Seat No.: _____ Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

Pharm D – 1st Year • EXAMINATION – SUMMER • 2015

Subject Code: 818805 **Date: 30-05-2015**

Subject Name: Pharmaceutical Inorganic Chemistry

Time: 10.30 am – 01.30 pm **Total Marks: 70**

Instructions:

1. **Attempt any five questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1	**(a)**	Explain theory of acid-base indicators.	**06**
	(b)	Enlist sources of impurities in pharmaceuticals. Why citric acid is used in limit test of iron.	**04**
	(c)	What are intracellular electrolytes? Give composition of oral dehydration salt.	**04**
Q.2	**(a)**	Define the following terms and give name and structure of any one compound used as 1. Sclerosing agent 2. Emetics 3. Haematinics	**06**
	(b)	Give comments on following (any two) 1 KI is added in preparation of Iodine solution. 2 Starch indicator should be added near the end point of iodine titration. 3 Nitrobenzene is used in Volhard's method.	**04**
	(c)	Explain the test for rejection of data and methods of expressing precision.	**04**
Q.3	**(a)**	Give methods of preparation and use of aluminium hydroxide gel and milk of magnesia.	**06**
	(b)	Determine the K_{sp} of silver bromide, given that its molar solubility is 5.71 x 10^{-7} moles per liter.	**04**
	(c)	Explain the terms 1. Acidifying agents 2. Cathartics 3. Anesthetics 4. Accuracy	**04**
Q.4	**(a)**	Give a brief note on solubility product and antimicrobial agents.	**06**
	(b)	Explain importance of following as Pharmaceutical aid (any two) 1. Preservatives 2. Diluents 3. Filter aids	**04**
	(c)	Differentiate 1. Iodometry and Iodimetry .2. Poison and Antidote	**04**
Q.5	**(a)**	What is hydrolysis? Derive the equation to find out the pH of aqueous Solution of CH_3COONa	**06**
	(b)	Explain in detail Mohr's method for detection of halogen	**04**
	(c)	How Internal redox Indicator works? Explain in detail.	**04**
Q. 6	**(a)**	What are Radiopharmaceuticals? Give uses of Iron [^{59}Fe], Na ^{131}I and Cynocobalamine [^{57}Co].	**06**
	(b)	Write note on solvent and titrant for weak acid & weak base substance in non-aqueous titration	**04**
	(c)	Explain in detail Pharmaceutically important transition elements compounds.	**04**
Q.7	**(a)**	Enlist different types of EDTA titration and explain with example.	**06**
	(b)	Write role of fluoride in dental products and give preparation, assay and uses of NaF.	**04**
	(c)	Calculate buffer capacity of a solution composed from 0.2 M acetic acid (Ka= 1.75×10^{-5}) and 0.2 M sodium acetate at pH = 4.76.	**04**

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