

Name of Faculty: Dr. Priyanka Dhankhar

Semester: 4<sup>th</sup> Sem (EE)

Subject: Biology-I

Code: BSE-BIO-201G

<b>Sr. No.</b>	<b>Lecture No.</b>	<b>Description of Topic</b>
1st week	1	<b>Unit 1</b> Concept, definition and aspect of biology
	2	Characteristics features of living organism, cell theory, structure of prokaryotes and eukaryotes, animal and plant cell
	3	Revision
2 <sup>nd</sup> week	4	Concept and ecological aspect of single cell organism, types of microbes and their importance
	5	Mendel Law of inheritance, alleles, concept of recessiveness and dominance
	6	Cell division – mitosis and meiosis
3 <sup>rd</sup> week	7	Gene interaction, epistasis
	8	Central dogma, concept of genetic material
	9	<b>Unit II</b> Definition, structure and functions of carbohydrate
4 <sup>th</sup> week	10	Definition, structure and functions of lipid
	11	Definition, structure and functions of amino acids
	12	Proteins
5 <sup>th</sup> week	13	Nucleic acids: DNA
	14	Nucleic acid: RNA
	15	Revision
6 <sup>th</sup> week	16	Primary, secondary, tertiary and quaternary structure of protein
	17	<b>Unit III</b> Concept of genetic engineering
	18	Tools used in recombinant technology
7 <sup>th</sup> week	19	Restriction enzymes
	20	DNA modifying enzymes
	21	Revision
8 <sup>th</sup> week	22	Ligases, Gene cloning
	23	Plasmid vector
	24	Revision
9 <sup>th</sup> week	25	Transgenic plants
	26	Transgenic animals
	27	Revision
10 <sup>th</sup> week	28	Application of Biotechnology in Agriculture
	29	Application of Biotechnology in Agriculture
	30	Revision

11 <sup>th</sup> week	31	Medicine
	32	Application of biotechnology in environment
	33	Revision
12 <sup>th</sup> week	34	Sewage treatment
	35	Enzymes technology
	36	Plasmid
13 <sup>th</sup> week	37	Transgenic plants
	38	Transgenic animals
	39	Revision
14 <sup>th</sup> week	40	Revision
	41	Revision
	42	Revision