

# UKA TARSADIA UNIVERSITY

B.Pharm 1st Semester Examination - June 2012

030020102- Pharmaceutical Chemistry – I

Time: 3 Hours

Max. Marks: 70

## Instructions:

1. Attempt all questions.
2. Write each section in a separate answer book.
3. Make suitable assumptions wherever necessary.
4. Figures to the right indicate full marks.
5. Draw diagrams/figures whenever necessary.

## Section-I

### Q-1 (A) Answer the following:

[07]

- I) Give the reaction involved in limit test for Chloride.
- II) Define Respiratory stimulant.
- III) What is meant by Official Compound?
- IV) Comment: Aqueous ammonia is added in limit test of lead.
- V) Give synonyms of Caustic Soda and Baking Soda.
- VI) Comment: Aqueous solution of borax is alkaline.
- VII) What is impurity?

### Q-1 (B) Answer the following in brief: (Any 4)

[08]

- I) Give the characteristic of an ideal antacid.
- II) Explain the terms laxative and purgatives.
- III) Give the important uses of nitrous oxide.
- IV) Give chemical reaction involved in limit test of Iron.
- V) Write method of preparation and uses of sodium carbonate.
- VI) Explain the storage conditions for oxygen.

### Q-2 Answer the following:

[10]

- A) Explain the various sources of impurities present in inorganic pharmaceutical substance.

**OR**

- A) Give the preparation of Milk of Magnesia IP,  $\text{CaCO}_3$ ,  $\text{Al(OH)}_3$  gel and Light MgO.  
B) Differentiate between purified water IP, water for injection IP and sterile water for injection IP.

**OR**

- B) Explain the various theories of acids and bases. Write preparation, reaction and uses of boric acid.

### Q-3 Answer the following in detail. (Any 2)

[10]

- A) Draw a neat and labeled diagram of Gutzeit apparatus.
- B) Classify various gastro-intestinal agents with examples.
- C) Define buffer solution and give a brief note on Physiological Buffers.

## Section-2

**Q-4 (A) Define the following terms. [07]**

- I) Dentifrices
- II) Astringent
- III) Emetic
- IV) Sclerosing agent
- V) Antioxidant
- VI) REM
- VII) Chelating agent

**Q-4 (B) Write method of preparation and uses of following compounds: (Any 4) [08]**

- I) Povidone-iodine
- II) Sodium fluoride
- III) Hydrogen peroxide
- IV) Potassium iodide
- V) Sodium thiosulfate
- VI) Silver nitrate

**Q-5 Answer the following: [10]**

A) Define and classify antidotes. Explain importance of activated charcoal as antidote.

**OR**

A) Explain the importance of inorganic adsorbents, diluents and filter aids in pharmaceutical industry.

B) Define the term radio-opaque contrast media. Describe preparation, properties and uses of barium sulphate.

**OR**

B) Differentiate between  $\alpha$ ,  $\beta$  and  $\gamma$  radiations.

**Q-6 Answer the following in detail. (Any 2) [10]**

A) Define and classify topical agents. Write method of preparation, properties and uses of potassium permanganate.

B) Explain the term radiopharmaceuticals with examples. Write applications of radiopharmaceuticals.

C) Enumerate the official compounds of iron and write the preparation, properties and uses of any one of them.