

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.

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|------|-----|--|----|
| 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:
i)Antacids ii) acidifiers iii) Expectorants iv) cathartics v) Haematinics | 05 |
| 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 | |