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DEGLOOR COLLEGE, DEGLOOR

Annual Teaching Plan

Department :- Botany **Class :- B.Sc. I Year**

Name of Teacher :- Dr. Lakde H. M. **Year :- 2015-16**

Semester :- I **Paper Name & NO. :- Paper-I: Diversity of Microbes**

Chapter No.	Topic - Title	Expected Lectures	Expected Duration	
			From	To
I	VIRUSES 1. General characters of viruses 2. Classification of viruses based on host. 3. Ultra structure of TMV 4. Symptoms of viral diseases of plants 5. Yellow vein mosaic of Bhendi 6. Bean mosaic 7. Transmission of viruses 8. Economic importance of viruses	10	10·7·15	31·07·15
II	BACTERIA 1. General characters of bacteria 2. Ultra structure of bacterial cell 3. Asexual reproduction (By binary fission and endospore formation) in bacteria 4. Sexual reproduction (By conjugation) in bacteria 5. Salient features of cyanobacteria 6. Systematic position, habitat, distribution, structure and reproduction in Nostoc 7. Role of bacteria and cyanobacteria in agriculture 8. Archaebacteria – Introduction and Forms	13	01·8·15	29·8·15
III	FUNGI 1. General characters of Fungi 2. Classification of Fungi (as per Alexopolous and Mims,1979) 3. Systematic position, occurrence, structure of mycelium, asexual reproduction, sexual reproduction and graphic life cycle of following fungal types i. Mastigomycotina – Albugo ii. Ascomycotina – Eurotium	10	03·09·15	24·09·15
IV	FUNGI AND LICHENS (13 periods) 1. Systematic position, occurrence, structure of mycelium, asexual reproduction, sexual reproduction and graphic life cycle of following fungal types iii. Basidiomycotina – Agaricus iv. Deuteromycotina – Cercospora (Tikka disease of groundnut) 2. Role of fungi in fermentation industries (Bakery and Brewery) 3. General characters of lichens 4. Types of lichens 5. Economic importance of lichens	12	25·09·15	22·10·15

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artment :- Botany

Class :- B.Sc. I Year

ne of Teacher :- Dr. Lakde H. M.

Year :- 2015-16

ester :- II Paper Name & NO. :- Paper-I: Diversity of Cryptogams

pter o.	Topic - Title	Expected Lectures	Expected Duration	
			From	To
I	ALGAE –I 1. General characters of algae 2. Classification of algae(As per F.E.Fritsch,1935) 3. Systematic position, occurrence, thallus structure, vegetative reproduction, asexual reproduction, sexual reproduction and graphic life cycle with alternation of generation of the following algal types i. Chlorophyceae – Oedogonium ii. Xanthophyceae – Botrydium	10	26.11.15	17.12.15
II	ALGAE-II 1. Systematic position, occurrence, thallus structure, vegetative reproduction, asexual reproduction, sexual reproduction and graphic life cycle with alternation of generation of the following algal types i. Phaeophyceae – Ectocarpus ii. Rhodophyceae - Batrachospermum 2. Economic importance of algae (Food and fodder)	10	18.12.15	08.01.16
III	BRYOPHYTES 1. General characters of bryophytes 2. Classification of bryophytes (As per N.S.Parihar) 3. Systematic position, occurrence, thallus structure(external and internal), vegetative reproduction, asexual reproduction, sexual reproduction and graphic life cycle with alternation of generation of the following types (Developmental stages not expected) i. Hepaticopsida – Riccia ii. Anthocerotopsida – Anthoceros iii. Bryopsida - Funaria	12	09.01.16	05.02.16
IV	PTERIDOPHYTES 1. General characters of Pteridophytes 2. Classification of Pteridophytes (as per N.S.Parihar) 3. LYCOPODIUM 4. EQUISETUM 5. MARSILEA	13	06.02.16	05.03.16

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Class :- B. Sc. Second Year

Year :- 2015 - 16

Semester :- III

er Name & NO. :- HISTOLOGY, ANATOMY AND EMBRYOLOGY OF ANGIOSPERMS Paper - VII

pter o.	Topic - Title	Expected Lectures	Expected Duration	
			From	To
I	HISTOLOGY Meristematic Tissue: Simple Tissues: Parenchyma, Collenchyma, Sclerenchyma. Complex tissues: Xylem and Phloem. Secretary tissues: Laticiferous tissues	10	01-Jul	22-Jul
II	ANATOMY Vascular Bundles: Definition and types. Primary structures: Root, Stem, Leaf, Secondary Growth- Anomalous Secondary growth in Achyranthes stem and Dracaena stem.	12	27-Jul	19-Aug
III	EMBRYOLOGY –I Introduction- Definition and Scope, Microsporangium- Structure , Microsporogenesis, Structure of Pollen grain, Pollination, Development of male gametophyte, Megasporangium- Structure, types ofovule	13	24-Aug	21-Sep
IV	EMBRYOLOGY –II Megasporogenesis, Development of Monosporic , Bisporic and Tetrasporic female gametophytes, Fertilization- Double fertilization & Significance, Endosperm- Definition and types, Embryo- Definition, Development of Monocot and Dicot embryo, Developmentof seed and Fruit	10	22-Sep	13-Oct

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ect :- Botany | Semester :- IV

r Name & NO. :- ECOLOGY AND ENVIRONMENTAL BIOLOGY Paper - IX

pter o.	Topic - Title	Expected Lectures	Expected Duration	
			From	To
I	ECOLOGICAL FACTORS Introduction-Definition of ecology and environment, divisions, fields and scope of ecology, Environmental or ecological factors- Climatic factors (Atmosphere, atmospheric humidity, light and temperature), Edaphic facto	10	23-Nov	14-Dec
II	ECOLOGICAL ADAPTATIONS IN PLANTS Morphological, anatomical and physiologicall responses of plants to water, Morphological and anatomical adaptation in Hydrophytes , Xerophytes, Halophytes	10	15-Dec	05-Jan
III	COMMUNITY ECOLOGY Community Ecology- Community characteristics, frequency, density, life forms and ecological succession, analysis of plant community, Ecosystem- Introduction and structure of ecosystem, Pond and grassland ecosystems, Energy flow in an ecosystem, Food chain and food web, ecological pyramids	13	06-Jan	03-Feb
IV	ENVIROMENTIAL BIOLOGY Biogeochemical cycles- Water and Nitrogen cycle, Pollution- Causes, effect and control measures of water, soil and air pollution, Soil erosion- Types, methods of soil conservation, Bio geographical regions of India, Aforestation, Deforestation and Chipko movement.	12	08-Feb	03-Mar

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Annual Teaching Plan

tment :- Botany

of Teacher :- Dr. Lakde H. M.

er :- V

Class :- B.Sc. III Year

Year :- 2015-16

Paper Name & NO. :- Theory Paper-XIII: Plant pathology - I (Optional)

er	Topic - Title	Expected Lectures	Expected Duration	
			From	To
	INTRODUCTION TO PLANT PATHOLOGY 1. Brief history and development of plant pathology with special emphasis on plant pathology in India 2. Scope and significance of plant pathology, Concept of plant disease, Causes of plant disease, 3. Classification of plant diseases on the basis of causal agents, symptoms and spread (Air, soil and seed)	10	1.07.15	21.07.15
	PLANT DISEASE DIAGNOSIS AND SEED PATHOLOGY 1. Plant disease diagnosis: Field and laboratory diagnosis-Isolation of plant pathogens, pure culture techniques, Koch's postulates 2. Seed pathology: Detection of seed borne pathogens-external and internal 3. Biodeterioration of storage food grains and fruits	10	22.07.15	17.08.15
II	PLANT DISEASE-I Symptoms, causal organism, disease cycle and control measures of the following diseases 1. Black/ Stem rust of Wheat 2. Grain smut of Jowar 3. Loose smut of Wheat 4. Green ear of Bajra	12	18.08.15	16.09.15
IV	PLANT DISEASE-II Symptoms, causal organism, disease cycle and control measures of the following diseases 1. Ergot of Bajra 2. Citrus canker 3. Root knot of Tomato 4. Powdery mildew of Black gram 5. Wilt of pigeon pea	13	18.09.15	19.10.15

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Department :- Botany — Class :- B.Sc. III Year

Name of Teacher :- Dr. Lakde H. M. — Year :- 2015-16

Semester :- VI — Paper Name & NO. :- Theory Paper-XV: Plant pathology – II (Optional)

Chapter No.	Topic - Title	Expected Lectures	Expected Duration	
			From	To
I	DISEASE DEVELOPMENT 1. Disease Development: Mode of entry of plant pathogens (through stomata, wounds, buds and root hairs), direct penetration 2. Role of environment on disease development: Temperature, moisture, wind and pH 3. Toxins in disease development: General account of Victorin, Fusaric acid and Mycotoxins (aflatoxins). 4. Enzymes in disease development: General account of Pectinases and Cellulases, Role of amylases, proteases and lipases	10	16.11.15	07.12.15
II	DEFENCE MECHANISM AND PLANT DISEASE MANAGEMENT 1. Defense mechanism in plants-Structural and biochemical 2. Plant disease management: Improved Cultural practices, Exclusion, Eradication, Chemical control: Copper fungicides, Sulphur fungicides and systemic fungicides, antibiotics, Biological control (Use of bioagents and botanicals) and IPM.	10	08.12.15	29.12.15
III	PLANT DISEASE-I Symptoms, causal organism, disease cycle and control measures of the following diseases 1. Leaf spot of Groundnut (Tikka) 2. Leaf spot of Turmeric (Colletotrichum capsici) 3. Leaf spot of Tomato 4. Late blight of Potato	12	30.12.15	27.01.16
IV	PLANT DISEASE-II Symptoms, causal organism, disease cycle and control measures of the following diseases 1. Little leaf of Brinjal 2. Downy mildew of Grapes 3. White rust of Mustard 4. Whip smut of Sugarcane 5. Yellow vein mosaic of Bhendi	13	01.02.16	29.02.

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