

**Performa Hindu College of Pharmacy, Sonapat
Lesson Plan**

Name of the Faculty : SHILPA JAIN
Discipline : D. Pharmacy
Semester : 1st Year
Subject : BIOCHEMISTRY
Lesson Plan Duration : 25 weeks (from July, 2018 to April, 2019)

Work Load(lecture/practical) per week (in hours): Lecture-02,Practicals-9hr

Week	Theory		Practical	
	lecture day	Topic (including assignment/test)	Practical day	Topic
1st(July. 3rd week)	1st	Introduction of biochemistry	1st (Batch A)	Intro. Of carbohydrates
	2nd	Cell as a basic unit	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
2nd(July. 4th week)	1st	Chemistry and classification of proteins	1st (Batch A)	Identification test of carbohydrates
	2nd	Polypeptides and amino acid classification	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
3rd (Aug. 1st week)	1st	Physical and chemical properties of proteins	1st (Batch A)	Diff. between aldose and ketose
	2nd	Structure of proteins	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
4th(Aug. 2nd week)	1st	Qualitative test of proteins and deficiency disease of proteins	1st (Batch A)	Identification of starch
	2nd	Brief chemistry and role of carbohydrates	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
5th(Aug. 3rd week)	1st	Classification of carbohydrates	1st (Batch A)	Identify given sample of carbohydrate
	2nd	Chemical reaction of carbohydrates	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
6th(Aug.	1st	Qualitative test of carbohydrates	1st (Batch A)	

Aug. 4th week)				Identify given sample of carbohydrate
	2nd	Deficiency disease of carbohydrates metabolism	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
7th (Sept. 1st week)	1st	Chemistry of lipids and Classification of lipids	1st (Batch A)	Identification of given sample of carbohydrate
	2nd	Role of lipids in biological membrane and Deficiency disease of lipid metabolism	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
8th(Sept. 2nd week)	1st	Introduction of vitamins and its classification	1st (Batch A)	Physical property of proteins
	2nd	Study fat soluble vitamins	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
9th(Sept. 3rd week)	1st	Study water soluble vitamins (B ₁ ,B ₂ ,B ₃ ,B ₅ ,B ₆)	1st (Batch A)	Colour reaction of proteins
	2nd	Study water soluble vitamins (B ₇ ,B ₉ ,B ₁₂ ,vit C)	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
10th(Sept . 4th week)	1st	Study Cofactors	1st (Batch A)	Precipitation reaction of proteins
	2nd	Role of water in life process	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
11th(Oct. 1st week)	1st	Study Cofactors	1st (Batch A)	Identify given sample of protein
	2nd	Role of water in life process	2nd(Batch B)	do
	3rd		Batch C	do

	4th			
12th(oct. 2nd week)	1st	Introduction of minerals and and its classification	1st (Batch A)	Identify given sample of protein
	2nd	Study minerals (Ca, P, K, Cl) in detail	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
13th (oct. 3rd week)	1st	Study minerals (Fe, Mg, S, I) in detail	1st (Batch A)	Physical properties of urine
	2nd	Study minerals (Cu, F, Zn, Mo) in detail	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
14th(Nov. 2nd week)	1st	Brief concept of enzyme action	1st (Batch A)	Normal inorganic constituents of urine
	2nd	Naming and classification of enzymes	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
15th (Nov. 3rd week)	1st	Mechanism of enzyme action	1st (Batch A)	Normal organic constituents of urine
	2nd	Factors affecting enzyme action and Enzyme inhibition	2nd(Batch B)	do
	3rd		Batch C	do
	4th			

16th (Dec. 1st week)	1st	Diagnostic and Therapeutic applications of enzymes	1st (Batch A)	Abnormal constituents of urine
	2nd	Introduction of metabolism and metabolism of carbohydrates	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
17th(Dec. 2nd week)	1st	Study glycolysis	1st (Batch A)	Identify given sample of urine
	2nd	citric acid cycle	2nd(Batch B)	do
	3rd		Batch C	do

	4th			
18th (Jan. 2nd week)	1st	Study gluconeogenesis, glycogenesis	1st (Batch A)	Identify given sample of urine
	2nd	Study glycogenolysis and ETC	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
19th (Jan. 3rd week)	1st	Abnormalities due to metabolism of carbohydrates	1st (Batch A)	Viva- voice
	2nd	Study urea cycle and inborn error of metabolism	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
20th (Jan. 4th week)	1st	Study metabolism of lipids	1st (Batch A)	Introduction of lipids
	2nd	β oxidation of fatty acids	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
21th (Feb. 1st week)	1st	Study fatty acid synthesis	1st (Batch A)	Physical and chemical properties of fatty acids
	2nd	mitochondrial fatty acid synthesis	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
22th (Feb. 2nd week)	1st	Cholesterol synthesis	1st (Batch A)	Physical and chemical test of cholesterol
	2nd	ketogenesis	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
23th (Feb. 3rd week)	1st	Blood, erythrocytes- abnormalities of erythrocytes	1st (Batch A)	Identify given sample of lipid
	2nd	Lymphocytes and platelets, their role in health	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
24th (Mar. 1st week)	1st	Characteristics of normal and abnormal urine	1st (Batch A)	Route of administration of drug
	2nd	Abnormal constituents of urine and their identification test	2nd(Batch B)	do
	3rd		Batch C	do
	4th			
25th (Apr 1st week)	1st	Practical sessional		
	2nd	Revision for exam		

