Lesson Plan

Name of the Faculty : guest faculty

Discipline : Medical Lab Technology

Year : 1st Year

Subject : Haematology-I&11

Lesson Plan : 30 weeks (from July2018 -April 2019)

Work load (lecture/practical) per week (in hours) : Lectures-03, practicals-04

Week	**Theory**		**Practical**	
	Lecture day	**Topic(including assignment test)**	**Practical Day (2 hours lab each day), (2 hours each day*2days in week=4 weekly load)**	**Topic**
1st	1st	Introduction to the whole syllabus of Haematology-I	1st & 2nd	Demonstration of safety rules(universal precautions) in haematology laboratory
	2nd	**Ch - 1** Haematology		
	3rd	Various glasswares used in lab		
2nd	4th	Various plasticwares used in lab	3rd &4th	Demonstration of Various equipments
	5th	Hb tube , Hb pipette		
	6th	Assignment -1 Various wares used in lab		
3rd	7th	RBC , WBC pipette	5th & 6th	Demonstration of various parts of centrifuge

	8th	Revision of unit 1		
	9th	Apparatus and instruments used in lab		
4th	10th	Test of unit 1	7th & 8th	Functioning and care of centrifuge
	11th	Water bath , blood cell counter		
	12th	Blood mixer		
5th	13th	Assingnment -2 Centrifuge and blood mixer	9th & 10th	Viva of the exrperiments performed in lab
	14th	Revision of unit 2		
	15th	Haemopoeisis		
6th	16th	Erythropoiesis	11th & 12th	Demo of various parts of microscope functioning and care
	17th	Test of unit 2		
	18th	Thrombopoeisis		
7th	19th	Definition composition and function of blood	13th & 14th	Preparation of various anticoagulants
	20th	Anticoagulants		
	21st	Definition and various types of anticoagulants		

8th	22nd	Merits and demerits	15th & 16th	Collection of venous and capillary blood
	23rd	Collection and preservation of blood		
	24th	Collection of venous and capillary		
9th	25th	Revision of unit 3	17th &18th	Preparation of stains and other reagents
	26th	Various equipments used for collection of blood samples		
	27th	Safety measures at time of sampling and processing		
10th	28th	Preservation of processed blood samples in hematology	19th &20th	Preparationof peripheral blood film
	29th	Test of unit 3		
	30th	Diluting fluid (hb,tlc,platlets,rbc count)		
11th	31st	Assignment -3 Uses,preparation and composition	21st &22nd	To stain a peripheral film by Romanowsky stain
	32nd	Revision of unit 4		
	33rd	Romanowsky stains		
12th	34th	Theory and preparation	23rd & 24th	Revision of experiments
	35th	Choice of slide and spreader and preparation of blood film		

	36th	Revision of unit 5		
13th	37th	Staining procedure	25th & 26th	Doubt session
	38th	Test of unit 5		
	39th	Effects of ph on staining		
14th	40th	Revision of unit 6	27th & 28th	VIVA
	41st	Test of unit 6		
	42nd	Revision of unit 7		
15th	43th	Doubt class of unit 1 to 3	29th & 30th	Revision of experiments
	44th	Doubt class of unit 4 to 7		
	45th	Revision of whole syllabus		
16st	46th	Introduction to the whole syllabus of hematology-II	31st & 32nd	Preparation of peripheral blood film.
	47th	**Ch – 1**Haemoglobinometery introduction		
	48th	Formation of haemoglobin		
17th	49th	Formation of haemoglobin	33rd &34th	Preparation and standardization of stains (leishman and giemsa)

	50th	functions and its degradation		
	51st	Types of haemoglobin		
18th	52nd	Types of haemoglobin		
	53rd	Various methods of estimation with specific reference to cyanmethaemoglobin method	35th & 36th	Preparation of thick and thin blood smear
	54th	Ch -2 Haemocytometery introduction		
19th	55th	Various counting chambers	37th & 38th	Haemoglobin Estimation by Sahli's method
	56th	Various counting chambers		
	57th	Methods of counting of RBC their calculation and reference values		
20th	58th	Methods of counting of WBC their calculation and reference values	39th & 40th	Viva of the exrperiments performed in lab
	59th	Methods of counting of platelets their calculation and reference values		
	60th	Assignment - 1Common Errors involved in haemocytometery and means to minimize them		
21st	61st	Classtest -1 of the syllabus covered in the class	41st & 42nd	Counting of RBC
	62nd	Ch -3 Differential leucocyte counting (DLC)		
	63rd	Preparation and staining of blood film		

22nd	64th	Performance of DLC	43rd & 44th	Counting of WBC
	65th	Assignment -2 Normal values and significance of DLC		
	66st	Blood cell morphology in health and disease (Peripheral blood film)		
23rd	67th	Ch - 4 Quality Assurance in haematology- introduction and need	45th & 46th	Revision of experiment
	68th	Description of precision &accuracy		
	69th	Description of standard deviation as per national standards		
24th	70th	Revision of ch- 3	47th &48th	Demonstration of Platelet counting
	71st	Revision of ch -4		
	72th	Classtest- 2 of ch – 3,4		
25th	73rd	Ch - 5 Automation in haematology – introduction	49th &50th	Study of morphology of normal RBC with the help of stained slide
	74th	Various types of Blood cell counter		
	75th	Various types of Blood cell counter		
26th	76th	Various types of Blood cell counter	51st &52nd	Study of morphology of normal WBC with the help of stained slide
	77th	Principle and operation of the automated blood cell counters		

	78th	Principle and operation of the automated blood cell counters		
27th	79th	Revision of ch -5	53rd & 54th	Viva of experiments
	80th	Class test – ch -5		
	81st	Revision of ch – 1		
28th	82nd	Revision of ch – 2	55th & 56th	To study abnormal morphology of RBC,WBC,platelets
	83rd	Revision test		
	84th	Revision of ch – 3		
29th	85th	Assignment -3 (Various types of Blood cell counter)	57th & 58th	Viva of experiments
	86th	Revision of ch – 4		
	87th	Revision test		
30th	88th	Revision of ch – 5	59th &60th	Revision of full practical syllabus
	89th	Revision of full theory syllabus/Problem solving of students		
	90th	Revision of full theory syllabus/Problem solving of students		