

**DOCTOR OF PHARMACY**  
**First Year Pharm. D. : SUMMER : 2022**  
**SUBJECT : PHARMACEUTICAL INORGANIC CHEMISTRY**

Day : Thursday  
Date : 19-05-2022

**S-5728-2022**

Time : 10:00 AM-01:00 PM  
Max. Marks : 70

**N.B:**

- 1) **Q.No.1** and **Q.No.5** are **COMPULSORY**. Out of remaining solve any **TWO** Questions from Section-I and Section-II
- 2) Answer to both the section should be written in **SEPARATE** answer book.
- 3) Figures to the right indicate **FULL** marks.

**SECTION-I**

- Q.1** A) Attempt any **FOUR** of the following. (08)
- i) What do you mean by Salt hydrolysis?
  - ii) Write biochemical role of Copper as essential and trace element.
  - iii) Give the principle and reaction involved in the Assay of Ferrous sulphate.
  - iv) List out the conditions that are responsible for Hyponatremia.
  - v) How will you prepare and standardized 0.1 N  $\text{KMnO}_4$  solution.
- B) What do you mean by Volumetric analysis? Give the classification of Volumetric analysis. (03)
- Q.2** Define the terms: Bacteriostatic and Germicidal agent. Discuss in detail different mechanisms of Antimicrobial action with suitable example. Add a note on Assay of Hydrogen peroxide. (12)
- Q.3** a) Discuss the various physiological buffers in detail for maintaining the physiological acid-base balance in our body. (07)
- b) Give the limit test for Iron in detail. (05)
- Q.4** Write short note on any **THREE** of the following. (12)
- a) Derive an equation for dissociation constant for weak acid
  - b) Properties of Radioisotopes
  - c) Limit test for Sulphate
  - d) Antidotes

**SECTION-II**

- Q.5** A) Attempt any **FOUR** of the following. (08)
- i) Give the preparation and standardization of 0.05 M Disodium EDTA solutions.
  - ii) Why particle size is important in Protectives? Give examples of Protectives.
  - iii) Give the classification of Acidifying agents with example.
  - iv) What are Anticaries agents? Explain the properties of Anticaries agents.
  - v) Give the properties, uses and storage conditions of Nitrous oxide gas.
- B) What do you mean by Precipitation titrations? Give the preparation and standardization of 0.1 M Silver nitrate. (03)
- Q.6** Compare between Mohr's method and Volhard's method for detection of end point in Precipitation titration. Add a note on Assay of Sodium Chloride injection. (12)
- Q.7** a) Give the classification of Antacids. Discuss in detail Antacid therapy. (07)
- b) Explain in detail Leveling and differentiating effect in non-aqueous titrations. (05)
- Q.8** Write short note on any **THREE** of the following. (12)
- a) Filtering medias in gravimetric analysis
  - b)  $\text{O}_2$  gas as a medicinal agents
  - c) Saline Cathartics
  - d) Antioxidants

\* \* \* \* \*