0806

**11920**

**3 Hours / 80 Marks** Seat No. | | | | | | | | |

*Instructions* – (1) All Questions are *Compulsory.*

(2) Answer each next main Question on a new page.

(3) Illustrate your answers with neat sketches wherever necessary.

(4) Figures to the right indicate full marks.

(5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

**Marks**

**1. Attempt any FIVE of the following:** **20**

a) Define the terms with examples

(i) Lewis Acid and Lewis Base

(ii) Respiratory stimulants and Inhalants.

b) Give synonyms and molecular formula for

(i) Sodium hydroxide

(ii) Chlorinated lime

c) Explain why glycerin is used in the assay of Boric acid. Give reactions involved.

d) Define and classify "Topical Agents" with examples.

e) Define "Astringents". Mention their uses.

f) Classify antacids with example. Write properties of ideal antacids.

g) Define expectorants. Write mechanism of action of expectorants with example.

h) Discuss principle involved in limit test for iron with reactions.

P.T.O.

**Marks**

**2. Attempt any THREE of the following:** **12**

a) Define achlorhydria. Give properties, uses and molecular formula of agent used to treat achlorhydria.

b) Define the following terms

(i) Antioxidants

(ii) Anticaries Agent

(iii) Emetics

(iv) Dental Fluorosis

c) Explain principle involved in the limit test for lead IP with reactions.

d) Give properties and uses of calcium carbonate and hydrogen peroxide.

e) Define Antimicrobial agents and explain their mechanism of action. Give properties of Potassium Permanganate.

**3. Attempt any THREE of the following:** **12**

a) Define and explain mechanism of antioxidants. Give properties and uses of sodium thiosulphate.

b) Define with examples

(i) Radio Isotopes

(ii) Protectives and Adsorbents

(iii) Buffers

(iv) Radiopaque constrast media

c) Give two identification tests for

(i) Chloride ion

(ii) Calcium ion.

d) Discuss the biological effects of radiations on human body.

e) Define cathartics. Classify with examples. Give synonym and molecular formula of Sodium Potassium tartarate.

**Marks**

**4. Attempt any THREE of the following:** **12**

a) Give storage and labelling for
   (i) Oxygen
   (ii) Carbondioxide

b) Draw a well-labelled, neat diagram of Gutzeit - Apparatus.

c) Classify Gastrointestinal Agents with examples.

d) Name four devices used for measurement of radiations. Explain GM counter.

e) Define and classify antidote with examples. Name two antidotes used in cyanide poisoning.

**5. Attempt any THREE of the following:** **12**

a) Explain "Physiological acid-base balance."

b) Define impurity and explain its effect on pharmaceutical preparations.

c) Discuss Arrhenious theory of acids and bases with examples. Write uses of Boric acid and Calcium hydroxide.

d) State the reactions and explain the principle of assay of hydrogen peroxide or ferrous sulphate.

e) Give properties, uses, storage and labelling of Nitrous oxide.

**6. Attempt any THREE of the following:** **12**

a) Explain the importance of Electrolyte combination therapy and ORS mixture and give formulas recommended by WHO and UNICEF.

b) Define and classify Dental products. Give the role of fluorides in dental caries.

c) Write the molecular formula and uses of following.
   (i) Ferrous Sulphate
   (ii) Magnesium Sulphate

d) Write the principle and reaction involved in the limit test for chloride IP.

e) Exaplain Lowry-Bronsted theory with examples. Discuss advantages of this theory over other acid-base theories.