

B.Sc. Life Sciences-Botany

Annexure-I

Column 1: Outline of the Syllabus (Blocks and Units details)

Semester- I: Biodiversity (Microbes, Algae, Fungi and Archegoniates)

Following are four Blocks in *Biodiversity (Microbes, Algae, Fungi and Archegoniates)* paper and each block has four units. Further there are two blocks in the Practical syllabus each having four units.

Block 1: Microbes (Virus and Bacteria)

Block 2: Thallophytes

Block 3: Archegoniates-I: (Bryophytes and Pteridophytes)

Block 4: Archegoniates –II: (Gymnosperms)

Semester - II: Plant Anatomy and Embryology

Following are four Blocks in *Plant Anatomy and Embryology* paper and each block has four units. Further there are two blocks in the Practical syllabus each having four units.

Block 1: Anatomy-I (Primary structure)

Block 2: Anatomy-II (Secondary growth and wood anatomy)

Block 3: Reproductive Botany -I

Block 4: Reproductive Botany -II

Semester- III: Plant Ecology and Taxonomy

Following are four Blocks in *Plant Ecology and Taxonomy* paper and each block has four units. Further there are two blocks in the Practical syllabus each having four units.

Block 1: Introduction, Ecological factors and Plant communities

Block 2: Ecosystem and phytogeography

Block 3: Introduction to Plant Taxonomy and Herbarium

Block 4: Classification and Families

Semester-IV: Plant Physiology and Metabolism

Following are four Blocks in *Plant Physiology and Metabolism* paper and each block has four units. Further there are two blocks in the Practical syllabus each having four units.

Block 1: Water Relations

Block 2: Photosynthesis

Block 3: Enzymes

Block 4: Plant growth regulators

Semester-V: Plant Genetics and Cell Biology

Following are four Blocks in *Plant Genetics and Cell Biology* paper and each block has four units. Further there are two blocks in the Practical syllabus each having four units.

Block 1: Mendelism and laws of Inheritance

Block 2: Linkage, crossing over, chromosome mapping, gene mutations

Block 3: Cell as a unit of structure and functions

Block 4: Structural organization and functions of plant cell organelles, Cell division

Semester-V: Economic Botany

Following are four Blocks in *Economic Botany* paper and each block has four units. Further there are two blocks in the Practical syllabus each having four units.

Block 1: Origin of Cultivated Plants and their importance

Block 2: Legumes and Oil yielding plants, their origin, morphology and uses

Block 3: Spices and Beverages, their economic importance and study of their morphology

Block 4: Drug-yielding plants, Timber plants and Fibres

Semester-VI: Phytopathology

Following are four Blocks in *Phytopathology* paper and each block has four units. Further there are two blocks in the Practical syllabus each having four units.

Block 1: Introduction of Plant pathology & Plant pathogens

Block 2: Pathogenesis, Enzymes and Defence mechanism

Block 3: Plant Diseases

Block 4: Plant disease managements

Semester-VI: Seed Biology and Technology

Following are four Blocks in *Seed Biology and Technology* paper and each block has four units. Further there are two blocks in the Practical syllabus each having four units.

Block 1: Flower biology & Seed formation

Block 2: Seed sampling, Cultural practices

Block 3: Study of Seed borne pathogens and Seed treatment to control seed borne diseases

Block 4: Seed Production Technology, Seed Certification, Seed banks