

B. PHARM
(SEM I) THEORY EXAMINATION 2017-18
PHARMACEUTICAL INORGANIC CHEMISTRY

Time: 3 Hours

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Total Marks: 75

SECTION A

1. Attempt all questions as instructed**1 x20 = 20**

- a. Define the term impurity.
- b. Classify residual solvents.
- c. Draw the structure of lead-dithizone complex.
- d. In limit test for ironprevent the precipitate of iron as $\text{Fe}(\text{OH})_3\text{NH}_3$ solution.
- e. **Choose the correct answer**
 In Bronsted-Lowry concept acid is
 - a. proton donor
 - b. electron donor
 - c. proton acceptor
 - d. electron acceptor
- f.is major anion of ICF
- g. **State true or false**
 In White and Vincent method sodium chloride is used to adjust the pH.
- h.% sodium chloride solution is isotonic to plasma.
- i. Write down the formula of blue vitriol.
- j.assay method is used for ammonium chloride
- k.is an example of expectorant.
- l. Povidone iodine is used as
 - a. antiseptic
 - b. acidifying agent
 - c. protective
 - d. antioxidant
- m. The acid neutralizing capacity of an antacid plane at least
 - a. 5 meq. of HCl per dosage unit
 - b. 7 meq. of HCl per dosage unit
 - c. 8 meq. of HCl per dosage unit
 - d. 10 meq. of HCl per dosage unit
- n. Saline cathartics should not be given to
 - a. patients with cardiovascular disorders
 - b. patients with history of convulsions
 - c. patients with low sodium diet
 - d. patients with muscular disorders
- o. Which of the following is not a type of gas filled detector?
 (a) Proportional counter
 (b) G.M counter
 (c) Semiconductor detector
 (d) Ionization chamber
- p. Which is not used as antidote
 - a. Ferrous sulphate
 - b. Sodium thiosulphate
 - c. Activated charcoal
 - d. Sodium nitrite
- q. Which statement is correct regarding the handling and storage of radioactive materials?
 (a) Radioactive materials never be touched with hand
 (b) Sufficient protective clothing must be used while handling the materials
 (c) Kept in suitable labeled container
 (d) All of the above
- r. Sodium metabisulfite is used as

- a. expectorant
- b. diuretic
- c. systemic acidifier
- d. antioxidant
- s. Emetics
 - a. Stimulate CTZ centre
 - b. Stimulate respiratory tract
 - c. Does not stimulate gastric tract
 - d. Does not stimulate CTZ centre
- t. State true or false
Potassium iodide is used as expectorant

SECTION B

2. Attempt any *seven* questions of the following:

7 x 5 = 35

- a. Write in detail about the sources and types of impurities.
- b. Describe the limit test of iron.
- c. Explain the methods to adjust isotonicity.
- d. Write note on
 - i. Physiological Functions of sodium and potassium
 - ii. Zinc eugenol cement
- e. Write note on
 - i. Advantages of combination antacids
 - ii. Mechanism of antimicrobials
- f. Define
 - i. Haematinics
 - ii. Expectorants
- g. Write in detail about the pharmaceutical applications of radio-isotopes
- h. Discuss the assay methods for the following (any two)
 - i. Sodium chloride
 - ii. Ferrous sulphate
 - iii. Hydrogen peroxide
- i. Write notes on
 - i. Measurement of radioactivity
 - ii. History of Indian Pharmacopoeia

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SECTION C

3. Attempt any *two* questions of the following:

2 x 10 = 20

- a. Give General methods of preparation, properties and medicinal uses of any four compounds
 - i. Calcium gluconate
 - ii. Sodium fluoride
 - iii. Ammonium chloride
 - iv. Sodium bicarbonate
 - v. Bentonite
- b. Give General methods of preparation, properties and medicinal uses of any four compounds
 - i. Potassium permanganate
 - ii. Copper sulfate
 - iii. Ferrous gluconate
 - iv. Zinc sulphate
 - v. Sodium thiosulfate
- c. Write in detail the principle, apparatus and procedure for the limit test of Arsenic.