Code No: BP104T **PCI** SET - 1

I B. Pharmacy I Semester Regular/Supplementary Examinations, February - 2020
PHARMACEUTICAL INORGANIC CHEMISTRY-I

Time: 3 hours Max. Marks: 75

Note: 1. Question paper consists of three parts (**Part-I**, **Part-II & Part-III)**
2. Answer ALL (Multiple Choice) Questions from **Part-I**
3. Answer any **TWO** Questions from **Part-II**
4. Answer any **SEVEN** Questions from **Part-III**

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PART –I

1. (i) The reagent responsible for opalescence in limit test for Chloride is (1M)
(a) $NaNO_3$ (b) $AgNO_3$ (c) KNO_3 (d) NH_4NO_3

(ii) The concentration of Sodium chloride in isotonic solution of Sodium chloride is (1M)
(a) 0.8%w/v (b) 0.9%w/v (c) 0.85%w/v (d) 0.96%w/v

(iii) The color of lead dithizonate is (1M)
(a) Violet (b) White (c) Yellow (d) Orange

(iv) Milk of Magnesia is a (1M)
(a) Systemic alkalizer (b) Gastric alkalizer
(c) Systemic acidifier (d) Gastric acidifier

(v) The substance used as an antidote in cyanide poisoning is (1M)
(a) Sodium thiosulphate (b) Sodium chloride
(c) Sodium bicarbonate (d) Sodium sulphate

(vi) The concentration of Sodium nitrite used in cyanide poisoning is (1M)
(a) 10ml of 3% solution (b) 100ml of 3% solution
(c) 1ml of 3% solution (d) 1000ml of 3% solution

(vii) Which of the following radioisotope is not used in the treatment of cancer? (1M)
(a) Cyanocobalamin (Co-57) (b) Cobalt (Co-60)
(c) Gold (Au -198) (d) Sodium Phosphate (P-32)

(viii) What is the edition of current Indian Pharmacopoeia? (1M)
(a) 8^{th} Edition (b) 6^{th} Edition (c) 5^{th} Edition (d) 3^{rd} Edition

(ix) Radioactivity is measured by (1M)
(a) Curie (b) Henry (c) Debry (d) Terry

(x) The following is an astringent (1M)
(a) Potash Alum (b) Potassium chloride
(c) Potassium citrate (d) Potassium carbonate

(xi) Ammonium chloride is an (1M)
(a) Emetic (b) Astringent (c) Expectorant (d) Antacid

(xii) Iodine preparations are (1M)
(a) Antimicrobials (b) Digestives (c) Antidotes (d) Antacids

(xiii) Anti caries agent is (1M)
(a) Sodium carbonate (b) Sodium chloride
(c) Sodium fluoride (d) Sodium citrate

(xiv) The principle involved in the assay of Ferrous sulphate is (1M)
(a) Redox (b) Precipitation (c) Complexometry (d) Alkalimtry

(xv) The indicator used in the assay of Ammonium chloride is (1M)
(a) phenolphthalein (b) Methyl orange (c) Methyl red (d) Ferroin
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(xvi) Potassium hydrogen phthalate is used as primary standard for standardization of (1M)
(a) HCl (b) NaOH (c) NaCl (d) KCl

(xvii) Phosphate buffer pH is (1M)
(a) 5.8-7.4 (b) 3.9-5.0 (c) 9.0-11.76 (d) 1.0-3.56

(xviii) The major extracellular cation is (1M)
(a) Potassium (b) Sodium (c) Magnesium (d) Calcium

(xix) A 0.6%w/v Sodium chloride solution is (1M)
(a) Isotonic (b) Hypotonic (c) Iso-Osmotic (d) Hypertonic

(xx) Arrhenius theory says acid is a substance that produces (1M)
(a) Hydrogen ions in solution (b) Hydroxyl ions in solution
(c) Salt in solution (d) Precipitation in solution

PART -II

2. a) What are the properties of β and γ radiations? (5M)

b) Explain the principle and reaction involved in the assay of Ammonium chloride. (5M)

3. a) Define and classify antimicrobials with examples. (5M)

b) Explain Bronsted and Lowry acid-base theory. (5M)

4. a) Define Buffer capacity and write the preparation of any one buffer. (5M)

b) Explain the principle and reaction present in the limit test for Arsenic. (5M)

PART -III

5. How is half life of a radiopharmaceutical calculated? (5M)

6. Explain the principle, procedure and reaction present in the assay of Ferrous sulphate. (5M)

7. Differentiate between buffers and isotonic solutions. (5M)

8. What are the uses of Indian Pharmacopoeia? (5M)

9. Explain the principle and reaction involved in the limit test for heavy metals. (5M)

10. Write the composition and uses of ORS. (5M)

11. Define limit tests. Explain why is it important to limit impurities in pharmaceutical substances. (5M)

12. Define intracellular anions and write their functions. (5M)

13. What are antacids? Write the preparation of Aluminum hydroxide gel. (5M)