	Department of Botany													
1.1.2	2 Details of courses offer	lopment during the												
S.No.	Name of the Course	Course Code	Em	Activities Focusing on	En	Activities Focusing on	SD	Activities Focusing	Outcome					
				Employability		Entrepreneurship		on Skill						
1	Core Course I : Plant Diversity - I Algae	BU23ICCI		Algae collection from sea and identification of algae		Chart presentation on algae used in biofuel production		Role play on different types of algae	To develop a deep comprehension of the diversity, biology, and ecological roles of major algae, fungi, and lichens for ecological and applied knowledge.					
2	Core Lab Course I : Plant Diversity - I Algae	BU231CP1		Permanent Slides		Demo on Sectioning, staining and mounting		Microscopical observation of algae	To develop a practical understanding of the diversity, morphology, and ecological significance of algae, fungi,					
3	Elective Course I : Allied Botany I	BU231EC1		Preparation of agar from sea weeds		algal identification		Micropreparation and identification of algae	To provide a foundational understanding and identification of the					
4	Elective Lab Course I : Allied Botany Practical	BU231EP1		Algal visit to Idinthakarai coast		Micropreparation and identification of lower group of organisms		Preparation of algal herbarium	To cultivate expertise in gardening and floriculture techniques for creating and managing aesthetically pleasing and sustainable green spaces.					
5	Non-Major Elective NME : Nursery and Landscaping	BU231NM1						Demonstration on Gardening Techniques	To have detaied study on primitive organisms.					
6	Foundation Course: Basics of Botany	BU231FC1		Chart Preparation on Plant Modification		Model making on plant cell		Demo on different types of plant cell identification	To equip students with the knowledge and skills to harness biofertilizers, biofuels, and biopesticides for sustainable and eco-friendly agricultural					
7	Core Course II : Plant Diversity I I- Fungi, Bacteria, Viruses, Plant Pathology and Lichens	BU232CC1		Exposture visit to Biotech Laboratory and Krishi kendra, Kanyakuamri		Exposure visit to microbiology lab, Inbiotics, Nagercoil		Group discussion on pros and cons of microbes	To understand microbes, fungi and lichens and appreciate its agricultural and pharmaceutical applications.					
8	Core Lab Course II : Plant Diversity II- Fungi, Bacteria, Viruses, Plant Pathology and Lichens – Practical -II	BU232CP1		Identification of microfungi by LPCB method		Demo on gram staining techniques		Identification of diseased plant leaves	To develop practical skills for culturing and cultivation of fungi.					
9	Elective Course II : Allied Botany -II	BU232EC1		Role play on Algae		Preparation of Permanent slide			To understand the fundamental concepts of plant anatomy and					

10	Elective Lab Course II : Allied Botany Practical	BU232EP1	Demo on identification of microfungi		Microscopical observation on algae and fungi		Model making on Lichen diversity	To study the classical taxonomy with reference to different parameters and fundamental concepts of plant anatomy
11	Non Major Elective NME II : Mushroom Cultivation	BU232NM1	Hands on training on Mushroom cultivation		Production of mushroom products		Spawn preparation	To explain about various types of food technologies associated with mushroom industry.
12	Skill Enhancement Course SEC I : Botanical Garden and Landscaping	BU232SE1	Training on computer based Landscape designing		Visit to Botanical Garden		Seed ball preparation and sowing	To inculcate entrepreneurial skills in students for creative landscaping design using CAD software.
13	Major Core III - Archegoniate	BC2031	Seminar by students on Hydrophytes				Role play on Halophytes	To enrich with basics of Botany.
14	Major Elective -I (a) Herbal Botany	BC2032				\bigtriangledown		To acquire knowledge on the botanical vocabulary and taxonomical terminology to identify plants.
15	Major Elective - I (b) Nursery and Gardening	BC2033	Demo on horticutural techniques		Propagation of hybrid plants		Hands on training on layering techniques	To develop skills to become employable as professionals in traditional medicinal system.
16	Major Elective - I (c) Agricultural Botany	BC2034		\bigtriangledown				To understand making and maintenance of gardening and lawn.
17	Allied II - Theory : Plant Diversity - I (Algae, Fungi, Bryophyta and Pteridophyta)	BA2031	Display of cereals, millets and pulses and its food products		Seminar presentation about biocontrol agents		Assignment on Fungi and lichens	To understand agricultural practices, seed technology; cropping scheme and soil fertility.
18	Self Learning Course : Plant Resource Utilization	BC20S1	Visit to tea processing factory, Ooty		Exhibit the value added products of spirulina		Assignment on Plant products	To study the importance of plant resources.
19	Major Core IV - Plant Ecology and Phytogeography	BC2041	Field Visit to pond ecosystem				Power point presentation on hydrophytes	To learn the basic knowledge soil, water, vegetation and ecological groups.
20	Major Elective - II (a) Biological Resources	BC2042	Mushroom cultivation		Seminar on production of useful algal products		Assignment on Plant resources from plants	To understand the cultivation and production of biofertilizers, microbial fertilizers, biofertilizers and
21	Elective - II (b) Food Science	BC2043						To learn about the importance, constituents and health practices of food
22	Elective – II (c) Biodiversity and Human Welfare	BC2044						To learn about the inportance of biodiversity and aware to conserve the biodiversity.

23	Allied II - Theory : Plant Diversity - II (Gymnosperms, Angiosperms and Plant Phsiology)	BA2041	Flash board preparation on Plant Anatomy		Chart Preparation of Medicinal plants	To understand the structure and functiond of basic organelles of plant cells and internal structure of plant parts.
24	Major Practical Paper - II Archegoniate & Plant Ecology and Phytogeography	BC20P2			Anatomical study of xerophytes using sectioning	To learn the sectioning for microscopic observation.
25	Allied II - Practical : Plant Diversity I & II and Plant Physiology	BA20P2	Identify the cell organelles through microscope		Demonstration on Physiology experimental setup	To learn about physiology experimental set up.
26	Self Learning Course : Algal Biotechnology	BC20S2	Algae visit to Kovalam seashore	Book review on Algal Biotechnology	Culture media preparation for algae	To learn about the importance of algal diversity and aware to conserve the
27	Major Core V - Taxonomy of Angiosperms and Economic Botany	BC2051	Taxonomy field visit to Mukkadal dam		Herbarium Preparation	To acquire knowledge on the botanical vocabulary and taxonomical terminology to identify plants.
28	Major Core VI - Biochemistry and Biophysics	BC2052	Model making on Lipids and Cholesterol		Dispay of models on Metabolic pathways	To learn the emerging field of biophysics and principles of bioenergetics.
29	Major Core VII - Microbiology and Plant Pathology	BC2053	Visit to dairy industry, Aavin Milk Processing Unit	Assignment on Plant diseases	Preparation of diary products	To provide the students with the comprehensive understanding and appreciation for the diversity and significance of microbes on planet
30	Major - Elective III - Research Project	BC20PR			Model making on types of research	To learn the steps to write a research project.
31	Major Core VIII - Genetics, Biostatistics and Bioinformatics	BC2061			Display of models - Transgenic plants	To generate biological interpretations and conclusions from data of scientific research.
32	Major Core IX - Biotechnology and Molecular Biology	BC2062	Group Discussion on Cutting and Joining of genes	Assignment on Patent and IPR	Visit to CMST lab, Rajakamangalam	To develop skills to become employable as professionals in Biotechnology Industries.
33	Major Core X - Plant Physiology and Metabolism	BC2063	Group Discussion on Absorption	Seminars by students on Guttation	Demo on simple experiments in physiology	To comprehend the fundamental concepts of plant physiology.
34	Major - Elective IV (a) Marine Botany	BC2064	Visit to marine habitat , Manakudy	Collection of specimens from marine habitat	Model making on marine ecosystem	To understand the diversity of marine organisms.

35	Major - Elective IV (b) Organic Farming	BC2065				To empower the employment opportunity of youth at village level in organic market as organic growers, stakeholders, and entrepreneurs.
36	Major- Elective IV (c) Ecotourism	BC2066				To highlight the need for sustainable tourism.
37	Major Practical III - Taxonomy and Economic Botany & Biochemistry and Biophysics	BC20P3			Taxonomy key and herbarium preparation	To understand and identify the locally available common plants and performing experiments in Biochemistry.
38	Major Practical IV - Genetics, Biostatistics and Bioinformatics & Biotechnology and Molecular Biology	BC20P4			Analysis of random sampling in botanical garden	To interpret experimental data using biostatistics.
39	Major Practical V - Microbiology and Plant Pathology & Plant Physiology and Metabolism	BC20P5			Preparation of different bacterial culture media	To demonstrate and interpret the results to microbiology and physiology experiments.
40	Skill Enhancement Course (SEC) - Global Environmental Issues	SEC203			Album preparation on Pollution	To acquire the knowledge, values, attitudes, commitment, and skills needed to protect and improve the environment.
41	Core Course I : Plant Diversity - I Algae, Fungi, Lichens & Bryophytes	BP231CC1	Algae Visit to Idinthakarai coast	Group Discussion on Lichens	Identify the primitive group of plants	To gain adequate knowledge on the comparative accounts of various algal.
42	Core Course II : Plant Diversity - II Pteridophyta, Gymnosperms and Palaeobotany	BP231CC2	Seminar on Pteridophytes	Grouping of plants in different families	Identification of fossils through microscope	To get a brief knowledge of plant breeding techniques.
43	Elective Course I : a) Microbiology, Immunology and Plant Pathology	BP231EC1	Microbiolgy lab visit to Inbiotics	Assignment on Sterilization	Demonstration on Motility test	To understand the microbial world.

44	Elective Course I : b) Conservation of natural resources and policies	BP231EC2						To understand the marine environs.
45	Elective Course I : c) Mushroom cultivation	BP231EC3						To understand basic concepts of organic farming.
46	Elective Course II : a) Ethanobotany, Naturopathy and Traditional Health care	BP231EC4		Nature Walk to Kallikesham			Formulation of herbal products	To understand the research and its methodologies.
47	Elective Course II : b) Algal Technology	BP231EC5						To understand the evolutionary tendency of Thallophytes.
48	Elective Course II : c) Herbal Technology	BP231EC6	\bigtriangledown					To understand the basic concepts of cell and cell functions.
49	Core Lab Course I: Laboratory Course - I : Covering Core Papers - I & II	BP231CP1		Identification of primitive group of plants	Prepartion of permanaent slide		Demo on fuungal culture	To have detailed study on primitive organisms.
50	Core Course III : Taxonomy of Angiosperms and Economic Botany	BP232CC1		Taxonomy field Visit, Chunkankadai Hills	Exhibition of economical important plant products	\bigtriangledown	Preparation of taxonomic keys	To explain the principles of taxonomy. summarize the taxonomic hierarchy. define binomial nomenclature.
51	Core Course IV: Plant Anatomy and Embryology of Angiosperms	BP232CC2		Permanent slide preparation	Microscopic observation of pollen		Group discussion on maceration of Wood anatomy	To understand the various concepts of plant development and reproduction.
52	Core Course V: Ecology, Phytogeography, Conservation Biology and Intellectual Property Rights	BP232CC3		Model making on different ecosystem	Nature walk on Kallikesam		Quadrat studies in the field	To analyze insight into the vegetation types, species interaction and their importance and the factors influencing the environmental conditions.
53	Core Lab Course II : Lab Course (for Core III, IV & V)	BP232CP1		Dissection of flowers	Quadrat analysis in botanical garden	_	Demonstration on Ovule types	To understand the recent advances in plant morphological and floral characteristics.
54	Elective Course III : a) Biostatistics	BP232EC1		Data collect in blossom nursery	Seminar on correlation		Group discussion on data analysis of flowering plants in	To develop their competence in hypothesis testing and interpretation.

55	Elective Course III: b) Intellectual Property Rights	BP232EC2				To understand the differences of Property and Assets and Various categories of Intellectual Creativity.
56	Elective Course III : c) Applied bioinformatics	BP232EC3				To apply and explain the application of bioinformatic tools.
57	Elective Course IV : a) Research methodology, computer applications & bioinformatics	BP232EC4	Review of literature in College Library	Seminar on fundamentals of networking	Demonstration on different instruments in the laboratory	To understand the concept of pairwise alignment of DNA sequences using algorithms.
58	Elective Course IV : b) Medicinal Botany	BP232EC5				To develop new strategies to enhance growth and quality check of medicinal herbs considering the practical issues
59	Elective Course IV : c) Phytochemistry	BP232EC6				To know the methods of screening of secondary metabolites for various
60	Skill Enhancement Course I : Nursery and Gardening	BP232SE1	Demonstration on air layering	Cultivation of organic vegetables	Demonstration on Nursery techniques	To develop social responsible citizens.
61	Core VII - Taxonomy of Angiosperms	PB2031	Plant Identification		Taxonomy fied visit, Herbarium	To get knowledge of modern trends in taxonomy of Angiosperms.
62	Core VIII – Genetics and Molecular Biology	PB2032	Demonstration on PCR		Lab visit to Inbiotics	To aquire knowledge in laboratory techniques.
63	Elective III – (a) Horticulture	PB2033				To study the horticultural techniques.
64	Elective III – (b) Forestry	PB2034	Seminar on Turpentine production		Assignment on techniques employed	To learn the forest management methods.
65	Research Project	PB20PR			Performing life science experiments	To practice research.
66	Self Learning Course - Biology for competitive exam – I	PB20S1	Prepartion of question bank		Book reference on Biological Sciences	To get exposure to write competitive exams.
67	Core IX - Plant Physiology	PB2041	Demonstration on transpiration	Seminar using charts on Respiration	Seminar using charts on Seed germination	To get knowledge about plant physiological aspects.
68	Core X – Plant Ecology and Phytogeography	PB2042	Model making on Ozone Depletion		ě – – – – – – – – – – – – – – – – – – –	To get idea about the enviroment.
69	Core XI – Biotechnology & Bioinformatics	PB2043			Model Preparation on In vitro techniques	To employ microbes in producing useful products.

70	Elective IV – (a) Phytochemistry and Pharmacognosy	PB2044				To understand the bioinformatiocs toolin the field og Biology.
71	Elective IV – (b) Entrepreneurial Botany	PB2045			Hands on training on Mushroom cultivation	To understand the cultivation techniques of mushroom.
72	Practical III - Taxonomy of Angiosperms & Genetics and Molecular Biology.	PB20P3	Field Visit to Mukkadai		Preparation of taxonomic keys	To learn about the taxonomical terminology, morphology, structure and functions of various parts of plants.
73	Practical IV - Plant Physiology, Plant Ecology & Phytogeography and Biotechnology & Bioinformatics	PB20P4	Hands on training on physiology setup		Simple experiment in physiology	To understand the methodology involved in environment and conservation biology.
74	Self Learning Course - Biology for competitive exam – II	PB20S2		Book review on Biological Sciences	Preparation og MCQ	To understand the basics of life values.
				2022-2023		
75	Major Core I - Algae, Fungi and Lichens	BC2011	Charts and Models on Algae	Algae used in biofuel production on Chart	Assignment on Usnea	To develop a deep comprehension of the diversity, biology, and ecological roles of major algae, fungi, and lichens for ecological and applied knowledge.
76	Allied I - Chemistry¬ of Life	BA2011	Chart preparation on Carbohydrates	Model making on opening and closing of stomata	Chart prepartion on Nucleus	To provide a foundational understanding of the fundamental chemical principles underlying
77	Non Major Elective NME I - Gardening and Floriculture (NMEC)	BNM201		Assignment on Carbohydrates	Chart prepartion on different types of lawn	To cultivate expertise in gardening and floriculture techniques for creating and managing aesthetically pleasing and sustainable green spaces.
78	Major Core II - Plant Anatomy and Developmental Botany	BC2021	Chart preparation on secondary thickening of stem	Assignment on secondary Sectioning of root	Assignment on Embryogenesis	To foster a comprehensive understanding of plant anatomy and developmental processes to elucidate plant growth and structure.

79	Practical I -Algae, Fungi ,Lichens and Plant Anatomy and Developmental Botany	BC20P1	Microscopical observation of plant diversity	Assignment on Economic importance of fungi		Permanent slide preparation of periderm	To develop hands-on expertise in observing and analyzing plant tissues and structures to comprehend their growth and development.
80	Allied I - Theory : - Taxonomy of Angiosperms and Herbal Technology	BA2021	Group Discussion on Cappariadaceae	Book Review on Taxonomy		Assignment on Lamiaceae	To cultivate expertise in angiosperm classification and herbal technology for informed plant identification and utilization.
81	Allied Practical I - Chemistry¬ of Life and Taxonomy of Angiosperms and Herbal Technology	BA20P1	Identification of plants with respect to its families			Chart preparartion on structure of Carbohydrates	To equip students with the expertise to classify angiosperms and apply herbal technology for diverse practical applications.
82	Non Major Elective NME II - Biofertilizers, Biofuels and Biopesticides (NMEC)	BNM202	Guest Lecture on "Future Line Biotechnology"	Endowment Lecture on "Biosensors"		Assignment on Biofertilizers	To equip the students with the knowledge and skills to harness biofertilizers, biofuels, and biopesticides for sustainable and eco- friendly agricultural and environmental
83	Major Core III - Archegoniate	BC2031	Seminar on Pinus			Chart Display on Marsilea	To acquire knowledge on the botanical vocabulary and taxonomical terminology to identify plants.
84	Major Elective -I (a) Herbal Botany	BC2032	Herbal Shikakkai powder preparation	Identification of ethnomedicinal plants		Local Field visit to medicinal plant	To develop skills to become employable as professionals in traditional medicinal
85	Major Elective - I (b) Nursery and Gardening	BC2033			\Box		To understand making and maintenance of gardening and lawn.
86	Major Elective - I (c) Agricultural Botany	BC2034					To understand agricultural practices, seed technology, cropping scheme and
87	Allied II - Theory : Plant Diversity - I (Algae, Fungi, Bryophyta and Pteridophyta)	BA2031	Live specimen display in Rutaceae			Seminar on Mehanism of photosynthesis	To learn the basic knowledge taxonomy and plat physiology.
88	Self Learning Course : Plant Resource Utilization	BC20S1	Preparation of MCQ	Self prepartory notes		Preparation of Question bank	To study the importance of plant resources.
89	Major Core IV - Plant Ecology and Phytogeography	BC2041	Field Visit to nearby Pond Ecosystem			Power point presentation on Hydrophytes	To learn the basic knowledge soil, water, vegetation and ecological groups.

90	Major Elective - II (a) Biological Resources	BC2042	Mushroom cultivation	Seminar on Spirulina cultivation	Assignment on Plant resources	To understand the cultivation and production of biofertilizers, microbial fertilizers, biofertilizers and
91	Elective - II (b) Food Science	BC2043				To learn about the importance, constituents and health practices of food
92	Elective – II (c) Biodiversity and Human Welfare	BC2044				To learn about the inportance of biodiversity and aware to conserve the biodiversity.
93	Allied II - Theory : Plant Diversity - II (Gymnosperms, Angiosperms and Plant Phsiology)	BA2041	Flash board preparation on Plant Anatomy		Assignment on Fossils	To understand the structure and functiond of basic organelles of plant cells and internal structure of plant parts.
94	Major Practical Paper - II Archegoniate & Plant Ecology and Phytogeography	BC20P2			Anatomical study of halophytes using sectioning	To learn the sectioning for microscopic observation.
95	Allied II - Practical : Plant Diversity I & II and Plant Physiology	BA20P2	Identify the cell organelles through microscope		Demonstration - Physiology experimental setup	To learn about physiology experimental set up.
96	Self Learning Course : Algal Biotechnology	BC20S2	Self preparatory notes	Preparation of question bank	Prepartion of mind map	To learn about the importance of algal diversity and aware to conserve the
97	Major Core V - Taxonomy of Angiosperms and Economic Botany	BC2051	Taxonomy field visit		Herbarium preparation	To acquire knowledge on the botanical vocabulary and taxonomical terminology to identify plants.
98	Major Core VI - Biochemistry and Biophysics	BC2052	Diapay of models on Metabolic cycles		Role play on Metabolic cycles	To learn the emerging field of biophysics and principles of bioenergetics.
99	Major Core VII - Microbiology and Plant Pathology	BC2053	Pure culture Techniques	Herbarium showing plant diseases	Identification of plant diseases	To provide the students with the comprehensive understanding and appreciation for the diversity and significance of microbes on planet
100	Major - Elective III - Research Project	BC20PR			Writing of research report	To practice research.
101	Major Core VIII - Genetics, Biostatistics and Bioinformatics	BC2061	Chart making on Mendel's law		Display of models on Transgenic plants	To generate biological interpretations and conclusions from data of scientific research.

102	Major Core IX - Biotechnology and Molecular Biology	BC2062	Demonstration on Molecular instruments	Visit to CMST lab, Rajakamangalam	Handling of electrophoretic apparatus	To develop skills to become employable as professionals in Biotechnology Industries.
103	Major Core X - Plant Physiology and Metabolism	BC2063	Seminar on Metobolic Pathway	Guttation	Demo on simple experiments in physiology	To comprehend the fundamental concepts of plant physiology.
104	Major - Elective IV (a) Marine Botany	BC2064	Visit to marine habitat, Manakudy	Collection of specimens from marine habitat	Model making on Marine ecosystem	To understand the diversity of marine organisms.
105	Major - Elective IV (b) Organic Farming	BC2065				To empower the employment opportunity of youth at village level in organic market as organic growers, stakeholders, and entrepreneurs.
106	Major- Elective IV (c) Ecotourism	BC2066				To highlight the need for sustainable tourism.
107	Major Practical III - Taxonomy and Economic Botany & Biochemistry and Biophysics	BC20P3			Taxonomy key and herbarium preparation	To understand and identify the locally available common plants and performing experiments in Biochemistry.
108	Major Practical IV - Genetics, Biostatistics and Bioinformatics & Biotechnology and Molecular Biology	BC20P4			Solving genetics problem	To interpret experimental data using biostatics.
109	Major Practical V - Microbiology and Plant Pathology & Plant Physiology and Metabolism	BC20P5			Identification of microorganisms	To demonstrate and interpret the results to microbiology and physiology experiments.
110	Skill Enhancement Course (SEC) - Global Environmental Issues	SEC203			Assignment on Plastic pollution	To acquire the knowledge, values, attitudes, commitment, and skills needed to protect and improve the environment.
111	Core I - Plant Diversity I – Algae, Fungi,Lichens and Bryophytes	PB2011	Algal herbarium preparation	Display of of different lichen species	Algal field trip to Vattakottai coast	To gain adequate knowledge on comparative account of various algal divisions.
112	Core II – Microbiology	PB2012	Identification of different MICROBES	Microbiolgy lab visit to CMST, Rajakamangalam	Demo on staining techniques	To understand the microbial world.

113	Core III – Plant Anatomy & Embryology	PB2013	Chart Presentation on Plant anatomy		Microscopical observation on xylem and phloem	To get brief knowledge on plant breeding tecniqus.
114	Elective I – (a) Marine Biology	PB2014	Model making on marine ecosystem	Group Discussion on Waves and Tides	Marine Coastal Visit to Vattakottai and	To understand the marine environs.
115	Elective I – (b) Organic Farming	PB2015				To understand basic cocepts of organic farming.
116	Core IV – Plant Diversity II - Pteridophyta, Gymnosperms and Palaeobotany	PB2021	Assignment on Marchantia and Pinus	Medicinal plant exhibition	Sectioning of pteridohytes and observation in microscope	To understand the evolutionary tendency of thallophytes.
117	Core V – Research Methodology	PB2022	Assignment on Probability		Writing of research article	To understand the resaerch and its methodolies.
118	Core VI – Cell Biology and Biomolecules	PB2023	Commemorative Day on Hugo De Viries		Chart Preparation on Mitochondria	To understand the basic concepts of cell and cell functions.
119	Elective II – (a) Herbalism	PB2024	Hands on Training on Floral Arts Training for village Community		Exhibition on herbal products	To provide basic knowledge about herbals.
120	Elective II – (b) Evolutionary Biology	PB2025				To understand the process of evolution.
121	Practical I - Plant Diversity I – Algae, Fungi, Lichens and Bryophytes, Microbiology and Plant Anatomy &Embryology	PB20P1	Microscopic observation of algae and fungi		Algal field trip to Vattakottai	To identify microbes in laboratory.
122	Practical II - Plant Diversity II- Pteridophyta, Gymnosperms and Palaeobotany, Research Methodology and Cell Biology and Biomolecules	PB20P2	Exhibition on medicinal plants	Debate on Merits and Demerits of Gymnosperms	Exhibition on medicinal plants	To differentiate non flowering plants.
123	Core VII - Taxonomy of Angiosperms	PB2031	Plant Identification		Taxonomy key and herbarium preparation	To get knowledge of modern trends in taxonomy of Angiosperms.

124	Core VIII – Genetics and Molecular Biology	PB2032		Chart and Model preparation on Chloroplast and		Model making on Gene transfer techniques	To acquire knowledge in laboratory techniques.
125	Elective III – (a) Horticulture	PB2033					To study the horticultural techniques.
126	Elective III – (b) Forestry	PB2034		Interactive PPT on forest organisation		Seminar on forest products	To learn about the forest management methods.
127	Research Project	PB20PR				Thesis writing	To practice research.
128	Self Learning Course - Biology for competitive exam – I	PB20S1				Prepartion of short summary notes	To get awareness about social issues.
129	Core IX - Plant Physiology	PB2041		Demonstration on simple experiments of	Seminar using charts on Respiration	Demonstration on simple experiments of	To have a broad knowledge about plant physiology.
130	Core X – Plant Ecology and Phytogeography	PB2042		Ozone Day Celebration		Demonstration on Quadrat analysis	To get idea about the enviroment.
131	Core XI – Biotechnology & Bioinformatics	PB2043		Demonstration on tissue culture techniques		Prepartion of wine	To employ microbes in producing useful products.
132	Elective IV – (a) Phytochemistry and Pharmacognosy	PB2044					To understand the bioinformatiocs tools in the field og Biology.
133	Elective IV – (b) Entrepreneurial Botany	PB2045		Preparation on Pnahakavvya	Exhibition on spirulina products		To understand the cultivation techniques of mushroom.
134	Practical III - Taxonomy of Angiosperms & Genetics and Molecular Biology.	PB20P3		Field Visit to Chunkankadai Hills		Preparation of taxonomic keys	To learn about the taxonomical terminology, morphology, structure and functions of various parts of plants.
135	Practical IV - Plant Physiology, Plant Ecology & Phytogeography and Biotechnology & Bioinformatics	PB20P4	V	Demonstration on simple experiments of physiology		Field visit to Manakudy mangroves	To understand the methodology involved in environment and conservation biology.
136	Self Learning Course - Biology for competitive exam – II	PB20S2			Book reference on Biological Sciences	Prepartion of keynotes	To study basic life values.
					2021-2022		

137	Major Core I - Algae, Fungi and Lichens	BC2011	Algae visit to Vattakottai	Chart preparation on algae used in biofuel production	Assignment on Usnea	To develop a deep comprehension of the diversity, biology, and ecological roles of major algae, fungi, and lichens for ecological and applied knowledge.
138	Allied I - Chemistry¬ of Life	BA2011	Chart presentation on Mitochondria and Chloroplast	Chart presentation on Opening and closing of stomata	Chart preparation on Nucleus	To provide a foundational understanding of the fundamental chemical principles underlying
139	Non Major Elective NME I - Gardening and Floriculture (NMEC)	BNM201		Hands on Training on Roof Top Garden	Chart presenation on different types of lawn	To cultivate expertise in gardening and floriculture techniques for creating and managing aesthetically pleasing and sustainable green spaces.
140	Major Core II - Plant Anatomy and Developmental Botany	BC2021	Assignment on Marchantia and Pinus	Chart presentation on Secondary growth of root	Assignment on Lyginopteris	To foster a comprehensive understanding of plant anatomy and developmental processes to elucidate plant growth and structure.
141	Practical I -Algae, Fungi ,Lichens and Plant Anatomy and Developmental Botany	BC20P1	Microscopical observation of algae, fungi and lichens	Book review on Lichens	Microscopic observation of algae and fungi	To develop hands-on expertise in observing and analyzing plant tissues and structures to comprehend their growth and development.
142	Allied I - Theory : - Taxonomy of Angiosperms and Herbal Technology	BA2021	Group Discussion on Cappariadaceae	Book Review on A text book on Taxonomy	Herbarium preparation	To cultivate expertise in angiosperm classification and herbal technology for informed plant identification and utilization.
143	Allied Practical I - Chemistry¬ of Life and Taxonomy of Angiosperms and Herbal Technology	BA20P1	Exhibition on Locally available Medicinal Plants		Identification of plants with respect to its families	To equip students with the expertise to classify angiosperms and apply herbal technology for diverse practical applications.
144	Non Major Elective NME II - Biofertilizers, Biofuels and Biopesticides (NMEC)	BNM202	Guest Lecture on "Future Line Biotechnology"	Endowment Lecture on "Biosensors"	Group discussion on Biofertilizers	To equip students with the knowledge and skills to harness biofertilizers, biofuels, and biopesticides for sustainable and eco-friendly agricultural and environmental practices.
	Major Core III - Archegoniate	BC2031	Seminar on Pinus		Chart Display on Marsilea	To acquire knowledge on the botanical vocabulary and taxonomical terminology to identify plants.
146	Major Elective -I (a) Herbal Botany	BC2032	Preparation of herbal products	Identification of ethnomedicinal plants	Local field visit to medicinal plants	To develop skills to become employable as professionals in traditional medicinal

147	Major Elective - I (b) Nursery and Gardening	BC2033				To understand making and maintenance of gardening and lawn.
148	Major Elective - I (c) Agricultural Botany	BC2034				To understand agricultural practices, seed technology; cropping scheme and
149	Allied II - Theory : Plant Diversity - I (Algae, Fungi, Bryophyta and Pteridophyta)	BA2031	Live specimen display on Rutaceae		Seminar on mehanism of photosynthesis	To learn the basic knowledge taxonomy and plat physiology.
150	Self Learning Course : Plant Resource Utilization	BC20S1	Prepartion of keynotes	Preparation of question bank	Seminar on plant resources	To study the importance of plant resources.
151	Major Core IV - Plant Ecology and Phytogeography	BC2041	Field Visit to nearby Pond Ecosystem		Power point presentation on Hydrophytes	To learn the basic knowledge soil, water, vegetation and ecological groups.
152	Major Elective - II (a) Biological Resources	BC2042	Mushroom cultivation	Seminars - Biological resources	Model making on Plant resources	To understand the cultivation and production of biofertilizers, microbial fertilizers, biofertilizers and
153	Elective - II (b) Food Science	BC2043				To learn about the importance, constituents and health practices of food
154	Elective – II (c) Biodiversity and Human Welfare	BC2044				To learn about the inportance of biodiversity and aware to conserve the biodiversity.
155	Allied II - Theory : Plant Diversity - II (Gymnosperms, Angiosperms and Plant Phsiology)	BA2041	Flash board preparartion on Anamolous secondary growth of stem		Assignment on Photophosphorylation	To understand the structure and functiond of basic organelles of plant cells and internal structure of plant parts.
156	Major Practical Paper - II Archegoniate & Plant Ecology and Phytogeography	BC20P2			Anatomical study using sectioning	To learn the sectioning for microscopic observation.
157	Allied II - Practical : Plant Diversity I & II and Plant Physiology	BA20P2	Identification of the cell organelles through microscope		Physiology experimental setup	To learn about physiology experimental set up.
158	Self Learning Course :	BC20S2	Preparation of question	Preparation of algal	Seminar on Algal	To learn about the importance of algal
159	Algal Biotechnology Major Core V -	BC1751	bank Field Visit to	 products	diversity Herbarium	diversity and aware to conserve the To acquire knowledge on the botanical
139	Taxonomy and Economic Botany	BC1751	Kalikesam Hills		preparation	vocabulary and taxonomical terminology to identify plants.

160	Major Core VI - Biochemistry and Biophysics	BC1752	Seminar on Glycolysis			Group discussion on Fluorescence and Phosphorescence	To learn the emerging field of biochemistry, biophysics and principles of bioenergetics.
161	Major Core VII - Microbiology and Plant Pathology	BC1753	Milk processing unit visit to Aavin, Nagercoil	Assignment on Pasteurization		Hands on training on Biochemical tests to detect bacteria	To provide the students with the comprehensive understanding in microbiology and plant pathology.
162	Major - Elective III (a) Horticulture and Plant Breeding	BC1754	Nursery visit to Cheruvarukonam nursery	Hands on training on Nursery Techniques		Demonstration on Horticulture techniques	To perform horticultural practices.
163	Major - Elective III (b) Forestry	BC1755					To have broad knowledge about the forest and forest products.
164	Major - Elective III (c) Biological Techniques	BC1756			\bigtriangledown		To study the principle, working mechanism and uses of instruments used in biology.
165	Major Practical V - Taxonomy and Economic Botany & Biochemistry and Biophysics	BC17P5		Herbarium and Key preparation		Exhibiting different plant families	To identify the plant specimens.
166	Skill Based Course (*SBC) – Floriculture	BSK175	Hands on training on Cutting and layering	Demonstration on grafting techniques		Hands on training on Bonsai	To develop flower garden around the home and office to reduce of stress related depression of the livelihood.
167	Major Core VIII - Genetics, Biostatistics and Bioinformatics	BC1761	Assignment on Monohybrid and Dihybrid cross			Problem solving in genetics	To generate logical interpretations and conclusions from graphs, models, and data of scientific research.
168	Major Core IX - Biotechnology and Molecular biology	BC1762	Hands on training on tissue culture techniques	Lab Visit to CMST, Rajakamangalam		Demonstration on Molecular Biology instrumentation	To evaluate and use biological information effectively, ethically, and legally.
169	Major Core X - Plant Physiology and Metabolism	BC1763		Hydroponics training		Demostration on physiology setup	To integrate and interconnect plant physiological knowledge in agriculture, forestry, environmental science and
170	Major - Elective III (a) - Marine Botany	BC1764	Assignment on Marine products	Group Discussion on Mangroves		Debate on Pros and cons of corals	To recognize the marine pollution and conservation methods.
171	Major - Elective III (b) - Organic Farming	BC1765					To understand the need and generating knowledge and skill on various organic farming practices.
172	Major - Elective III (c) - Ecotourism	BC1766					To highlight the need for sustainable tourism.

173	Major Practical VI -	BC17P6		e e			\bigtriangledown	Problem solving in	To demonstarate experiments and
	Genetics, Biostatistics			culture techniques				genetics	interpret experimental data using
	and Bioinformatics &								biostatistics.
	Biotechnology and								
	Molecular Biology								
174	Major Practical VII -	BC17P7					\bigtriangledown	Culture techniques	To demonstate and interpret the results
	Microbiology and							aand biochemical	of physiology and microbiology
	Plant Pathology & Plant							tests to detect bacteria	experriments.
	Physiology and								
	Metabolism								
175	Core I - Plant Diversity	PB2011	\Box	Algal field trip to	\square	Identification of algal	\square	Preparation of algal	To gain adequate knowledge on
	I – Algae,			Kovalam seashore		species		herbarium	comparative account of various algal
	Fungi,Lichens and								divisions.
	Bryophytes								
176	Core II – Microbiology	PB2012	\Box	Seminar on	\Box	Research lab visit to	\Box	Group discussion on	To understand the microbial world.
				Sterilization techniques		CMST, Rajakamangalam		Bacteriophages	
177	Core III – Plant	PB2013	\Box	Microscopical			\square	Prepartion of	To get brief knowledge on plant
	Anatomy &			observation of xylem				permanent slide on	breeding techniques.
	Embryology			and phloem				ebroyology	
178	Elective I – (a) Marine	PB2014		Assignment on	\square	Visit to marine coastal	\square	Chart preparation on	To understand the marine environment.
	Biology			seagrasses		area, Kanyakumari		different seaweeds	
179	Elective I – (b)	PB2015					\square		To understand basic concepts of
	Organic Farming								organic farming.
180	Core IV – Plant	PB2021				Medicinal plant exhibition	\square	Assignment on Pinus	To understand the evolutionary
	Diversity II -			and Pinus					tendency of Thallophytes.
	Pteridophyta,								
	Gymnosperms and								
	Palaeobotany								
181	Core V – Research	PB2022		Writing of research	\square		\Box	Steps to write articles	To understand the resaerch and its
	Methodology			article				in journals	methodologies.
182	Core VI – Cell Biology	PB2023		U	\square	Role play on	\square	Chart Preparation on	To understand the basic concepts of cell
	and Biomolecules			organelles		polysaccharides		Chromosomes	and cell functions.
183	Elective II – (a)	PB2024	\square	Chart preparation on			\square	Exhibition on herbal	To study of basic knowledge about
	Herbalism			Medically important				products	herbals.
184	Elective II – (b)	PB2025					\square		To understand the process of evolution.
	Evolutionary Biology								

185	Practical I - Plant Diversity I – Algae, Fungi, Lichens and Bryophytes, Microbiology and Plant Anatomy &Embryology	PB20P1	Semianr on Different types of algae			Microscopical observation of fungi	To identify micronbes.
186	Practical II - Plant Diversity II- Pteridophyta, Gymnosperms and Palaeobotany, Research Methodology and Cell Biology and Biomolecules	PB20P2	Exhibition of medicinal plants	Sectioning and observation of plant cells		Microscopical observation of pteridophytes and gymnosperms	To differentiate non flowering plants.
187	Core VII - Taxonomy of Angiosperms	PB2031	Seminar on Vitaceae		\bigtriangledown	Taxonomy field visit, Thambimalai hills	To get knowledge of modern trends in taxonomy of Angiosperms.
188	Core VIII – Genetics and Molecular Biology	PB2032	Interactive PPT on Genes		\bigtriangledown	Model making on Monoclonal antibody production in plants	To acquire Knowledge in laboratory techniques.
189	Elective III – (a) Horticulture	PB2033					To study the horticultural techniques.
190	Elective III – (b) Forestry	PB2034	Seminar on Forest Act			Chart presentation on forest products	To learn the forest management methods.
191	Research Project	PB20PR				Outline for the preparation of	To service the society.
192	Self Learning Course - Biology for competitive exam – I	PB20S1	Preparation of question bank			Preparation of keynotes	To get exposure to write competitive exams.
193	Core IX - Plant Physiology	PB2041	Seminar using charts on Transpiration	Assignment on plant growth and development		Model making on Calvin cycle	To knowledge about plant physiological aspects.
194	Core X – Plant Ecology and Phytogeography	PB2042	Chart preparation on Halophytes and xerophytes			Quadrat analysis in botanical garden	To get idea about the environment.
195	Core XI – Biotechnology & Bioinformatics	PB2043				Model Preparation on Plant tissue culture	To employ microbes in producing useful products.
196	Elective IV – (a) Phytochemistry and Pharmacognosy	PB2044					To understand the bioinformatics tool in the field of biology.

197	Elective IV – (b) Entrepreneurial Botany	PB2045			Preparation of mushroom receipes	Exhhition on spirulina products	To understand the cultivation techniques of mushroom.
198	Practical III - Taxonomy of Angiosperms & Genetics and Molecular Biology.	PB20P3	\bigtriangledown	Preparation of Taxonomic keys		Herbarium preparation	To learn about the taxonomical terminology, morphology, structure and functions of various parts of plants.
199	Practical IV - Plant Physiology, Plant Ecology & Phytogeography and Biotechnology & Bioinformatics	PB20P4		Simple experiment in physiology		Calulation of Shannon- wienner's index	To understand the methodology involved in environment and conservation biology.
200	Self Learning Course - Biology for competitive exam – II	PB20S2				Prepartion of MCQ	To study basic life values.
					2020-2021		
201	Major Core I - Algae, Fungi and Lichens	BC2011		Chart Preparation on Algae and Fungi	Model making on Algae used in biofuel production	Assignment on Usnea	To develop a deep comprehension of the diversity, biology, and ecological roles of major algae, fungi, and lichens for ecological and applied knowledge.
202	Allied I - Chemistry¬ of Life	BA2011		Chart Preparation on Mitochondria and Chloroplast	Working model on Opening and closing of stomata	Assignment on Atoms and molecules	To provide a foundational understanding of the fundamental chemical principles underlying
203	Non Major Elective NME I - Gardening and Floriculture (NMEC)	BNM201			Assignment on Gardening tools	Hands on training on flower arrangement	To cultivate expertise in gardening and floriculture techniques for creating and managing aesthetically pleasing and sustainable green spaces.
204	Major Core II - Plant Anatomy and Developmental Botany	BC2021		Demonstration on Sectioning of anamolous stem	Assignment on Sectioning techniques	Observation of wood anatomy	To foster a comprehensive understanding of plant anatomy and developmental processes to elucidate plant growth and structure.
205	Practical I -Algae, Fungi ,Lichens and Plant Anatomy and Developmental Botany	BC20P1		Microscopical observation of algae	Identification of fungi by LPCB method	Collection of lichens	To develop hands-on expertise in observing and analyzing plant tissues and structures to comprehend their growth and development.

206	Allied I - Theory : - Taxonomy of Angiosperms and Herbal Technology	BA2021	Group Discussion on Cappariadaceae	Tabulation of families with examples		with their respective families in collge campus	To cultivate expertise in angiosperm classification and herbal technology for informed plant identification and utilization.
207	Allied Practical I - Chemistry¬ of Life and Taxonomy of Angiosperms and Herbal Technology	BA20P1	Exhibition on Locally available Medicinal Plants			Album preparation on Herbal products	To equip students with the expertise to classify angiosperms and apply herbal technology for diverse practical applications.
208	Non Major Elective NME II - Biofertilizers, Biofuels and Biopesticides (NMEC)	BNM202	Guest Lecture on Future Line Biotechnology	Endowment Lecture on "Biosensors"		Album preparation on Biofuels	To equip students with the knowledge and skills to harness biofertilizers, biofuels, and biopesticides for sustainable and eco-friendly agricultural and environmental practices.
209	Major Core III - Archegoniate	BC1731	Display of models on Archegoniate		_	Permanent Slide preparation	To acquire knowledge on the botanical vocabulary and taxonomical terminology to identify plants.
210	Major Elective – I (a) Herbal Botany	BC1732	Preparation of herbal products using locally available herbs	Visit to vaithiyars shop in local area		Field visit to medicinal plants cultivation areas	To develop skills to become employable as professionals in traditional medicinal system.
211	Major Elective – I (b) Nursery and Gardening	BC1733			\bigtriangledown		To understand making and maintenance of gardening and lawn.
212	Major Elective – I (c) Agricultural Botany	BC1734					To understand agricultural practices, seed technology; cropping scheme and
213	Major Practical Paper - III Archegoniate	BC17P3				Anatomical study using sectioning	To learn the sectioning for microscopic observation.
214	Allied II - Theory : Taxonomy of Angiosperms and Plant Physiology	BA1731	Demonstration with live specimen			Assignment on Breaking of seed dormancy	To learn the basic knowledge on taxonomy and plant physiology.
215	Self Learning Course - Plant Resource Utilization	BC17S1	Preparation of MCQ	Seminar on Plant resources		Prepartion of Keynotes	To study the importance of plant resources.
216	Major Core IV – Plant Ecology and Phytogeography	BC1741	Field Visit to Pond Ecosystem	Permenant slide preparation		Demonstration on Quadrat analysis	To learn the basic knowledge soil, water, vegetation and ecological groups.
217	Major - Elective II (a) Biological Resources	BC1742	Preparation of Vermicompost	Mushroom cultivation		Demonstration of SCP products	To understand the cultivation and production of biofertilizers, microbial fertilizers, biofertilizers and biopesticides.

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218	Major - Elective II (b)	BC1743					\square		To learn about the importance,
	Food Science								constituents and health practices of food
219	Major - Elective II (c)	BC1744	\square				\square		To learn about the inportance of
	Biodiversity and								biodiversity and aware to conserve the
	Human Welfare								biodiversity.
220	Major Practical IV -	BC17P4		Powerpoint				Display of Plant cell	To understand the structure and
	Plant Ecology and			presentation on				structure model	functiond of basic organelles of plant
	Phytogeography			Xerophytes					cells and internal structure of plant
221	Allied II – Theory :	BA1741					\square	Demonstration on soil	To learn the sectioning for microscopic
	Cell Biology and Plant							permeability and Soil	observation and studying vegetation.
	Anatomy							pH	
222	Allied II – Practical:	BA17P2	\Box	Identify the cell			\Box	Physiology	To learn about physiology experimental
	Taxonomy, Anatomy,			organelles through				experimental setup	set up.
	Plant Physiology, Cell			microscope					
	Biology and Plant								
	Anatomy								
223	Self Learning Course -	BC17S2	\Box	Preparation of question	\square	Preparation of MCQ	\square	Preparation of	To learn about the importance of algal
	Algal Biotechnology			bank				keynotes	diversity and aware to conserve the
224	Major Core V -	BC1751	\Box	Field Visit to			\square	Herbarium and Key	To acquire knowledge on the botanical
	Taxonomy and			Chunkankadai hills				preparation	vocabulary and taxonomical
	Economic Botany								terminology to identify plants.
225	Major Core VI -	BC1752	\Box	Assignment on			\square	Group discussion on	To learn the emerging field of
	Biochemistry and			Metabolism of lipids				Polysaccharides	biochemistry, biophysics and principles
	Biophysics								of bioenergetics.
226	Major Core VII -	BC1753	\square	Preparation of	\bigtriangledown	Group discussion on	\bigtriangledown	Demonstation of	To provide the students with the
	Microbiology and			herbarium with		Viruses		biochemical tests of	comprehensive understanding in
	Plant Pathology			diseased plants				bacteria	microbiology and plant pathology.
227	Major - Elective III (a)	BC1754	\square	Nursery visit to	\square	Demonstration on Nursery	\square	Chart preparation on	To perform horticultural practices.
	Horticulture and Plant			Cheruvarukonam		Techniques		Lawn making	
	Breeding								
228	Major - Elective III (b)	BC1755			\square		\square		To learn broad knowledge about the
	Forestry		_						forest and forest products.
229	Major - Elective III (c)	BC1756	\square		\square		\square		To study principle, working mechanism
	Biological Techniques		_						and uses of instruments used in biology.
230	Major Practical V -	BC17P5			\square	Preparation of herbarium	\square	Identification of	To identify the plant specimens.
	Taxonomy and							plants with respect to	
	Economic Botany &							its families	
	Biochemistry and								
	Biophysics		1	1	1	1	1		
229	Major - Elective III (b) Forestry Major - Elective III (c) Biological Techniques Major Practical V - Taxonomy and Economic Botany & Biochemistry and	BC1756				Preparation of herbarium		plants with respect to	forest and forest products. To study principle, working mechanism and uses of instruments used in biology

231	Skill Based Course (*SBC) – Floriculture	BSK175	Hands on training on Flower arrangement		Demonstration on Nursery Tecniques	Hands on training on Bonsai	To develop flower garden around the home and office to reduce of stress related depression of the livelihood.
232	Major Core VIII - Genetics, Biostatistics and Bioinformatics	BC1761	Assignment on Genes			Problem solving in genetics	To generate logical interpretations and conclusions from graphs, models, and data of scientific research.
233	Major Core IX - Biotechnology and Molecular biology	BC1762	Hands on training on tissue culture techniques		Seminar on Restriction enzymes	Assignment on DNA structure	To evaluate and use biological information effectively, ethically, and legally.
234	Major Core X - Plant Physiology and Metabolism	BC1763		\bigtriangledown	Demonstartion on Respirometer	Hydroponics training	To integrate and interconnect plant physiological knowledge in agriculture, forestry, environmental science and
235	Major - Elective III (a) - Marine Botany	BC1764	Power point presentation on Marine	\bigtriangledown	Assignment on Seaweeds and seagrasses	Group discussion on Red algae and green	To recognize the marine pollution and conservation methods.
236	Major - Elective III (b) - Organic Farming	BC1765					To understand the need and generating knowledge and skill on various organic farming practices.
237	Major - Elective III (c) - Ecotourism	BC1766					To highlight the need for sustainable tourism.
238	Major Practical VI - Genetics, Biostatistics and Bioinformatics & Biotechnology and Molecular Biology	BC17P6	Training on tissue culture techniques			Data analysis with department library books	To demonstrate experiments and interpret experimental data using biostatistics.
239	Major Practical VII - Microbiology and Plant Pathology &Plant Physiology and Metabolism	BC17P7			Identification of bacteria	Identification of diseased plants	To demonstrate and interpret the results of physiology and microbiology experriments.
240	Core I - Plant Diversity I – Algae, Fungi,Lichens and Bryophytes	PB2011	Seminar on Algae and Fungi		Lichen herbarium preparartion	Algal visit to Kovalam	To gain adequate knowledge on comparative account of various algal divisions.
241	Core II – Microbiology	PB2012	Hands on training on Pure culture	\bigtriangledown		Research lab visit, CMST,	To understand the microbial world.
242	Core III – Plant Anatomy & Embryology	PB2013	Microscopical observation on xylem and phloem		Permanent slide preparation ovules	Chart presenation on types of embryo	To get brief knowledge on plant breeding tecniqus.
243	Elective I – (a) Marine Biology	PB2014	Assignment on Coral reefs	\bigtriangledown	Visit to marine ecosystem, Kanyakumari	Album preparation on Coral reef formation	To understand the marine environs.

244	Elective I – (b) Organic Farming	PB2015				To understand basic cocepts of organic farming.
245	Core IV – Plant Diversity II - Pteridophyta, Gymnosperms and Palaeobotany	PB2021	Medicinal plant exhibition	Assignment on Pteridophyta, Gymnosperms and Palaeobotany	Seminar on Paleobotany	To understand the evolutionary tendency of Thallophytes.
246	Core V – Research Methodology	PB2022	Debate on Problem solving in research	Writing of research article	Writing of thesis	To understand the resaerch and its methodolies.
247	Core VI – Cell Biology and Biomolecules	PB2023	Chart Preparation on Cells	Working model on cell organelles	Identificatioon and observation of giant chromosomes	To understand the basic concepts of cell and cell functions.
248	Elective II – (a) Herbalism	PB2024	Visit to Herbal shop		Exhibition on herbal products	To have basic knowledge about herbals.
249	Elective II – (b) Evolutionary Biology	PB2025				To understand the process of evolution.
250	Practical I - Plant Diversity I – Algae, Fungi, Lichens and Bryophytes, Microbiology and Plant Anatomy &Embryology	PB20P1	Microscopic observation of algae and fungi		Identification of microbes from soil	To identify microbes.
251	Practical II - Plant Diversity II- Pteridophyta, Gymnosperms and Palaeobotany, Research Methodology and Cell Biology and Biomolecules	PB20P2	Seminar on Paleobotany	Exhibition on different medicinal plants	Sectioning of plants and microscopical observation	To differentiate non flowering plants.
252	Core VII - Taxonomy of Angiosperms and Economic Botany	PB1731	Taxonomy field visit, Kalikesam	Herbarium preparation	Taxonomy key preparation	To get knowledge of modern trends in taxonomy of Angiosperms.
253	Core VIII - Genetics and Molecular Biology	PB1732	Model making on Genes	Assignment on Plasmids and cosmids	Debate on Cloning	To acquire knowledge in laboratory techniques.
254	Elective III -(a) Forestry	PB1733	Chart making on Forest products	Assignment on dye yielding	Album prepartion on drugsyielding plants	To learn the forest management methods.

255	Elective III -(b) Horticulture and Plant	PB1733				To study the horticultural techniques.
250	Breeding (Elective III) Research Project	PB17PR			T 1:-	To be each do a consistence of the off
256 257	Practical III -	PB17PK PB17P3	Herbarium preparation		Thesis writing Problem solving	To knowledge various aspects of To learn about the taxonomical
231	Taxonomy of Angiosperms and Economic Botany, Genetics and Molecular Biology	FD1/F3	Herbarium preparation		Problem solving	terminology, morphology, structure and functions of various parts of plants.
258	Self Learning Course - Biology for competitive exam – I	PB17S1	Preparation of question bank		Preparation of keynotes	To get exposure to write competitive exams.
259	Core IX - Plant Physiology and Metabolism	PB1741	physiology	Seminar using charts on Polyamines	Seminar using charts on Nitrogen fixation	To have knowledge about plant physiological aspects.
260	Core X - Environment and Conservation Biology	PB1742	Assignment on Phytogeography	Visit to Manakudy mangroves	Quadrat analysis in herbal garden	To get idea about the environment.
261	Core XI - Applied Biotechnology	PB1743		Model Preparation on Enzyme production	Assignment on Vitamins	To produce value added products such as antibiotics.
262	Elective IV - (a) Industrial Microbiology	PB1744	Assignment on Alcohol production	Preparation of wine	Demo on Phytochemical tests	To employ microbes in producing useful products.
263	Elective IV - (b) Biostatistics and Bioinformatics	PB1745				To analyze the biological data.
264	Practical IV - Plant Physiology and Metabolism, Environment and Conservation Biology and Applied Biotechnology	PB17P4	Quadrat analysis in grassland ecosystem		Demonstration of physiology setup	To understand the methodology involved in environment and conservation biology.
265	Self Learning Course - Biology for competitive exam – II	PB17S2			Preparation of MCQ	To basic life values.
	· · · · ·		·	2019-2020		·

266	Major Core I – Algae, Fungi and Lichens	BC1711		Algal collection from Kanyakumari coast	Algal herbarium preparation	To know about the diversity of nature.
267	Allied I - Theory: Cell Biology and Plant Anatomy	BA1711	Model Preparation on Plant and animal cells	Assignment on Plant and animal cells	Chart making on Nucleus	To develop hands-on expertise in observing and analyzing plant tissues and structures to comprehend their
268	Major Practical I - Algae, Fungi and Lichen	BC17P1	Microscopical identification of algae and fungi		Algal herbarium preparation	To equip with the basics of cell and anatomy.
269	Non Major Elective Course (NMEC) – Food and Nutrition	BNM171	Chart Preparation on Pickle, Jam and Jelly preparation		Preparation of jam, jelly and pickles	To familiar with balanced diet.
270	Major Core II - Plant Anatomy and Embryology	BC1721	Permanent slide preparation on types of tissues		specimen	To understand plant anatomy and embryology to explore the structure, growth, and development of plants from
271	Major Practical II - Plant Anatomy and Embryology Plant Anatomy and Embryology	BC17P2	Demonstration on Permanent Slide and live specimens	Model making on types of ovules		To understand with hands-on experience and knowledge in studying the internal structure of plants and their embryonic development.
272	Allied I - Theory : Taxonomy of Angiosperms and Plant Physiology	BA1721	Visit to Ponmalai hillocks		Herbarium preparation	To understand the diversity and classification of flowering plants (Angiosperms) and their physiological processes for a comprehensive grasp of
273	Allied I - Practical - Cell Biology, Plant Anatomy, Taxonomy of Angiosperms and Plant Physiology Taxonomy of Angiosperms and Plant Physiology	BA17P1	Model Preparation on Plant and animal cells		Demo on Physiology set up	To develop hands-on skills in exploring cellular structures, plant tissue organization, and conducting experiments related to the taxonomy and physiological processes of flowering plants.
274	Non Major Elective Course (NMEC) – Eco - Friendly Technology	BNM172		Mushroom cultivation technology		To equip the students with knowledge and skills to develop and implement sustainable technologies that minimize environmental impact and promote a
275	Major Core III - Archegoniate	BC1731	Assignment on Archegoniate		Presentation with chart display on Rhynia	To acquire knowledge on the botanical vocabulary and taxonomical terminology to identify plants.
276	Major Practical Paper - III Archegoniate	BC17P3			Anatomical study using sectioning	To learn the sectioning for microscopic observation.

277	Major Elective – I (a) Herbal Botany	BC1732	Herbal oil Preparation	Presentation about Ethnomedicinal Plants in Kanyakumari District	Experimental approach in lab to identify secondary	To develop skills to become employable as professionals in traditional medicinal system.
278	Major Elective – I (b) Nursery and Gardening	BC1733				To understand the making and maintenance of gardening and lawn.
279	Major Elective – I (c) Agricultural Botany	BC1734				To understand agricultural practices, seed technology; cropping scheme and
280	Taxonomy of Angiosperms and Plant Physiology	BA1731	Power point Presentation on Taxonomy key		Assignment on Causes of seed dormancy	To learn the basic knowledge taxonomy and plat physiology.
281	Self Learning Course : Plant Resource Utilization	BC17S1	Preparation of MCQ	Visit to nearby Museum	Differentitate renewable and non renewable resource	To study the importance of plant resources.
282	Major Core IV – Plant Ecology and Phytogeography	BC1741	Model making on food chain	Visit to pond eco system	Quadrat Sampling in Holy Cross botanical garden	To understand the relationships between the different ecological groups.
283	Major - Elective II (a) Biological Resources	BC1742	Assignment on Biological resources	Hands on training - Preparation of biologically useful products	Assignment on biological resources	To realize the vast expansion of biomass systems, both for green energy and for other renewable resources.
284	Major - Elective II (b) Food Science	BC1743				To know about the balanced diet and its importance.
285	Major - Elective II (c) Biodiversity and Human Welfare	BC1744				To assess the value of biodiversity through valid methodologies.
286	Major Practical IV - Plant Ecology and Phytogeography	BC17P4	Quadrat Sampling in Holy Cross botanical garden		Visit to remote sensing area	To record the locally available Hydrophytes, Xerophytes and Halophytes.
287	Allied II – Theory : Cell Biology and Plant Anatomy	BA1741	Chart Preparation on Plant and animal cells		Assignments on Pteridophytes	To compare the structure and functions of living and non - living inclusions in plants, primary and secondary structure
288	Allied II – Practical: Taxonomy, Anatomy, Plant Physiology, Cell Biology and Plant Anatomy	BA17P2	Hands on training on Sectioning of anamalous stem		Sectioning and observation in microscope	To dissect the floral parts of the prescribed families and explain with appropriate diagrams.
289	Self Learning Course - Algal Biotechnology	BC17S2	Visit to Vattakottai seachore	Preparation on algal herbarium	Preparation of algal products	To learn about the importance of algal diversity and aware to conserve the

290	Major Core V - Taxonomy and Economic Botany	BC1751	Field Visit to Thambimalai hills		Seminar on Vitaceae	To acquire knowledge on the botanical vocabulary and taxonomical terminology to identify plants.
291	Major Core VI - Biochemistry and Biophysics	BC1752	Assignment on Thermodynamics		Assignment on Fats and oils	To learn the emerging field of biochemistry, biophysics and principles of bioenergetics.
292	Major Core VII - Microbiology and Plant Pathology	BC1753	Demonstration on Pure Culture techniques	Preparation of different culture media and identification of microbes	Demonstation of Microbiology tests to detect bacteria	To provide the students with the comprehensive understanding in microbiology and plant pathology.
293	Major - Elective III (a) Horticulture and Plant Breeding	BC1754	Nursery visit to Cheruvarukonam nursery	Demonstration on nursery Techniques	Seminar on Layering techniques	To perform horticultural practices.
294	Major - Elective III (b) Forestry	BC1755				To understand a broad knowledge about the forest and forest product.
295	Major - Elective III (c) Biological Techniques	BC1756				To study principle, working mechanism and uses of instruments used in biology.
296	Major Practical V - Taxonomy and Economic Botany & Biochemistry and Biophysics	BC17P5		Herbarium preparation	Exhibition on economically important products	To identify the plant specimens.
297	Skill Based Course (*SBC) – Floriculture	BSK175	Assignment on preservation of flowers	Demo on flower arrangement	Hands on training on Bonsai	To develop flower garden around the home and office to reduce of stress related depression of the livelihood.
298	Major Core VIII - Genetics, Biostatistics and Bioinformatics	BC1761	Seminar on Crossing over and linkage		Problem solving in biostatistics	To generate logical interpretations and conclusions from graphs, models, and data of scientific research.
299	Major Core IX - Biotechnology and Molecular biology	BC1762	Hands on training on tissue culture practices	Assignment on Cloning	Group discussion on Restriction digestion	To evaluate and use biological information effectively, ethically, and legally.
300	Major Core X - Plant Physiology and Metabolism	BC1763		Seminar on GMP pathway	Hydroponics training	To integrate and interconnect plant physiological knowledge in agriculture, forestry, environmental science and
301	Major - Elective III (a) - Marine Botany	BC1764	Chart preparation on marine ecosystem	Group Discussion onMangroves	Seminar on Seaweeds	
302	Major - Elective III (b) - Organic Farming	BC1765				To understand the need and generating knowledge and skill on various organic farming practices.

303	Major - Elective III (c) - Ecotourism	BC1766				To highlight the need for sustainable tourism.
304	Major Practical VI - Genetics, Biostatistics and Bioinformatics & Biotechnology and Molecular Biology	BC17P6	Training on tissue culture technique		Problem solving in biostatistics	To demonstrate experiments and interpret experimental data using biostatistics.
305	Major Practical VII - Microbiology and Plant Pathology &Plant Physiology and Metabolism	BC17P7		Identification of bacteria	Collection of diseased leaves	To demonstrate and interpret the results of physiology and microbiology experriments.
306	Core I - Plant Diversity I - Algae, Fungi, Lichens and Bryophytes	PB1711	Algal field trip to Vattakottai	Role play on Different group of algae	Algal herbarium preparation	To gain adequate knowledge on comparative account of various algal divisions.
307	Core II - Microbiology, Immunology and Plant Pathology	PB1712	Seminar on Viruses	Debate on Microbes : Friend or Foe	Research lab visit, CMST, Rajakamangalam	To understand the microbial world.
308	Core III - Developmental Botany	PB1713	Assignment on Embryogenesis	Seminar on fertilization	Microscopical observation on xylem and phloem	To get brief knowledge on plant breeding tecniqus.
309	Elective I - (a) Marine Biology	PB1714	PPT presentation on Plate tectonics	Assignment on Earthquake and Tsunami	Visit to marine ecosystem,	To understand the marine environment.
310	Elective I - (b) Cell Biology	PB1714				To understand the basic concepts of organic farming.
311	Practical I - Plant Diversity I – Algae, Fungi and Bryophytes; Microbiology, Immunology and Plant Pathology; Developmental Botany	PB17P1	Microscopical observation of algae, fungi and lichens		Identification of fungi LPCB method	To understand the evolutionary tendency of Thallophytes.
312	Core IV - Plant Diversity II - Pteridophyta, Gymnosperms and Palaeobotany	PB1721	Field trip to Ponmudi	Assignment on Fossils	Specimen preservation	To know about the primitive group of plants.

313	Core V - Research	PB1722	Group discussion on	Writing a paper to journal	Model making on	To understand the research and its
	Methodology		Research proposal		types of research	methodologies.
314	Core VI - Biochemistry and Biophysics	PB1723	Assignment on Thermodynamics law	Seminar on Bioluminescence	Group discussion on Water soluble and fat soluble vitamins	To have basic knowledge about herbals.
315	Elective I - (a) Medicinal Botany and Pharmacognosy	PB1724	Assignment on Fossils	Assignment on Drugs from medicinal herbs	Assignment on Pharmacological importance of plants	To understand the process of evolution.
316	Elective I - (b) Medicinal Plants and Ethnobotany	PB1724				To identify microbes.
317	Practical II - Plant Diversity – II - Pteridophya, Gymnosperms and Paleobotany; Research Methodology and Biochemistry and Biophysics	PB17P2	Analyse the viscocity of different oils	Observation of permanent slides to identify Pteridophytes and Gymnosperms	Microscopical observation of fossil slides	To differentiate non flowering plants.
318	Core VII - Taxonomy of Angiosperms and Economic Botany	PB1731	Herbarium Preparation	Taxonomic Key Preparation	Taxonomy field visit, Chunkankadai hills	To get knowledge of modern trends in taxonomy of Angiosperms.
319	Core VIII – Genetics and Molecular Biology	PB1732	Model making on Genes	Album preparation on Cosmids	Model making onTransgenics	To acquire knowledge in laboratory techniques.
320	Elective III – (a) Forestry	PB1733	Chart making on Forest products	Group Discussion on Pharmaceutical products from forest	Local field visit to hilly areas of Kalikesam	To learn the forest management methods.
321	Elective III - (b) Horticulture and Plant Breeding	PB1733				To study the horticultural techniques.
322	Project	PB17PR			Thesis writing	To have broad knowledge in various aspects of botany.
323	Practical III - Taxonomy of Angiosperms and Economic Botany, Genetics and Molecular Biology.	PB17P3	Herbarium Preparation		Taxonomy key Preparation	To learn about the taxonomical terminology, morphology, structure and functions of various parts of plants.

324	Biology for	PB17S1		Preparation of question			\bigtriangledown	Library visit	To get exposure to write competitive
	competitive exam – I			bank					exams.
325	Core IX - Plant	PB1741	\bigtriangledown	Assignementt on	\square	Demonstration of Simple	\square	Seminar using charts	To have broad knowledge about plant
	Physiology and			Osmosis		experiments in Physiology		on Transpiration	physiology.
	Metabolism								
326	Core X – Environment	PB1742	\square	Quadrat Sampling in	\Box	Seminar on Hydrophytes	\square	Demonstration on	To get idea about the enviroment.
	and Conservation			Holy Cross botanical				Simple experiment in	
	Biology			garden				ecology	
327	Core XI – Applied	PB1743			\square	Hands on training on In	\square	Demonstration of	To produce value added products such
	Biotechnology					vitro propagation of plants		plant tissue culture	as antibiotics.
328	Elective IV – (a)	PB1744	\bigtriangledown	Model making on	\square	Preparation of Wine	\square	Demonstration on	To employ microbes in producing
	Industrial			alcohol production				Phytochemical tests	useful products.
	Microbiology								
329	Elective IV – (b)	PB1745	\Box				\square		To analyze the biological data.
	Biostatistics and								
	Bioinformatics								
330	Practical IV - Plant	PB17P4	\square	Hands on Training on	\square	Quadrat anaysis in field	\Box	Demonstration of	To understand the methodology
	Physiology and			biotechnology				simple experiments	involved in environment and
	Metabolism,			instruments					conservation biology.
	Environment and								
	Conservation Biology								
	and Applied								
	Biotechnology								
331	Biology for	PB17S2			\Box	Library visit	\Box	Preparation of	To have basic life values.
	competitive exam – II							question bank	