

Question Paper

Exam Date & Time: 13-Jul-2023 (10:00 AM - 01:00 PM)



MANIPAL ACADEMY OF HIGHER EDUCATION

Instructions: Answer ALL questions.

Pharmaceutical Inorganic Chemistry [PCH 1.5T-S2]

Marks: 70

Duration: 180 mins.

Section A

Answer all the questions.

Long Answer Questions (3 x 10 marks = 30 marks)

- 1) What are primary standards and secondary standards? Give example. Enlist the ideal properties of primary standards. (5)
 - a)
 - b) Explain the principle of limit test for arsenic. Name and draw a neat, labelled diagram of apparatus used in arsenic limit test. (5)
- 2) Explain iodine titrations with suitable example (6)
 - a)
 - b) Explain the principle for the estimation of halogen acid salts of bases by non-aqueous titration. (4)
- 3) List the ideal properties of antacids. Give the synthesis of ammonium chloride (5)
 - a)
 - b) Explain the terms a) Antiseptics b) Disinfectant c) Germicides. Give example for each. Give the uses of Hydrogen peroxide and Iodine (5)

Section B

Answer all the questions.

Short Answer Questions (6 x 5 marks = 30 marks)

- 4) Explain the physiological role of iron. Give the physical properties and preparation of ferrous sulphate. (5)
- 5) Enlist the physiological functions of Electrolytes. Explain the mode of action of fluorides in dental products. (5)
- 6) Give the uses of radiopharmaceuticals. 3 marks
What are antidotes? Give two examples. 2 marks (5)
- 7) Define cathartics and give example for each class. What are the uses of Pharmaceutical aids? (5)
- 8) What is neutralisation titration curve? Give its distinct regions and uses (5)
- 9) What are indicators? Explain redox indicators and pH indicators. (5)

Section C

Answer all the questions.

Give Reasons for the Following (5 x 2 marks = 10 marks)

- 10) Why it is essential to use glycerol in the assay of boric acid? (2)

- 11) Why starch is added near the end point in iodometric titration? (2)
- 12) Potassium permanganate in acid solution is generally used in volumetric analysis but not in neutral and alkaline solution. (2)
- 13) Nitric acid and nitrobenzene are used in sodium chloride assay by argentometric (2)
- 14) Modification to be done in the limit test for chloride for potassium permanganate. (2)

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