JHARKHAND Rai University
UGC RECOGNISED UNIVERSITY
ACCREDITED BY NAAC

Lesson plan & Tracking

Programe : D. Pharma	**Session : 2022-2023**	**Year : SECOND YEAR**	
Course: BIOCHEMISTRY & CLINICAL PATHOLOGY (Theory)			
Name of the Faculty: SUMANA DAS	**Commencement**	**Date of Closure:**	

Lecture No.	Week	Unit	Topics to be Covered	Blended Mode			Date	Duration	Tracking of Lectures	Related Course Outcome	Signature of Faculty	Signature of HoD	Remarks (if any)
				ICT Tool/Platform/ LMS	Resources	Activity							
1	WEEK 1	UNIT 1	Introduction to biochemistry:										
2													
3			Carbohydrates										
4	WEEK 2	UNIT 2											
5			Disaccharides										
6													
7	WEEK 3		Qualitative tests and biological role of carbohydrates										
8													
9		UNIT 3	Definition, classification of amino acids based on chemical nature and nutritional requirements with examples										
10	WEEK												

11	WEEK 4		Qualitative tests and biological role of proteins and amino acids											
12														
13	WEEK 5	UNIT 4	Definition, classification with examples, Structure and properties of triglycerides											
14														
15			Structure and functions of cholesterol in the body											
16	WEEK 6													
17			Qualitative tests and functions of lipids											
18		UNIT 5												
19	WEEK 7		Components of nucleosides and nucleotides											
20														
21			RNA											
22	WEEK 8	UNIT 6												
23			Factors affecting enzyme activity											
24														
25	WEEK 9		Mechanism of action of enzymes, Enzyme inhibitors											
26														
27			Vitamins □ Definition and											

28	WEEK 10	UNIT 7	classification with examples											
29			Sources, chemical nature, functions, coenzyme form, recommended dietary requirements, deficiency diseases of fat-and water-soluble vitamins											
30														
31	WEEK 11		Sources, chemical nature, functions, coenzyme form, recommended dietary requirements, deficiency diseases of fat-and water-soluble vitamins											
32														
33		UNIT	Metabolism (Study of cycle/pathways without chemical structures)											
34	WEEK 12													
35			Metabolism of Carbohydrates:											
36														
37	WEEK 13		Metabolism of Carbohydrates:											
38														
39			Metabolism of lipids:											
40	WEEK 14													
41			Metabolism of lipids:											
42														

43	WEEK 15	8	Metabolism of lipids:											
44														
45			Metabolism of Amino acids (Proteins):											
46	WEEK 16													
47			Metabolism of Amino acids (Proteins):											
48														
49	WEEK 17		Biological oxidation: Electron transport chain and Oxidative phosphorylation											
50														
51			Biological oxidation: Electron transport chain and Oxidative phosphorylation											
52	WEEK 18													
53		UNIT 9	Minerals: Types, Functions, Deficiency diseases, recommended dietary requirements											
54														
55	WEEK 15		Minerals: Types, Functions, Deficiency diseases, recommended dietary requirements											
56														
57			Minerals: Types, Functions, Deficiency diseases, recommended dietary requirements											
58	WEEK 16													
59			Water turnover and balance											

60		UNIT 10	Water turnover and balance										
61	WEEK 17		Electrolyte composition of the body fluids, Dietary intake of electrolyte and Electrolyte balance										
62													
63		UNIT 11	Introduction to Biotechnology										
64	WEEK 18	UNIT 12											
65			Functions of kidney and routinely performed tests to assess the functions of kidney and their clinical significances										
66													
67			Functions of liver and routinely performed tests to assess the functions of liver and their clinical significances										
68	WEEK 19												
69			Lipid profile tests and its clinical significances										
70	WEEK 20	UNIT 10											
71		UNIT 11	Lymphocytes and Platelets, their role in health and disease										
72													
73	WEEK 21	UNIT 11	Erythrocytes - Abnormal cells and their significance										
74													
75			Revision										