

0806

21222

3 Hours / 80 Marks

Seat No.

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15 minutes extra for each hour

- 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) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (6) 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 Arrhenius acids and bases with examples and discuss the limitations of this theory.
 - b) Explain the mechanism of action of antioxidants and write the factors to be considered for selection of suitable antioxidants.
 - c) Explain with examples Antacids Combination Therapy.
 - d) Explain principle involved in the limit test for Iron with suitable reactions.
 - e) Describe mechanism of action of anti-microbial agents.
 - f) Write properties and uses of :
 - (i) Talc
 - (ii) Selenium sulphide

P.T.O.

- g) Define Antidote and classify them with examples.
- h) Name any four official compounds of Iron and write their chemical formulae.

2. Attempt any THREE of the following: 12

- a) Explain GIT Protectives and Adsorbents. Give properties and uses of Bismuth subcarbonate.
- b) Discuss the importance of Quality Control in Pharmacy.
- c) Enlist various major intra and extra cellular electrolytes occurring in the human body. Describe the physiological role of potassium ion with disorders.
- d) Explain how dental caries are formed and give role of fluoride in prevention of dental caries.
- e) Define respiratory stimulants. Write formula, properties and uses of Ammonium chloride.

3. Attempt any THREE of the following: 12

- a) State uses and storage condition of :
 - (i) Oxygen
 - (ii) Carbon dioxide
- b) Define the following terms :
 - (i) Astringent
 - (ii) Achlorhydria
 - (iii) Metabolic acidosis
 - (iv) Desensitising agent
- c) Give formula, properties and uses of silicone polymers.
- d) Explain electrolyte combination therapy. Give a formula of oral rehydration salt mixture recommended by WHO and UNICEF.
- e) Draw a well labelled diagram of Gutzeit apparatus.

4. Attempt any THREE of the following: 12

- a) State the formula, synonym, properties and uses of calcium hydroxide.
- b) Describe the role of calcium or Iodine in the body.
- c) Classify cathartics with suitable examples.
- d) Explain radio opaque contrast media. Give the properties and uses of Barium sulphate
- e) Mention the molecular formula and synonyms of :
 - (i) Magnesium sulphate
 - (ii) Antimony potassium tartrate

5. Attempt any THREE of the following: 12

- a) Give the properties and storage condition of hydrogen peroxide and potassium permanganate.
- b) Define Inhalant. Explain role of oxygen in human body.
- c) Enlist various units used for measuring radioactivity. Explain the construction and working of Geiger - Muller counter.
- d) State synonym, formula, properties and uses of Boric acid.
- e) Explain how physiological acid - base balance of the body is maintained.

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

- a) Name the various sources of impurities present in pharmaceutical substances. Explain any two.
 - b) Define Antioxidants. Write formula, properties and uses of sodium thiosulphate.
 - c) Define Radioisotopes and write any three applications of radioisotopes.
 - d) Write the properties and uses of :
 - (i) Zinc Chloride
 - (ii) Potassium iodide
 - e) Write two identification tests for the following ions/radical (Any two)
 - (i) Calcium
 - (ii) Ferrous
 - (iii) Acetates
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