LESSON PLAN

NAME OF FACULTY : Surender Sharma

DISCIPLINE : DMLT

SEMESTER : 4th

SUBJECT : Clinical Biochemistry IV

LESSON PLAN DURATION : 15 Weeks (from january , 2018 to April, 2018)

Work Load Per week : Lectures- 3, Practical -3

WEEK	THEORY		PRACTICAL	
	LECTURE DAY	TOPIC (ASSINGNMET/TEST)	PRACTICAL DAY (Each day for 3 hours)	TOPIC
1st	1	Urine analysis introduction	1st	Analysis of urine for sugar and proteins (qualitative and quantitative)
	2	composition of urine		
	3	Clinical importance of urine analysis		
2nd	4	Qualitative analysis of proteins	2nd	Detection of ketone bodies in urine
	5	Qualitative analysis of sugar		
	6	Qualitative analysis of bile salts and bile pigments		
3rd	7	Qualitative analysis of urobilinogen and blood	3rd	Detection of haematuria
	8	glycosuria and albuminuria		
	9	Ketone bodies		
4th	10	Urinary electrolytes estimation (Na, K ad Cl)	4th	Detection of bile pigments
	11	Revision of unit 1		
	12	Physical characteristics and chemical composition of stool		

5th	13	Physical characteristics and chemical composition of stool	5th	Detection of bile salts
	14	presence of blood in stool		
	15	presence of excess fat in stool		
6th	16	Occult blood detection		Detection of urobilinogen
	17	Revision of unit 2		
	18	Test and assignmet of unit 1 and 2		
7th	19	Introduction to CSF	7th	Occult blood test for stool specimen
	20	Composition of CSF and its functions		
	21	Methods of determination of proteins in CSF		
8th	22	Methods of determination of sugar and chloride in CSF	8th	Estimation of glucose in CSF (only introduction)
	23	Reference Values and Clinical importance		
	24	Introduction and type of biological fluids		
9th	25	Formation, composition and significance of peritoneal fluid.	9th	Estimation of total proteins and globulins in CSF (only introduction)
	26	Formation, composition and significance of pleural fluid		
	27	Formation, composition and significance of Synovial fluid.		

10th	28	Revision	10th	Estimation of chloride in CSF (only introduction)
	29	Electrophoresis Principle and procedure of paper electrophoresis,		
	30	Electrophoresis Principle and procedure of gel electrophoresis,		
11th	31	method of elution and Clinical importance	11th	Demonstration of electrophoresis (Paper electrophoresis)
	32	Test and assignment of unit 3,4,5		
	33	Chromatography introduction		
12th	34	separation between stationary and mobile phases	12th	Demonstration of chromatography (Paper chromatography)
	35	Principle and procedure of Paper chromatography		
	36	Importance of chromatography		
13th	37	Automation in Biochemistry	13th	Detection of bile pigments
	38	Classification and types of Auto analyzers		
	39	Fully automated		
14th	40	Semi automated	14th	Detection of bile salts
	41	Thyroid function tests introduction		
	42	Clinical importance of T3, T4 and TSH		
15th	43	Introduction to Tumor markers	15th	Detection of urobilinogen
	44	Commonly used		

		Tumor Markers (Cancer Markers)		
	45	Assignment and test of unit 6,7,8 and 9		