

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, CaCO_3 , 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 α , β and γ 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.