

Programme: B. Pharm

Course: Pharmaceutical Inorganic Chemistry

Course Code: BP104T

Enrolment no. _____

Full Marks: 75

Time: 3 Hrs.

Q.No.	Questions	CO	Bloom Taxonomy Category	Marks
Section I				
1	<p>Objective Type Questions</p> <p>i. What is the pH of a neutral solution at 25°C? (a) 0 (b) 7 (c) 10 (d) 14</p> <p>ii. The primary intracellular cation in the human body is: (a) Sodium (Na⁺) (b) Potassium (K⁺) (c) Calcium (Ca²⁺) (d) Chloride (Cl⁻)</p> <p>iii. Which of the following is commonly used as an antacid? (a) Sodium bicarbonate (b) Calcium carbonate (c) Magnesium hydroxide (d) All of the above</p> <p>iv. Which of the following is a side effect of magnesium-based antacids? (a) Constipation (b) Diarrhea (c) Nausea (d) Acid rebound</p> <p>v. Which of the following is an example of an emetic? (a) Ipecac syrup (b) Diphenhydramine (c) Loperamide (d) Caffeine</p> <p>vi. Which of the following compounds is an example of an inorganic salt? (a) Sodium chloride (NaCl) (b) Glucose (C₆H₁₂O₆) (c) Acetone (d) Aspirin (C₉H₈O₄)</p> <p>vii. Which element is commonly known as "quick silver" (a) Mercury (b) Zinc (c) Lead (d) Copper</p> <p>viii. Which of the following is an example of a noble gas used in radiopharmaceuticals? (a) Xenon-133 (b) Argon-40 (c) Neon-20 (d) Helium-4</p> <p>ix. What is the main disadvantage of aluminum-based antacids? (a) Diarrhea (b) Constipation (c) Acid rebound (d) Drowsiness</p> <p>x. A substance that donates protons in a reaction is classified as: (a) A base (b) An acid (c) A buffer (d) A salt</p> <p>xi. How often is the Indian Pharmacopoeia updated? (a) Every 2 years (b) Every 5 years (c) Every 10 years (d) Every year</p> <p>xii. The Indian Pharmacopoeia 2022 is which edition of the IP? (a) 8th (b) 6th (c) 9th (d) 10</p> <p>xiii. Which of the following is a strong acid? (a) Acetic acid (b) Hydrochloric acid (c) Ammonia (d) Sodium hydroxide</p> <p>xiv. Which of the following describes a Bronsted-Lowry base? (a) Proton donor (b) Proton acceptor (c) Electron pair donor (d) Electron pair acceptor</p> <p>xv. Which of the following is the major extracellular cation? (a) Potassium (K⁺) (b) Sodium (Na⁺) (c) Calcium (Ca²⁺) (d) Magnesium (Mg²⁺)</p> <p>xvi. Which of these antacids can cause "acid rebound"? (a) Aluminum hydroxide (b) Calcium carbonate (c) Magnesium hydroxide (d) Sodium bicarbonate</p> <p>xvii. Milk of magnesia contains: (a) Magnesium chloride (b) Magnesium sulfate (c) Magnesium hydroxide (d) Magnesium carbonate</p> <p>xviii. Which metal salt is commonly used to treat peptic ulcers by coating the stomach lining? (a) Magnesium chloride (b) Bismuth subsalicylate (c) Aluminum sulfate (d) Calcium phosphate</p> <p>xix. The first United States Pharmacopoeia (USP) was published in which year? (a) 1776 (b) 1820 (c) 1900 (d) 1950</p> <p>xx. What is the chemical formula of sodium bicarbonate? (a) NaOH (b) Na₂CO₃ (c) NaHCO₃ (d) NaCl</p>	CO1	Remember	1 x 20 = 20
Section II				
2. Short Answer type questions.				
a	Write in details about test for purity for pharmaceutical substances.	CO1	Remember	

b	Briefly explain limit test of chloride.	CO1	Understand	7 x 5 = 35
c	What is anticaries agent explain with examples.	CO2	Understand	
d	Explain Bronsted acid-base theory.	CO2	Understand	
e	Write down the various sources of impurities in pharmaceutical substances.	CO1	Analyze	
f	Give the preparation, assay and uses of ammonium Chloride.	CO3	Apply	
	or			
	Describe various disease of git and the importance of gastrointestinal agents.	CO3	Remember	
g	What are haematinics? Give the method of preparation, assay principle and medicinal uses of ferrous sulphate.	CO4	Remember	
	or			
	Explain the method of preparation and assay of Copper sulphate.	CO4	Understand	
Section III				
Long Answer Type questions				
3	Highlight the clinical applications of radio isotopes? Write a note on half-life of radioactive element.	CO5	Analyze	2 x 10 = 20
	or			
	Explain the various methods employed for the measurements of radioactivity.	CO5	Evaluate	
4	How expectorants help in release in mucus. Classify it. Briefly explain about ammonium chloride	CO4	Analyze	
	or			
	Evaluate various antidotes. Classify antidotes. Briefly explain about Sodium thiosulphate and Activated charcoal.	CO4	Evaluate	

Course Outcomes (CO):

CO1: Explain the effects of impurities in pharmaceuticals.

CO2: Describe the principles and methods of limit tests to control common impurities in pharmaceutical substances.

CO3: To understand the medicinal and pharmaceutical importance of inorganic compounds.

CO4: Appreciate the importance of inorganic pharmaceuticals in preventing and curing the disease.

CO5: Explain different pharmaceutical buffers, their preparations, uses in pharmaceutical system, measurement of tonicity