

**GUJARAT TECHNOLOGICAL UNIVERSITY****B.PHARM- SEM-I-EXAMINATION – JUNE 2012****Subject code: 210003****Date: 26/06/2012****Subject Name: Pharm Chemistry-I****Time: 10:30 am – 01:30 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**
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|-----|--|-----------|
| (a) | Define the term 'limit test. Discuss limit test for Arsenic in detail.                                       | <b>06</b> |
| (b) | Discuss various sources of impurities in pharmaceutical substances.  | <b>05</b> |
| (c) | Define the term antidote. Which antidotes are used for cyanide poisoning? Explain their mechanism of action. | <b>05</b> |
- Q.2**
- |     |  |           |
|-----|--|-----------|
| (a) | What is G.M. Counter? Give a brief account on therapeutic and diagnostic applications of inorganic radiopharmaceuticals. | <b>06</b> |
| (b) | What is the importance of trace elements in our body? Discuss any one iron containing compound as haematinic.            | <b>05</b> |
| (c) | Give synonym of followings.  | <b>05</b> |
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|---------------------------------|----------------------------|
| (i) MgSO <sub>4</sub>           | (vi) CaCO <sub>3</sub>     |
| (ii) Ringer's solution          | (vii) Weak iodine solution |
| (iii) Potassium sodium tartrate | (viii) Sodium sulphate     |
| (iv) Caustic soda               | (ix) Sodium bicarbonate    |
| (v) Boric acid                  | (x) Laughing gas           |
- Q.3**
- |     |   |           |
|-----|---|-----------|
| (a) | Discuss the physiological role of oxygen and describe its method of preparation, properties, storage conditions and uses. | <b>06</b> |
| (b) | Write a note on 'handling and storage of radioactive materials'.  | <b>05</b> |
| (c) | Discuss complexing agents used in therapy.  | <b>05</b> |
- Q.4**
- |     |  |           |
|-----|--|-----------|
| (a) | Define antacids. Describe Al(OH) <sub>3</sub> gel as an antacid.                               | <b>06</b> |
| (b) | Classify antimicrobial agents. Give a brief account of H <sub>2</sub> O <sub>2</sub> solution. | <b>05</b> |
| (c) | Justify the importance of:   | <b>05</b> |
- |       |  |           |
|-------|--|-----------|
| (i)   | Citric acid in limit test for iron.                        | <b>05</b> |
| (ii)  | Dilute HNO <sub>3</sub> in limit test for chloride.        |           |
| (iii) | K <sub>2</sub> SO <sub>4</sub> in limit test for sulphate. |           |
| (iv)  | Hydrogen sulphide in limit test for heavy metal.           |           |
| (v)   | Ammonia in limit test for iron.                            |           |
- Q.5**
- |     |   |           |
|-----|---|-----------|
| (a) | Classify dental products with suitable examples. Discuss the role of fluoride in preventing tooth carries. Give a brief account of zinc chloride as a dental product. | <b>06</b> |
| (b) | Give a brief account for any one saline cathartic.  | <b>05</b> |
| (c) | Write a brief note on expectorants and emetics.   | <b>05</b> |
- Q.6**
- |     |   |           |
|-----|---|-----------|
| (a) | Give preparations and uses and storage condition of followings. | <b>06</b> |
|-----|---|-----------|
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|------|------------|
| (i)  | Calamine   |
| (ii) | Boric acid |
- |     |   |           |
|-----|---|-----------|
| (b) | Write a note on electrolyte used in replacement therapy.          | <b>05</b> |
| (c) | Discuss physiological acid-base balance and give a note on sodium | <b>05</b> |

bicarbonate as an electrolyte used in acid-base therapy.

- Q.7**
- (a) Give method of preparation and uses for the following compounds. **06**
- (i) Bismuth subcarbonate
  - (ii) Ammonium carbonate
  - (iii) Precipitated chalk
- (b) Define the following terms and give two examples of each. **05**
- (i) Sclerosing agent
  - (ii) Filter-aids
  - (iii) Adsorbants
  - (iv) Suspending agents
  - (v) Preservatives.
- (c) Write a note on- combinations of antacid preparations. **05**
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