2ND SEM Biochemistry 1ST SESSIONAL 2025

No. of Hours	TOPIC	Days	Expected date	Conducted date	Remark
1	Introduction to Biochemistry	THU	19-06-25		
2	Introduction to Carbohydrate Metabolism	FRI	20-06-25		
3	Glycolysis– Pathway	SAT	21-06-25		
4	Glycolysis– Pathway, Energetics and Significance	THU	26-06-25		
5	Introduction to Citric Acid Cycle	FRI	27-06-25		
6	Citric Acid Cycle- Pathway, Energetics and Significance	SAT	28-06-25		
7	HMPS huntandits Significance	THU	03-07-25		
8	Glucose-6-Phosphatedehydrogenase (G6PD) Deficiency	FRI	04-07-25		
9	Glycogen metabolism Pathways and Glycogen Storage Diseases (GSD)	SAT	05-07-25		
10	Gluconeogenesis- Pathway and its Significance	THU	10-07-25		
11	Hormonal regulation of blood glucose level and Diabetes mellitus	FRI	11-07-25		
12	Introduction to **Biologicaloxidation**	SAT	12-07-25		
13	Electron transport Chain (ETC) and its Mechanism.	THU	17-07-25		
14	Oxidative Phosphorylation & its Mechanism and Substrate Level Phosphorylation	FRI	18-07-25		
15	Inhibitors ETC and oxidative phosphorylation /Uncouplers	SAT	19-07-25		
16	Introduction to **Lipid Metabolism**	THU	24-07-25		
17	β-Oxidation of saturated fatty acid (Palmitic acid)	FRI	25-07-25		
18	Formation and Utilization of Ketone Bodies; ketoacidosis Denovo synthesis of fatty acids (Palmitic acid)	SAT	26-07-25		
19	Biological significance of cholesterol andconversion of cholesterol into bile acids, steroid hormone and vitamin D	THU	31-07-25		
20	Disorders oflipid metabolism: Hypercholesterolemia, atherosclerosis, fattyliver and obesity.	FRI	01-08-25		
21	β-Oxidation of saturated fatty acid (Palmitic acid)	SAT	02-08-25		
22	Formation and Utilization of Ketone Bodies; ketoacidosis Denovo synthesis of fatty acids (Palmitic acid)	THU	07-08-25		
23	Introduction to Amino acid metabolism	FRI	08-08-25		
24	General reactions of aminoacidmetabolism:	SAT	09-08-25		
25	Transamination, Deamination &Decarboxylation, Urea Cycle and its Disorders	THU	21-08-25		

2ND SEM **Biochemistry** **2nd SESSIONAL** **2025**

No. of Hours	TOPIC	Days	Expected date	Conducted date	Remark
26	Catabolism of Phenylalanine and Tyrosine and their Metabolic Disorders (Phenylketonuria, Albinism, Alkeptonuria, Tyrosinemia)	FRI	22-08-25		
27	Synthesis and Significance of Biological Substances; 5-HT, Melatonin, Dopamine, Noradrenaline, Adrenaline	SAT	23-08-25		
28	Catabolism of Heme; Hyperbilirubinemia and Jaundice	THU	28-08-25		
29	Transamination, Deamination &Decarboxylation, Urea Cycle and its Disorders	FRI	29-08-25		
30	Catabolism of Phenylalanine and Tyrosine and their Metabolic Disorders (Phenylketonuria, Albinism, Alkeptonuria, Tyrosinemia)	SAT	30-08-25		
31	Synthesis and Significance of Biological Substances; 5-HT, Melatonin, Dopamine, Noradrenaline, Adrenaline	THU	04-09-25		
32	Catabolism of Heme; Hyperbilirubinemia and Jaundice	SAT	06-09-25		
33	Transamination, Deamination &Decarboxylation, Urea Cycle and its Disorders	THU	11-09-25		
34	Catabolism of Phenylalanine and Tyrosine and their Metabolic Disorders (Phenylketonuria, Albinism, Alkeptonuria, Tyrosinemia)	FRI	12-09-25		
35	Nucleic acid metabolism and genetic information transfer	SAT	13-09-25		
36	Biosynthesis of Purine and Pyrimidine Nucleotides	THU	18-09-25		
37	Gout disease and Structure of DNA and RNA	FRI	19-09-25		
38	Genetic code, Translation or Protein synthesis and inhibitors	SAT	20-09-25		
39	Introduction to Biomolecules	FRI	26-09-25		
40	Classification, Chemical Nature and Biological Role of Biomolecules	SAT	27-09-25		
41	Introduction to **Bioenergetics**	THU	02-10-25		
42	Concept of Free Energy, Endergonic and Exergonicreaction	FRI	03-10-25		
43	Redox Potential, Energy Rich Compounds, and ATP and Cyclic AMP	SAT	04-10-25		
44	Enzymes: Introduction, Properties, Nomenclature and IUB classification of Enzymes	THU	09-10-25		
45	Enzyme Kinetics (Michaelis plot, Line Weaver Burke Plot)	FRI	10-10-25		
46	Enzyme Inhibitors with Examples. Regulation of Enzymes:	SAT	11-10-25		
47	Enzyme Induction and Repression, Allosteric Enzymes Regulation				