevance of their solutions for the society.

**PSO 6.** The student completing the course will be capable of executing research projects.