Maharaja Suhel Dev University,
Azamgarh

SYLLABUS

Class: U.G. Year 1st, Semester 2nd

Course: Botany (Minor)

Course Title: Introduction to Archegoniates and Flowering Plants

Unit I

- Introduction to Archegoniates.
- Definition and characteristics of Archegoniates (Bryophyta, Pteridophyta, Gymnospermae).
- General accounts of Bryophyta (structure, reproduction, and life cycle).

Unit II

- General account of Pteridophyta (structure, reproduction, and life cycle)
- Heterospory and steler variation among Pteridophytes.
- General characteristics of Gymnosperms.
- Reproduction, life cycle and economic importance of Gymnosperms.

Unit III

- Definition and characteristics of Angiosperms.
- Morphology of root, stem & leaves and their modifications.
- General account of inflorescence, flower, and fruit types.

Unit IV

- General characteristics and types of meristem
- Anatomy of root, stem and leaf
- Structure of microsporangium and microspores
- Structure of megasporangium and megaspores

(ABDULLAH)
Convener Botany

Maharaja Suheldev University
Azamgarh
SYLLABUS

Class: UG 2nd Year 4th Semester

Course: Botany (Minor)

Course Title: Environmental Biology

Unit I: Introduction to Environment and Ecology

- Definition, scope, and importance of Environmental Biology
- Components of environment: biotic and abiotic
- Basic ecological concepts: habitat, niche, adaptation

Unit II: Ecosystems and Energy Flow

- Structure and function of ecosystems
- Food chains, food webs, ecological pyramids
- Energy flow and productivity in ecosystems

Unit III: Biodiversity & Conservation

- Definition and levels of biodiversity
- Importance of biodiversity in human life
- Threats to biodiversity: deforestation, pollution, climate change
- Conservation methods: in-situ and ex-situ

Unit IV: Environmental Issues & Sustainable Development

- Types of pollution: air, water, soil, noise
- Global environmental problems: ozone depletion, greenhouse effect, global warming
- Concept of sustainable development and environmental ethics