

Month	Theory- 3HRS/week and SDL 1HR/week	Practical/ Demo/ DOAP – 2HRS/ week
<u>September</u>		
1 st week	Cell and its organelle 1.1	Lab apparatus 11.1
2 nd week	Enzymes 2.1 - 7	
3 rd week	Heme metabolism 6.11,	Safety and waste disposal 11.1
4 th week	Different types of Hemoglobins 6.11,	
<u>October</u>		
1 st week	Heme degradation, LFT 6.12	Preparation of Buffer and estimation of pH 11.2
2 nd week	Carbohydrate chemistry 3.1, Digestion and absorption 3.2 & 3.3	
3 rd week	Glycolysis 3.4, Gluconeogenesis 3.4. Glycogen metabolism 3.4	Demo : Normal constituents of urine 11.3
4 th week	HMP shunt pathway 3.4 TCA cycle 3.5 Regulation of Blood glucose 3.6 - 7	Practical : Normal constituents of urine 11.3
<u>November</u>		
1 st week	Lab investigation related to carbohydrate metabolism 3.8, GTT 3.10	Demo: Abnormal constituents of urine 11.4
2 nd week	Structural organization of proteins 5.1, functions of proteins in relation to structure 5.2	Practical : Abnormal constituents of urine 11.4
3 rd week	Digestion and absorption of proteins 5.3, Disorders related to protein metabolism 5.4	SGD- Inborn errors of metabolism – paper chromatography 11.5
4 th week	Disorders related to protein metabolism 5.4 Lab results 5.5,	SGD – Principles of Colorimetry 11.6,
<u>December</u>		
1 st week	Lipid chemistry 4.1, Digestion and absorption 4.2	Demo: Estimation of glucose 11.21
2 nd week	Lipo protein 4.3, Investigations related to Lipid Metabolism 4.5	Practical: estimation of glucose 11.21,
3 rd week	Prostaglandins 4.6, Lipids as a source of energy , cholesterol importance 4.7	Demo: Estimation of serum creatinine and clearance 11.7
4 th week	Integration of metabolisms 5.5	Practical ; Estimation of serum creatinine and clearance 11.7
<u>January</u>		
1 st week	Nucleic acid chemistry 6.1 Nucleotide metabolism 6.2, 6.3, Lab results 6.4	Practical: Estimation of serum creatinine and clearance 11.7
2 nd week	Fat soluble Vitamins 6.5	Demo: Estimation of Serum proteins, AG ratio 11.8
3 rd week	Water soluble Vitamins 6.5	Practical : Estimation of Serum proteins, AG ratio 11.8

4 th week	Vitamin disorders 6.5, Biological oxidation 6.6	Demo: Estimation of serum cholesterol 11.9
<u>February</u>		
1 st week	Biological oxidation 6.6, Blood pH 6.7	Practical: Estimation of serum cholesterol 11.9
2 nd week	water & Electrolyte balance, 6.7, ABG 6.8	Demo: Estimation of triglycerides 11.10
3 rd week	Minerals 6.9 & 6.10	Practical: Estimation of triglycerides 11.10
4 th week	Minerals 6.10	Demo: Estimation of calcium and phosphorus 11.11
<u>March</u>		
1 st week	RFT 6.13, TFT 6.14, Adrenal function test 6.14,	Practical: Estimation of calcium and phosphorus 11.11
2 nd week	DNA, RNA, Cell cycle, replication 6.15	Demo: Estimation of Serum Bilirubin 11.12
3 rd week	Transcription 17.1, Translation 17.2,	Practical : Estimation of Serum Bilirubin 11.12
4 th week	Gene expression 17.3, Mutations, rDNA techniques PCR 17.4	Demo: Estimation of ALP, SGOT and SGPT 11.13, 11.14
<u>April</u>		
1 st week	Xenobiotics, Free radicals, Anti oxidants, ROS 17.5	Practical : Estimation of ALP, SGOT and SGPT 11.13, 11.14
2 nd week	Oxidation stress 17.6, Dietary components, Dietary advice, Dietary fiber 17.7, 18.1	SGD – Composition of CSF 11.15
3 rd week	PEM 18.2	Demo: pH meter, 11.16 electrophoresis, 11.16 chromatography 11.16
4 th week	Obesity 18.3, 18.4	Demo: Electrolyte analyzer 11.16, auto analyzer 11.16, QC 11.16
<u>May</u>		
1 st week	Nutrition importance of Vegetables 18.5	Demo : DNA isolation 11.16
2 nd week	Extra Cellular matrix 19.1, 19.2, 19.3	SGD : Renal failure, proteinuria, nephritic syndrome, Acid base balance 11.17 SGD – Diabetes mellitus, Dyslipidemias, MI 11.24
<u>June</u>		
1 st week	Immune system 10.3	SGD: Advantages/Disadvantages of Saturated /Unsaturated fats 11.24
2 nd week	Immune system 10.3	SGD – Liver disorders 11.18
3 rd week	Immune responses (vaccine development) 10.5	SGD – Pancreatic disorders 11.19
4 th week	Immune responses (vaccine development) 10.5	SGD: Calculation of energy requirement per day 11.23
<u>July</u>		
1 st week	Cancer 10.1	SGD – Anti cancer therapy
2 nd week	Cancer 10.2	SGD – Anti cancer therapy