Department of Botany

M.Sc. Botany

S.No.	Course Code	Course Name	Course Outcomes
SEMESTER- I			
1.	18PBYC11	Core Course -I: Taxonomy of Angiosperms	1. Understand the morphological features of vegetative, inflorescence, fruits and seedcharacters. 2. Provide knowledge on botanical nomenclature, classifications, merits and demerits ofvarious systems of classifications. 3. Understand the systematics positions of the selected families of the flowering plants withtheir economic importance. 4. Provide the knowledge about the identification of plant species. 5. Students to be familiar with local flora and herbarium techniques.
2.	18PBYC12	Core Course -II: Developmental Botany	1. Provide information about internal structure of stem, root and leaf. 2. Improve the knowledge about the general aspects of plant reproductive organs and embryoand its development. 3. Studied with a fundamental practices of plant embryology. 4. Provide the knowledge about the various aspects of morphogenesis. 5. Identifying the key aspects of embryology of Angiosperms. 6. Understand the process of formation of male and female sexual representatives. 7. Studied the mechanism of fertilization in angiosperms. Improve the knowledge embryo development and endosperms

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3.	18PBYC13	Core Course -III: Instrumentation and Bio-techniques	1. Learning to different types of microscopes and their uses of biological science laboratories. 2. Describe the pH measurement in soil and water samples 3. Realise the need of centrifuges and their uses in research 4. Understand the principle, Applications and different methods of chromatography. 5. Realise the importance of UV-Visible. 6. Describe the principle of flame photometer and bomb calorimeter
4.	18PBYC1P	Core Course -IV: Practical I Lab in Taxonomy of Angiosperms, Developmental Botany, Instrumentation and Biotechniques	1. Understand the floral and morphological characters of various families. 2. Helps to know the permanent herbarium preparation techniques. 3. Improve the knowledge about the plant identification. 4. Learn to the key preparations of families, Genus and species. 5. Improve the knowledge about the general aspects of plant reproductive organs and embryoand its development. 6. Learning to different types of microscopes and their uses of biological sciencelaboratories. 7. Realize the need of centrifuges and their uses in research 8. Understand the principle and different methods of chromatography.
5.	18PBY011	Major Elective Course-I: Herbal Botany	1. Provide the knowledge about the importance of medicinal plants. 2. Studied to be more familiar in medicinal plants cultivation and conservation. 3. Learn to the making and process of medicinal plants. 4. Understand the systematic position, diagnostic feature and medicinal uses of selected plants.

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			5. Improved knowledge about different systems of medicinal plants (Siddha, Ayurveda andUnani). 6. Studied that the conservation methods of medicinal plants.
6.	18PBYO12	Major Elective Course - I: Biofertilizer Technology	1. Describe the essential features Biofertilizer. 2. Provided a thorough knowledge about Biopesticides 3. Study that the structure of Algal Biofertilizer and their uses. 4. Understand the salient features of Organic Farming.
SEMESTER - II			
7.	18PBYC21	Core Course-V: Plant Diversity (Algae, Fungi and Lichens, Bryophytes, Pteridophytes and Gymnosperms	1. Describe the essential features diversity of plant kingdom and their salient features. 2. Provided a thorough knowledge about structure and life cycle pattern of algae andbryophytes. 3. Study that the structure, reproduction, culture, classifications, life-cycle of fungi. 4. Understand the salient features of Pteridophytes and Gymnosperms.
8.	18BYC22	Core Course-VI: Cell and Molecular Biology	1. Studied that about the structure and function of Cells. 2. Provide the knowledge on advances in cell biology. 3. Students to be studied about microscopy, cell organelles of Prokaryotic and Eukaryoticcells. 4. Understand gene regulation and chloroplast and mitochondria genome organization. 5. Helps to study the significance of mitosis and meiosis cell divisions. 6. Understand about the cellular components.

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			7. Gain knowledge about cell biology to selected examples of changes or losses in cellfunction.
9.	18PBYC23	Core Course-VII: Bioinformatics, Biostatics and Plant Biotechnology	1. Improve the knowledge of data collection and Biostatistics methods. 2. Understand various media, sterilization, totipotency, cell induction, organogenesis. 3. Able to apply the techniques to develop a standard protocol for Plant Tissue Culture. 4. Have comprehensive knowledge on GM technology, bio-safety relations and germplasm storage.
10.	18PBYN21	Non Major Elective Course: Mushroom Cultivation	1. Understand the cultivation process of mushrooms. 2. Provide the knowledge about spawn preparation technique. 3. Understand the various types mushroom diseases and control. 4. Provide the Knowledge about processing of mushrooms. 5. To become a entrepreneur through the knowledge of mushroom cultivation.
SEMESTER - III			
11.	18PBYC31	Core IX: Microbiology and Plant Pathology	1. Understand the basics knowledge of microbiology includes types of microbes, classificationand characterization. 2. Studied the history of microbiology and its applications. 3. Describe the classification of bacteria. 4. Explain the different types of viruses and plant diseases. 5. Provide the sufficient knowledge about the types of symptoms

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			and their causative agents ofdiseases. 6. Understand the diversity of microbes and importance of classification of microorganisms.
12.	18PBYC32	Core Course– X: Genetics and Evolution	1. Study the principles and concept of Mendelian law. 2. Gain knowledge about mutation and population genetics. 3. Understand basic structure and function of DNA and chromosomes. 4. Provide sufficient knowledge of hybridization and concepts of genetics. 5. Understand the concept of genetic recombination's at molecular level. 6. Studied the origins of the human species.
13.	18PBYC33	Core Course- XI: Biochemistry	1. Discuss different metabolic pathways. 2. Relate the characteristics and role of enzymes. 3. Comprehend the lipid metabolism. 4. Understand Hormones, Vitamins and Alkaloids
14.	18PBYC3P	Core Course- XII: Practical- III: Lab in Microbiology, Plant Pathology, Genetics, Evolution and Biochemistry	1. Understand the basics knowledge of microbiology includes types of microbes, classificationand characterization. 2. Provide the sufficient knowledge about the types of symptoms and their causative agents ofdiseases. 3. Study the principles and concept of Mendelian law. 4. Understand basic structure and function of DNA and chromosomes. 5. Comprehend the lipid metabolism.

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15.	18PBY031	Major Elective Course-II: Biodiversity and Conservation	1. Understand vegetation and their relationship with the ecosystem. 2. Provide a thorough knowledge about environmental biology and ecosystem. 3. Acquire knowledge on ecosystem organization, biogeochemical cycle and ecosystem stability. 4. Comprehend the information on biodiversity, threats and conservations.
16.	18UBYO32	Major Elective Course - II: Palynology and Pollination Biology	1. Learning about Palynology. 2. Provide the knowledge on Pollination in plants. 3. Understand the sexual incompatibility in plants. 4. Students to be familiar with embryonic processes. 5. Understand the various pollinations periods. 6. Explain the seeds dispersal mode of plants.
SEMESTER - IV			
17.	18PBYC41	Core Course - XIII: Plant Physiology	1. Describe the physiological phenomena of plants in terms of mechanisms. 2. Will know the overview of biorhythms; stress physiology of plants. 3. Understand photoperiodism and physiology of flowering.
18.	18PBYC42	Core Course-XIV: Plant Ecology	1. Understand vegetation and their relationship with the ecosystem. 2. Provide a thorough knowledge about environmental biology and ecosystem. 3. Acquire knowledge on ecosystem organization, biogeochemical cycle

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			and ecosystem stability. 4. Comprehend the information on biodiversity, threats and conservations.
19.	18PBYC4P	Core Course-XV: Practical IV- Lab in Plant Physiology and Plant Ecology	1. Understand vegetation and their relationship with the ecosystem. 2. Provide a thorough knowledge about environmental biology and ecosystem. 3. Acquire knowledge on physiological response of plants to various factors. 4. Understand the photosynthetic mechanism and related events of plants.
20.	18PBYJ41	Core Course – XV: Project	1. Inculcate Research interest among students 2. Get familiarized with basic concepts of research. 3. Identify and state the research topic. 4. Design and conduct research study accordance with the identified research need. 5. Develop skill to search online and offline sources to carryout research. 6. Apply academic skills to present the research study findings in a formal academic oralpresentations and a written research paper.