LESSION PLAN

NAME OF THE FACULTY : RAVINDER KUMAR

DISCIPLINE : ECE

SEMESTER : VIth

SUBJECT : MEDICAL ELECTRONICS

LESSON PLAN DURATION : - 15 weeks (from January 2018 to April 2018)

WORK LOAD (LECTURE/PRACTICAL) PER WEEK (IN HOURS):- LECTURE-**04**, PRACTIACL-**03** PER GROUP

WEEK	THEORY		PRACTICAL	
	LECTURE DAY	TOPIC (including assignment/test)	PRACTICAL DAY	TOPIC
1st	1st	Introduction about subject.	1st Group-1	Introduction about Practical MEDICAL ELECTRONICS
	2nd	Anatomy and physiology.		
	3rd	Elementary ideas of cell structure.	2nd Group-2	Introduction about Practical MEDICAL ELECTRONICS
	4th	Elementary ideas of Heart.		
2nd	5th	Elementary ideas of circulatory system	3rd Group-1	To operate and feminization with:B.P. Apparatus,ECG Machine
	6th	Elementary ideas of Central nervous system.		
	7th	Elementary ideas of Muscle action.	4th Group-2	To operate and feminization with:B.P. Apparatus,ECG Machine
	8th	Elementary ideas of Respiratory system.		
3rd	9th	Body temperature and reproduction system.	5th Group-1	To measure the concentration of blood sugar with Glucometer (fasting, P.P., Random)
	10th	Overview of Medical Electronics Equipments.		
	11th	Classification of Medical Electronics Equipments	6th Group-2	To measure the concentration of blood sugar with Glucometer (fasting, P.P., Random)
	12th	Application and specifications of diagnostic.		
4th	13th	Application and specifications of therapeutic .	7th Group-1	To measure the concentration of blood sugar with Glucometer (fasting, P.P., Random)
	14th	Application and specifications of clinical laboratory equipment.		

	15th	Method of operation of all above instruments.	8th Group-2	To measure the concentration of blood sugar with Glucometer (fasting, P.P., Random)
	16th	Method of operation of all above instruments.		
5th	17th	Assignment	9th Group-1	To measure the Respiration rate,Pulse rate
	18th	REVISION		
	19th	REVISION	10th Group-2	To measure the Respiration rate,Pulse rate
	20th	**1st Sessional Test**		
6th	21th	Electrodes	11th Group-1	To measure the Respiration rate,Pulse rate
	22th	Signals Bioelectric		
	23th	Bio electrodes, Electrode	12th Group-2	To measure the Respiration rate,Pulse rate
	24th	Electrode tissue interface contact impedance.		
7th	25th	Types of Electrodes	13th Group-1	Installation of small medical equipment in laboratories of Hospital precautions to be taken.
	26th	Electrodes used for ECG , EEG		
	27th	Transducers	14th Group-1	Installation of small medical equipment in laboratories of Hospital precautions to be taken.
	28th	Typical signals from physiological parameters.		
8th	29th	Pressure transducer	15th Group-1	Study of large medical equipment in Hospital / Nursing home
	30th	Flow transducer		
	31th	Tmperature transducer	16th Group-2	Study of large medical equipment in Hospital / Nursing home
	32th	Pulse sensor		
9th	33th	Respiration sensor	17th Group-1	Study of large medical equipment in Hospital / Nursing home
	34th	Bio Medical Recorders		
	35th	ECG Machine	18th Group-2	Study of large medical equipment in Hospital / Nursing home
	36th	EEG Machine		

10th	37th	EMG Machine	19th Group-1	Operation and use of Electro-physiotherapy
	38th	Assignment		
	39th	REVISION	20th Group-2	Operation and use of Electro-physiotherapy
	40th	**2nd Sessional Test**		
11th	41th	Patient Monitoring Systems.	21th Group-1	Operation and use of Electro-physiotherapy
	42th	Heart rate measurement.		
	43th	Pulse rate measurement.	22th Group-2	Operation and use of Electro-physiotherapy
	44th	Respiration rate measurement.		
12th	45th	Blood pressure measurement.	23th Group-1	Maintenance schedule for different equipment and their records in a hospital
	46th	Principle of defibrillator and pace mark.		
	47th	Use of Microprocessor in patent monitoring	24th Group-2	Maintenance schedule for different equipment and their records in a hospital
	48th	Blood Sugar Measurement		
13th	49th	Safety Aspects of Medical Instruments	25th Group-1	Revision & Viva
	50th	Gross current shock		
	51th	Micro current shock	26th Group-2	Revision & Viva
	52th	Special design from safety consideration		
14th	53 th	Safety standards.	27th Group-1	Revision & Viva
	54th	Assignment		
	55th	REVISION	28th Group-2	Revision & Viva
	56th	REVISION		
15th	57th	REVISION	29th Group-1	Revision & Viva
	58th	REVISION		
	59th	REVISION		
	60th	**3rd Sessional Test**	30th Group-2	Revision & Viva