

Date	topic
20 Feb - 25 Feb	Basics of Enzymology: Discovery and nomenclature; characteristics of enzymes
27 Feb - 28 Feb	concept of holoenzyme, apoenzyme, coenzyme and co-factors; regulation of enzyme activity; mechanism of action.
01 March - 04 March	Growth and development: Definitions; phases of growth and development; Plant hormones- auxins, gibberellins, cytokinins, abscissic acid and ethylene,
06 - 11 March	history of their discovery, mechanism of action; photo-morphogenesis;
13 - 15 March	phytochromes and their discovery, physiological role and mechanism of action
15/3 to 18/3	Lipid metabolism: Structure and functions of lipids; fatty acid biosynthesis; B-oxidation;
20/3 to 25/3	saturated and unsaturated fatty acids; storage and mobilization of fatty acids.
27/03 & 28/03	Nitrogen metabolism: Biology of nitrogen fixation
29/03 to 31/03	; importance of nitrate reductase and its regulation; ammonium assimilation.;
03/04 to 06/04	Genetic engineering and Biotechnology: Tools and techniques of recombinant DNA technology
07/04 to 08/04	cloning vectors; genomic and cDNA library; transposable elements; aspects of plant tissue culture;
10/04 to 15/04	cellular totipotency, differentiation and morphogenesis; biology of Agro-bacterium; vectors for gene delivery and marker genes
17/04 to 19/04	Morphology of plant part used, brief idea of cultivation and uses of the following: Spices- Coriander, Ferula, Ginger, Turmeric, Cloves.
19/04 to 22/04	Medicinal Plants- Cinchona, Rauwolfia, Atropa, Opium, Cannabis, Neem. Botanical description and processing of: Beverages- Tea and Coffee.
24/04 to 26/04	Rubber- Hevea. Sugar- Sugarcane. General account and sources of timber; energy plantations and bio-fuels.
01/04 to 06/04	revision