Seat No.: _____ Enrolment No._____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – I • EXAMINATION – SUMMER • 2014

Subject Code: 2210002 Date: 09-06-2014

Subject Name: Pharmaceutical Chemistry-I (Inorganic Chemistry)

Time: 02:30 pm - 05:30 pm Total Marks: 80

Instructions:

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

Q.1	(a)	Define and explain following terms. 1. Antacids 2. Emetics 3. Antidote 4. Bactericidal 5. Preservative 6. Glidants	**06**
	(b)	Define and classify gastrointestinal agents with suitable examples.	**05**
	(c)	Define antioxidants. Write down method of preparation, assay and uses of sodiumthiosulfate.	**05**
Q.2	(a)	Give synonyms, chemical formula and uses of following. 1. Common salt 2. Rochelle salt 3. Baking soda 4. Precipitated chalk	**06**
	(b)	Discuss Oral Rehydration Salt.	**05**
	(c)	Draw a neat and labeled diagram of Gutzeit apparatus.	**05**
Q.3	(a)	Comment on the following statements. 1) Equivalent weight of $KMnO_4$ changes with the media. 2) Glycerin is added in the assay of boric acid. 3) KI is added in aqueous iodine solution. 4) Aqueous solution of borax is alkaline.	**06**
	(b)	Explain assay procedure for boric acid potassium permanganate.	**05**
	(c)	Explain importance of radiopharmaceuticals.	**05**
Q.4	(a)	Explain principle involved in limit test of iron.	**06**
	(b)	Explain various acid-base theories.	**05**
	(c)	Explain precautions that should be taken while handling radiopharmaceuticals.	**05**
Q.5	(a)	Write short-note- 1. Inhalants 2. Complexing agents	**06**
	(b)	Explain ion exchange technique for softening of hard water.	**05**
	(c)	Discuss importance of calcium in biological preparations.	**05**
Q. 6	(a)	Clarify: Water for injection, sterile water for injection, purified water for injection.	**06**
	(b)	Write a short note on ringer lactate solution for injection.	**05**
	(c)	Explain preparation and uses of NH_4Cl and aluminium hydroxide gel.	**05**
Q.7	(a)	Write preparation and assay of the following. 1. Calcium gluconate 2. Ferric ammonium citrate	**06**
	(b)	Write role of fluoride in dental products and give preparation, assay and uses of NaF.	**05**
	(c)	Enlist sources of impurities in pharmaceuticals and discuss method or process used in manufacturing in detail.	**05**

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