

**GUJARAT TECHNOLOGICAL UNIVERSITY****B. Pharm. - SEMESTER- I • EXAMINATION – SUMMER-2016****Subject Code:2210002****Date: 25/05/2016****Subject Name: Pharma. 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) Answer the following comments: **06**  
 1) Ammonia in limit test for iron.  
 2) Citric acid in limit test for iron.  
 3) Hydrogen sulphide in limit test for heavy metal.  
 4) Glycerin is added in the assay of boric acid.
- (b) Discuss various sources of impurities in pharmaceutical substances. **05**
- (c) Draw a neat and labeled diagram of Gutzeit apparatus. **05**
- Q.2** (a) Explain various acid-base theories. **06**
- (b) Give a note on sodium bicarbonate as an electrolyte used in acid-base therapy. **05**
- (c) Write short-note on Water for injection, sterile water for injection, purified water for injection. **05**
- Q.3** (a) Define and classify gastrointestinal agents with suitable examples. **06**
- (b) Define major intra and extra cellular electrolytes. Write a note on physiological acid base balance. **05**
- (c) Give a brief account for any one saline cathartic. **05**
- Q.4** (a) Discuss anyone iron containing compound as haematinic. **06**
- (b) Describe role of Kaolin. **05**
- (c) Write preparation and assay of the following. 1) NH<sub>4</sub>Cl 2) Calcium gluconate. **05**
- Q.5** (a) Give the synonym of the following compounds. **06**  
 1) Gypsum  
 2) Epsom Salt  
 3) Bleaching powder  
 4) Lugol's solution
- (b) Write a note on respiratory stimulants. **05**
- (c) Discuss the physiological role of oxygen. Describe its method of preparation, properties, storage conditions and uses. **05**
- Q.6** (a) Discuss importance of calcium in biological preparations. **06**
- (b) Classify dental products with suitable examples. Give a brief account of zinc chloride as a dental product. **05**
- (c) Discuss complexing agents used in therapy. **05**
- Q.7** (a) Define following terms: **06**  
 1) Anti-oxidants 2) Protective 3) Astringents 4) Anti-dotes 5) Antacids  
 6) limit test
- (b) Give applications of radioisotopes. **05**
- (c) Write a note on 'handling and storage of radioactive materials'. **05**