

**LESSON PLAN**

Faculty Name: Ms. Parvinder

Subject Name: P'ceutical Inorganic Chemistry

Class: B. Pharmacy - Ist Semester

Subject Code: BP104T

Scope of the Subject: This course mainly deals with the monographs of inorganic drugs and pharmaceuticals. The subject covers the information about the official compounds like preparation, physical and chemical properties, uses and storage.

Course outcome: Upon completion of this course the student shall be able to:

- Know the sources of impurities and methods to determine the impurities in inorganic drugs and pharmaceuticals.
- Design and carry out scientific experiments and analyze the results of such experiments.
- Understand the medicinal and pharmaceutical importance of inorganic compounds.

Number of Lectures: 45 + 5

Each lecture: 01 hour

Lecture No.	Particular	Remark/Date
Introduction		
1.	General discussion about inorganic compounds and subject	
Module 1: Impurities in pharmaceutical substances		
2.	History of Pharmacopoeia	
3.	History of Pharmacopoeia	
4.	Sources and types of impurities	
5.	Limit test for chloride & Modified limit test for chloride	
6.	Limit test for sulphate & Modified limit test for sulphate	
7.	Limit test for Iron	
8.	Limit test for arsenic	
9.	Limit test for Lead	
10.	Limit test for heavy metals	
Module 2: Acids, Bases and Buffers		
11.	Definitions, acid- base concepts and properties	
12.	Buffer definition, preparation and importance in pharmaceutical systems	
13.	Buffer equations and buffer capacity, Buffered isotonic solutions	
14.	Measurements of tonicity and methods of adjusting isotonicity	
15.	Functions of major physiological ions	
16.	Electrolytes used in the replacement therapy: Sodium chloride, Potassium chloride, Calcium gluconate	
17.	Oral Rehydration Salt (ORS), Physiological acid base balance	

18.	Dentifrices, role of fluoride in the treatment of dental caries	
19.	Desensitizing agents, Calcium carbonate	
20.	Sodium fluoride, and Zinc eugenol cement.	
Module 3: Gastrointestinal agents		
21.	Acidifying agents:- Ammonium chloride and Dil. HCl	
22.	Antacids:- Ideal properties of antacids, Sodium Bicarbonate	
23.	Aluminum hydroxide gel, Magnesium hydroxide mixture	
24.	Combinations of antacids preparations	
25.	Cathartic:- Mechanism and classification	
26.	Magnesium sulphate, Sodium orthophosphate	
27.	Kaolin and Bentonite	
28.	Antimicrobials:- Mechanism and classification	
29.	Potassium permanganate, Boric acid, Hydrogen peroxide	
30.	Chlorinated lime, Iodine and its preparations	
Module 4: Miscellaneous compounds		
31.	Expectorants:- Mechanism	
32.	Potassium iodide, Ammonium chloride	
33.	Emetics:- Copper sulphate, Sodium potassium tartarate	
34.	Haematinics:- Classification and Mechanism	
35.	Ferrous sulphate, Ferrous gluconate	
36.	Poison and Antidote:- Classification and Mechanism of antidote, Sodium thiosulphate	
37.	Activated charcoal, Sodium nitrite	
38.	Astringents: Zinc Sulphate, Potash Alum	
Module 5: Radiopharmaceuticals		
39.	Radio activity, Properties of α , β , γ radiations	
40.	Half life, radio isotopes	
41.	Study of radio isotopes - Sodium iodide I131	
42.	Measurement of radioactivity	
43.	Storage conditions and precautions	
44.	Radio opaque contrast media – Barium chloride	
45.	Pharmaceutical application of radioactive substances	
Revision		
46.	Revision of previous question papers	
47.	Revision of previous question papers	
48.	Revision of previous question papers	
49.	Revision of previous question papers	
50.	Revision of previous question papers	

Teacher in-charge

HOD

Principal