

Class XI
Subject: Bio Technology
Syllabus

Month	Name of Book	Topics & Chapters	Theory Period	Revision Periods	Practical
April		Unit_1 Introduction to Biotechnology Historical perspectives, production strategies in biotechnology. Quality control, Good Manufacturing practices, Product Safety, Good Laboratory Practices, Intellectual property, Global market,	20	4	16
May		Unit-II Biomolecules Chapter-1 Building blocks of biomolecules - Carbohydrates – Sugars and their derivatives, building block of proteins- Amino Acids, Building block of lipids- simple fatty Acid, , Glycerol and cholesterol, Building block of nucleic acid – Nucleotides.	20	4	16
June					
July		Chapter-2 Structure and function of macromolecules- carbohydrates – The energy givers, proteins- The performers, Enzyme- The catalysts, Lipids and Biomembrane – The Barrier. Nucleic acid- The Managers. Biochemical Techniques Techniques based on molecular weight or size. Techniques based on polarity or charge Techniques based of spectroscopy Techniques based on solubility	20	4	16
August		Unit 3 : Chapter-1 Principles of Genetics. Historical perspective, Multiple alleles, Linkage and crossing over Genetic mapping,	19	5	16
September		Unit 3: Chapter 2: Discovery of DNA as genetic material, Mutations, Genetic Disorders Genome function , DNA Replication , fine structure of genes, from gene to protein, Transcription, The basic processes, Genetic code, Translation,	19	5	16
October		Unit 4: Cell and Development Chapter -1 Basic Unit of Life Cell Structure and components, Organisation of life.	19	5	16
November		Chapter-2 Cell Growth and Development Cell division, Cell cycle, Cell communication, movement, Nutrition, reproduction, in vitro Animal	19	5	16
December		Cellular Techniques	15	3	12

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		Microscopy, Cell fractionation, Cell sorting, Cell growth determination.			
Jan		Genetical Techniques Chromosomal Techniques, Mutagenic Techniques, Recombination in bacteria, Breeding methods in plants, pedigree analysis in Human	18	6	16
February		Revision			
March		Exam			