

Lesson Plan

Name of the Faculty	Saini jutega		
Discipline	:	Pharmacy	
Semester	:	1st Year	
Subject	:	Pharmaceutical chemistry-I	
Lesson Plan Duration	:	25 weeks (from July, 2019 to March, 2020S)	
Work Load(lecture/practical) per week (in hours): Lecture-03, Practicals-09			

Week	Theory		Practical	
	lecture day	Topic (including assignment/test)	Practical day	Topic
1 st (July. 3rd week)	1st	Study of acids, bases and buffers	1st (Batch A)	To study the various apparatus used in laboratory
	2nd	Boric acid*, Hydrochloric acid, strong ammonium hydroxide,	2 nd (Batch B)	-do-
	3rd	Calcium hydroxide, Sodium hydroxide and official buffers.	Batch C	-do-
2 nd (July. 4th week)	1st	Antioxidants "Hypophosphorous acid, Sulphur dioxide, Sodium bisulphate	1st (Batch A)	Limit test for Chloride with given sample
	2nd	Sodium metabisulphite, Sodium thiosulphate, Nitrogen and Sodium Nitrite.	2nd(Batch B)	-do-
	3rd	Gastrointestinal agents Acidifying agents Dilute hydrochloric acid.	Batch C	-do-
3rd(Aug. 1st week)	1st	Antacids-Sodium bicarbonate, Aluminium hydroxide gel, Aluminium Phosphate,	1st (Batch A)	Limit test for Chloride with given unknown sample
	2nd	Calcium carbonate, Magnesium carbonate, ,	2nd(Batch B)	-do-
	3rd	Magnesium trisilicate, Magnesium oxide,	Batch C	-do-
4th(Aug.. 2nd week)	1st	Combinations of antacid preparations.	1st (Batch A)	Limit test for Sulphate with given sample
	2nd	Saline Cathartics-Sodium potassium tartrate and Magnesium sulphate.	2nd(Batch B)	-do-
	3rd	Protectives-Talc, Zinc Oxide, Calamine	Batch C	-do-

5th(Aug. 3rd week)	1st	Zinc stearate, Titanium dioxide, Silicone polymers.	1st (Batch A)	Limit test for Sulphate with given unknown sample
	2nd	Antimicrobials and Astringents “Hydrogen peroxide”, Potassium permanganate	2nd(Batch B)	-do-
	3rd	Chlorinated lime, Iodine, Solutions of Iodine, Povidone-iodine	Batch C	-do-
6th(Aug. 4th week)	1st	Boric acid, Borax. Silver nitrate,	1st (Batch A)	Limit test for Sulphate with given unknown sample
	2nd	Mercury, Yellow mercuric oxide,	2nd(Batch B)	-do-
	3rd	Sulphur and its compounds“Sublimed sulphur	Batch C	-do-
7th (Sept. 1st week)	1st	precipitated sulphur, selenium sulphide	1st (Batch A)	Limit test for Iron with given sample
	2nd	Astringents Alum and Zinc Sulphate	2nd(Batch B)	-do-
	3rd	Mild silver protein, Ammoniated mercury	Batch C	-do-

8th Sept. 2nd week)	1st	Strontium chloride, Zinc chloride	1st (Batch A)	Limit test for Iron with given unknown sample
	2nd	Inhalants“Oxygen, Carbon dioxide, Nitrous oxide	2nd(Batch B)	-do-
	3rd	Respiratory stimulants“Ammonium Carbonate	Batch C	-do-
9th(Sept 3rd Week	1st	Expectorants and Emetics“Ammonium chloride	1st (Batch A)	
	2nd	Potassium iodide, Antimony potassium tartrate.	2nd(Batch B)	
	3rd	Antidotes-Sodium nitrate	Batch C	
10th Sept. 4th week)	1st	Electrolytes used for replacement therapy	1st (Batch A)	Limit test for Iron with given unknown sample
	2nd	Sodium chloride and its preparations, Potassium chloride and its preparations	2nd(Batch B)	-do-
	3rd	Physiological acid-base balance and electrolytes	Batch C	-do-
11th(Oct. 1st week)	1st	Sodium acetate, Potassium acetate	1st (Batch A)	Demonstration of limit test for Arsenic
	2nd	Sodium bicarbonate injection, Sodium citrate, Potassium citrate	2nd(Batch B)	-do-
	3rd	Sodium lactate injection, Ammonium chloride and its injection	Batch C	-do-
12th(Oct 2nd week)	1st	Combination of oral electrolyte powders and solutions	1st (Batch A)	To determine the normality of Sodium carbonate
	2nd	Inorganic Official compounds	2nd(Batch B)	-do-
	3rd	Iron, Iodine	Batch C	-do-
		3rd & 4th Week of Oct. 1st Sessional exams		
13th(Nov 1st week)	1st	Calcium, Ferrous Sulfate	1st (Batch A)	To determine the normality of Sodium bi carbonate
	2nd	Calcium gluconate.	2nd(Batch B)	-do-
	3rd	Radio pharmaceuticals	Batch C	-do-

14 th (Nov 2 nd Week)	1st	Radio activity-Alpha, Beta and Gamma Radiations	1st (Batch A)	Standardisation of Pot. permanganate
	2nd	Biological effects of radiations	2nd(Batch B)	-do-
	3rd	Measurement of radio activity	Batch C	-do-
15 th (Nov. 3 rd Week)	1st	Radio isotopes their uses	Batch A	Assay of Ferrous Sulphate
	2nd	Storage and precautions with special reference to the official preparations	Batch B	-do-
	3rd	G. M. Counter	Batch C	-do-
16 th (Nov. 4 th Week)	1st	Radio opaque Contrast media“Barium sulfate.	Batch A	Assay of Copper Sulphate
	2nd			
	3rd	Importance of quality control	Batch C	-do-
17 th (Dec. 1 st Week)	1 st	Significant errors, methods used for quality control	Batch A	Assay of Magnesium sulphate
	2nd	Sources of impurities in Pharmaceuticals	Batch B	-do-
	3rd	Sources of impurities in Pharmaceuticals	Batch C	-do-
18 th (Dec. 2 nd Week)	1 st	Limit test for Chloride	Batch A	Assay of Borax
	2nd	Limit test for Chloride	Batch B	-do-
	3rd	Limit test for Sulphate	Batch C	-do-
		3rd & 4th Week of Dec. 2nd Sessional exams and winter break upto 1st Week of Jan.		
19 th (Jan. 2 nd Week)	1st	Limit test for Sulphate	Batch A	Assay of Hydrogen peroxide
	2nd	Limit test for Iron	Batch B	-do-
	3rd	Limit test for Iron	Batch C	-do-
20 th (Jan. 3 rd Week)	1st	Limit test for Heavy metals	Batch A	Viva
	2nd	Limit test for Arsenic	Batch B	-do-
	3rd	Limit test for arsenic	Batch C	-do-
	1st	Identification of cat ions	Batch A	Identification of Calcium gluconate

21th (Jan. 4th Week)	2nd	Identification of cat ions	Batch B	-do-
	3rd	Identification of an ions	Batch C	-do-
22nd (Feb. 1st Week)	1st	Identification of an ions	Batch A	Identification of Sodium bi carbonate
	2nd	Dental Products“Sodium Fluride	Batch B	-do-
	3rd	Dental Products Stannous Flouride	Batch C	-do-
23rd (Feb. 2nd Week)	1st	Calcium carbonate, Sodium metaphosphate, Dicalcium phosphate	Batch A	Viva
	2nd	Sessional rivision	Batch B	-do-
	3rd	Sessional rivision	Batch C	-do-
24th Feb. 3rd Week)	1st	Protectives and Adsorbents	Batch A	Identification of Hydrogenper oxide
	2nd	Bismuth subcarbonate and Kaolin	Batch B	-do-
	3rd	Protectives and Adsorbents	Batch C	-do-
25th Feb. 4th Week		Revision		
26th (March 1st and 2nd Week)	1st	Revision and Class tests	Batch A	Viva
	2nd		Batch B	-do-
	3rd	3rd &4thWeek of March. 3rd Sessional exams.	Batch C	-do-

