

GUJARAT TECHNOLOGICAL UNIVERSITY
B.Ph. - SEMESTER-I • EXAMINATION – SUMMER -2018

Subject Code: BP104TP**Date: 10/05/2018****Subject Name: Pharmaceutical Inorganic Chemistry****Time: 02:30pm to 05:30pm****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 Impurities. Enlist the sources of the impurities in Pharmaceuticals and discuss the manufacturing hazards as source of impurity. **06**
- (b) What do you understand by limit test? Give its importance in pharmacy. Explain principle and procedure for limit test for Iron. **05**
- (c) Draw a neat and labeled diagram of Gutzeit apparatus. **05**
- Q.2** (a) Explain the various theories of acids and bases. Write preparation, reactions and assay principle of boric acid. **06**
- (b) Discuss the factors affecting selection of Pharmaceutical buffers and name any two physiological buffers and two analytical buffers. **05**
- (c) Define Following terms: **05**
 i) Antacids ii) acidifiers iii) Expectorants iv) cathartics v) Haematinics
- Q.3** (a) Write a note on Oral Rehydration Salt (ORS). **06**
- (b) What are intra and extra cellular electrolytes? What is meant by oral rehydration therapy? **05**
- (c) Discuss the biological significance of calcium. **05**
- Q.4** (a) What are Radiopharmaceuticals ? Write down various clinical applications of radiopharmaceuticals. **06**
- (b) What is G.M. Counter? Give a brief account on therapeutic and diagnostic applications of inorganic radiopharmaceuticals. **05**
- (c) Write a short note on Anticaries agents. **05**
- Q.5** (a) Explain briefly the characteristic of Ideal antacid. Give preparations, properties, and uses of aluminium Hydrochloride Gel. **06**
- (b) Give a brief account for any one saline cathartic. **05**
- (c) Write a brief note on expectorants and emetics. **05**
- Q. 6** (a) What do you understand by antibacterial agent? Explain its mechanism. Give preparation, properties, assay principle and uses of Povidone iodine. **06**
- (b) Write a short note on activated charcoal OR Sodium Thiosulphate. **05**
- (c) Write about various haematinic preparations **05**
- Q.7** Justify following comments **10**
 (i) The pharmacopoeia do not prescribe the numerical values for the limit test.
 (ii) Equivalent weight of $KMnO_4$ changes with the media.
 (iii) Aqueous Ammonia is added in limit test of lead.
 (iv) Potassium iodide is added in aqueous iodine solution.
- (b) Give the synonyms and uses of the following: (Any Three) **06**
 i) Green Vitriol ii) Rochelle salt iii) Chlorinated lime iv) Muramic acid