0806

11718

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) Assume suitable data, if necessary.

(6) Use of Non-programmable Electronic Pocket Calculator is permissible.

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

Marks

1. Attempt any EIGHT of the following: **16**

a) Explain the following terms. (Any 2)

(i) Achlorhydria

(ii) Emetics

(iii) Astringents

b) Write chemical incompatibilities of the following. (Any 2)

(i) Hypophosphorus acid

(ii) Sulphurdioxide

(iii) Ferrous Sulphate

c) Give synonyms for the following. (Any2)

(i) Magnesium Sulphate

(ii) Sodium Potassium Tartarate

(iii) Precipitated Sulphur

Marks

d) Write molecular formula for the following. (Any 2)

(i) Sodium Metabisulphite

(ii) Calcium Carbonate

(iii) Stannous Fluoride

e) Discuss uses of the following compounds. (Any 2)

(i) Sodium Nitrite

(ii) Sodium Acetate

(iii) Sodium Thiosulphate

f) Discuss the uses of boric acid. Discuss the effect of heat on boric acid.

g) Write properties and uses of calcium hydroxide.

h) Explain the importance of Glycerine in the assay of boric acid.

i) Write properties, storage and handling of NaOH.

j) Classify antacids with examples. Write two properties of aluminium hydroxide gel.

k) Give two identification test for each ion :-

(i) Chloride

(ii) Sulphate

l) Write uses and storages and labelling of Oxygen.

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

a) Define Antacids. Explain why combination antacid therapy is preferred over single antacid therapy with examples.

b) Explain Protectives and Adsorbents. Give properties and uses of Kaolin.

c) Name three official compounds of iron along with their molecular formula.

d) Explain the principle along with reactions involved in limit test for sulphate IP.

e) Discuss biological effects of Radiations.

f) Explain the term 'Inhalants' Mention uses and properties of carbondioxide.

Marks

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

a) Define antioxidants. Discuss properties required of an ideal antioxidant.

b) Define the following terms with examples.

(i) Expectorants

(ii) Antidotes

c) Explain properties, uses and storage conditions of hydrogen peroxide.

d) Discuss the role of calcium cation in the body.

e) Explain importance of 'Electrolyte Combination Therapy' with special reference to ORS.

f) Discuss the properties and uses of Ammonium Chloride.

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

a) Discuss the effects of impurities present in the pharmaceuticals.

b) Classify antidotes based on mechanism of action. Mention the antidotes for cyanide poison.

c) Define mEq/L. Calculate the mEq. of sodium chloride in one litre of 0.90% w/v solution.

d) Enlist the various units used to measure radioactivity.

e) Explain the importance of use of the following reagents :-

(i) Thioglycollic acid in iron limit test IP

(ii) Bariumchloride in sulphate limit test IP.

(iii) Mercuric Chloride Paper in Arsenic Limit Test IP.

f) Define buffers. Explain mechanism of action of buffers.

Marks

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

a) Which salt is commonly used in Sodium Replacement Therapy? Mention various preparations containing it.

b) Discuss the various handling and storage conditions for Radioisotopes.

c) Discuss Lowry-Bronsted Theory for acid and base with examples. Explain its advantages over Arrhenius Acid-Base theory.

d) Mention the synonyms and uses of :-

(i) Hydrochloric acid

(ii) Sodium bicarbonate

(iii) Zinc Sulphate

e) Enlist various Iodine preparations. Explain role of Iodine in body.

f) Explain the theory involved in the assay of hydrogen peroxide with reactions.

6. Attempt any FOUR of the following: **16**

a) Enlist the various sources of impurities found in pharmaceutical substances. Describe any two.

b) Define 'Topical Agents'. Classify them with examples.

c) Discuss Arsenic Limit Test IP along with the apparatus used and reactions involved.

d) Enlist the major anions and cations found in body fluids. Explain how physiological acid-base balance is maintained.

e) Classify the G.I.T. agents with examples. Discuss uses and properties of Bismuth subcarbonate.

f) Explain Radio-Opaque Contrast Media. Discuss Synonym, Properties and Uses of Barium Sulphate.

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