

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

B. Pharm. – SEMESTER – I • EXAMINATION – WINTER 2013

Subject Code: 210003

Date: 01-01-2014

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.

- | | | | |
|-------------|-----|--|-----------|
| Q.1 | (a) | Define limit test. Give the principle, chemical reaction involved in the limit test for Sulphate. | 06 |
| | (b) | Discuss the sources of impurities in pharmaceuticals. | 05 |
| | (c) | Define buffer. Give the mechanism of action of buffer. | 05 |
| Q.2 | (a) | Define topical agents. Classify them with suitable examples. Give the preparation of any two topical agents. | 06 |
| | (b) | What are antacids? Give an ideal properties of antacids | 05 |
| | (c) | Give the preparation, properties, uses and storage conditions of Ferrous sulphate, Baking soda and Ammonium Chloride. | 05 |
| Q.3 | (a) | Write a short note on: (i) Expectorants (ii) G.M.Counter. | 06 |
| | (b) | Give the assay of Hydrogen peroxide and Boric acid. | 05 |
| | (c) | Explain the role of Sodium and calcium in body. | 05 |
| Q.4 | (a) | What are radio pharmaceuticals. Enumerate the various units of radioactivity. What precautions are to be taken in handling and storage of radioactive materials. | 06 |
| | (b) | Why antioxidants are used in pharmacy? Give the mechanism of its action. | 05 |
| | (c) | Write biochemical importance of Oxygen and Carbon dioxide in body. | 05 |
| Q.5 | (a) | Write a short note on: (i) Saline cathartics (ii) ORS (iii) Hematinics | 06 |
| | (b) | Define antidotes. Classify them with examples. Outline the role of activated charcoal in poisoning. | 05 |
| | (c) | What is dental carries. Explain the role of various compounds used in dental diseases. | 05 |
| Q. 6 | (a) | Discuss the limit test of arsenic in detail. | 06 |
| | (b) | Discuss the Lowry-bronsted and Lewis concepts of acids and base briefly. | 05 |
| | (c) | Explain the following terms: (i) Filter aids (ii) Sclerosing agents (iii) Trace elements (iv) Anesthetics (v) Chelating agents. | 05 |
| Q.7 | (a) | Give the name of any compound used as : (i) Astringent (ii) Adsorbent (iii) Complexing agent (iv)Respiratory stimulant (v) Desensitizing agent (vi) antiseptic | 06 |
| | (b) | Discuss the various official preparations of iodine and iron. | 05 |
| | (c) | Write a short note on: (i) Emetics (ii) Physiological acid-base balance (iii) Sedatives | 05 |
