

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – I (OLD Syllabus) • EXAMINATION – SUMMER • 2015

Subject Code: 210003

Date: 27-05-2015

Subject Name: Pharmaceutical Chemistry – I

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.

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|-------------|-----|---|-----------|
| Q.1 | (a) | Classify the sources of impurities. Explain instability of the product in pharmaceuticals | 06 |
| | (b) | Define pharmacopoeia. Explain official monograph for pharmaceutical substance. | 05 |
| | (c) | Writes a detailed note on limit test for iron and Gutzeit apparatus. | 05 |
| Q.2 | (a) | Explain Bronsted-Lowery acid-base theory. Explain water for injection, sterile water for injection and purified water I.P. | 06 |
| | (b) | Classify inorganic compounds acting as gastrointestinal agents giving examples. Give an account on cathartics. | 05 |
| | (c) | Explains ideal antacid. Give preparations, properties, and uses of aluminum Hydrochloride Gel. | 05 |
| Q.3 | (a) | What are intra and extra cellular electrolytes? What is meant by oral rehydration therapy? | 06 |
| | (b) | Enumerate official compounds of Iron. Give preparation and uses of ferrous gluconate. | 05 |
| | (c) | Give an account on biochemical importance of iron. | 05 |
| Q.4 | (a) | Define and classify topical agents with suitable examples. Give preparation, properties, uses and assay principle of Zinc oxide. | 06 |
| | (b) | Write short notes on: Respiratory stimulants. | 05 |
| | (c) | Write the storage condition.
i) Oxygen ii) Phosphoric acid iii) Silver Nitrate | 05 |
| Q.5 | (a) | Write a note on chelating agents used in therapy. | 06 |
| | (b) | Write a note on Dental Products. | 05 |
| | (c) | Write a note on dentifrices. | 05 |
| Q. 6 | (a) | Define and explain pharmaceutical aids & antioxidants. Explain preparation, properties and uses of sodium thiosulphate. | 06 |
| | (b) | Define and explain antidote used in pharmacy. Enumerate types of antidote with example. Give preparation, properties and uses of any one. | 05 |
| | (c) | Explain the following terms
i) Preservative ii) Expectorant iii) Deliquescent
iv) Adsorbents v) Excipients | 05 |
| Q.7 | (a) | What are Radiopharmaceuticals? Give uses of Iron [⁵⁹ Fe], Cynocobalamine [⁵⁷ Co]. | 06 |
| | (b) | Write a note on GM counters. Give preparation, properties and uses of barium sulphate. | 05 |
| | (c) | Write down various clinical applications of radiopharmaceuticals. | 05 |
