

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. | 06 |
| (b) | Discuss various sources of impurities in pharmaceutical substances. | 05 |
| (c) | Define the term antidote. Which antidotes are used for cyanide poisoning? Explain their mechanism of action. | 05 |
- Q.2**
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|-----|--|-----------|
| (a) | What is G.M. Counter? Give a brief account on therapeutic and diagnostic applications of inorganic radiopharmaceuticals. | 06 |
| (b) | What is the importance of trace elements in our body? Discuss any one iron containing compound as haematinic. | 05 |
| (c) | Give synonym of followings. | 05 |
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| (i) MgSO ₄ | (vi) CaCO ₃ |
| (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**
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|-----|---|-----------|
| (a) | Discuss the physiological role of oxygen and describe its method of preparation, properties, storage conditions and uses. | 06 |
| (b) | Write a note on 'handling and storage of radioactive materials'. | 05 |
| (c) | Discuss complexing agents used in therapy. | 05 |
- Q.4**
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|-----|--|-----------|
| (a) | Define antacids. Describe Al(OH) ₃ gel as an antacid. | 06 |
| (b) | Classify antimicrobial agents. Give a brief account of H ₂ O ₂ solution. | 05 |
| (c) | Justify the importance of: | 05 |
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|-------|--|-----------|
| (i) | Citric acid in limit test for iron. | 05 |
| (ii) | Dilute HNO ₃ in limit test for chloride. | |
| (iii) | K ₂ SO ₄ in limit test for sulphate. | |
| (iv) | Hydrogen sulphide in limit test for heavy metal. | |
| (v) | Ammonia in limit test for iron. | |
- Q.5**
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|-----|---|-----------|
| (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. | 06 |
| (b) | Give a brief account for any one saline cathartic. | 05 |
| (c) | Write a brief note on expectorants and emetics. | 05 |
- Q.6**
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|-----|---|-----------|
| (a) | Give preparations and uses and storage condition of followings. | 06 |
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| (i) | Calamine |
| (ii) | Boric acid |
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| (b) | Write a note on electrolyte used in replacement therapy. | 05 |
| (c) | Discuss physiological acid-base balance and give a note on sodium | 05 |

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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