

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.

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

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