

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. **06**
 1. Antacids 2. Emetics 3. Antidote 4. Bactericidal 5. Preservative 6. Glidants
- (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. **06**
 1. Common salt 2. Rochelle salt 3. Baking soda 4. Precipitated chalk
- (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. **06**
 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.
- (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- **06**
 1. Inhalants 2. Complexing agents
- (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. **06**
 1. Calcium gluconate 2. Ferric ammonium citrate
- (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**
