

Theory

Part B- Content of the Course		
Total No. of Lectures- 60		Tutorials- 0 Practical =0 (theory 4 hours per week):
L-T-P: UNIT	TOPIC	No. of Lectures
I	1.1 History of Botany and Indian Contributions. 1.2 Morphological Characteristics of lower and higher plants(Angiosperms). 1.3 Types of leaves, Inflorescence, Flowers and Fruits. 1.4 Structure of Plant cell and cell organelles, Prokaryotic and Eukaryotic Cells, types of Cell division. 1.5 Microscope structure and function of light microscope (magnification and resolving power), 1.6 Various types of Microscopes: Bright field, Phase Contrast, SEM and TEM.	12
II	1. Algae 1.1 General characteristics 1.2 Range of thallus organization, reproduction. 1.3 Types of life-cycles in algae 1.4 Role of algae in nature and its economic importance. 2. Bryophytes : 2.1 General characteristics, Ecology. 2.2 Range of thallus organization, morphology, anatomy(internal and external features) and reproduction of any one Bryophyte. 2.3 Economic importance of Bryophytes	12
III	1. Pteridophytes 1.1 General characteristics and morphology. 1.2 Stellar organization and reproduction. 1.3 Heterospory and seed habit. 1.4 Economical importance 2. Gymnosperms 2.1 General description and their distribution. 2.2 Economical importance of Gymnosperms. 3. Paleobotany 3.1 Indian contribution in Paleobotany. 3.2 Brief knowledge of Fossils and Geological time scale.	12
IV	1. Fungi 1.1 General characteristics and cell wall composition. 1.2 Mode of nutrition 1.3 Types of reproduction 1.4 Economic importance 1.5 Parasexuality and Mycorrhiza 2. Lichens: Brief knowledge and their significance.	9
Keywords/Tags: History of Botany, Paleobotany, Prokaryotes, Eukaryotes, Algae, Bryophyta, Pteridophyta, Gymnosperms, Fungi , Mycorrhiza, Lichens		

