Graphic Era HILL UNIVERSITY
Established by an Act of the State Legislature of Uttarakhand (Adhiniyam Sankhya 12 of 2011)
University under section 2(f) of UGC Act, 1956

Sessional I (Odd) Semester Examination September 2025

Roll no.....

Name of the Course: B. Pharm.
Semester: I
Name of the Paper: Pharmaceutical Inorganic Chemistry
Paper Code: BP104T
Time: 1.5 hour **Maximum Marks: 30**

Note:
(i) This question paper contains three sections
(ii) All the sections are compulsory

Section-A

MULTIPLE CHOICE QUESTION **10 X 1 = 10 MARKS**

S.N	QUESTIONS	Cos
1.	The Indian Pharmacopoeia Commission (IPC) is located at: a) Hyderabad b) Ghaziabad c) Mumbai d) Kolkata	CO-1
2.	Impurities arising from reagents used in synthesis are best classified as: a) Raw material impurities b) Intentional impurities c) Storage impurities d) Manufacturing impurities	
3.	The concentration of standard iron solution in the limit test for iron as: a) 10ppm b) 15ppm c) 20ppm d) 25ppm	
4.	In the chloride limit test, the reagent used is: a) Silver nitrate b) Barium chloride c) Lead acetate d) Dithizone	
5.	Arsine gas reacts with: a) Silver nitrate paper b) Mercuric chloride paper c) Lead acetate paper d) Potassium iodide paper	
6.	The Henderson–Hasselbalch equation is used to calculate: a) Buffer capacity b) Osmotic pressure c) pH of buffer solution d) Ionic strength	CO-2
7.	Isotonic solutions are important in pharmaceuticals because: a) They maintain same osmotic pressure as body fluids b) They maintain high solubility of drugs c) They increase pH stability d) They prevent oxidation	

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8.	ORS (Oral Rehydration Salt) is primarily used in: a) Fever treatment b) Cardiac arrest c) Diarrhea and dehydration d) Anemia	
9.	Sodium chloride is mainly used in: a) Antacid preparations b) Fluid and electrolyte replacement c) Dental caries prevention d) Buffer solutions	
10.	Fluoride prevents dental caries by: a) Increasing enamel solubility b) Decreasing calcium absorption c) Increasing acid production d) Enhancing enamel resistance and remineralization	

Section B

Short Questions: Attempt any two **2x5 = 10 marks**

SN	QUESTIONS	CO's
1.	Write a short note on the history and significance of Indian Pharmacopoeia.	CO1
2.	Differentiate between hypotonic, isotonic, and hypertonic solutions with examples.	CO2
3.	Explain the following: a) Sources of impurities b) Buffer equations and buffer capacity	CO1 & CO2

Section C

Long questions: Attempt any one **1x10 = 10 marks**

SN	QUESTIONS	CO's
1.	Describe the principle, reagents, procedure, and significance of the limit test for chloride and sulphate.	CO1
2.	Give the short note on the following: a) Major physiological ions and their functions b) Role of fluoride in the treatment of dental caries	CO2