

Roll No. ....

BP-102T

**(MOCK EXAM-1)**  
**B.Pharm. (First Semester)**  
**End Semester Examination February , 2022**  
**Paper Second**  
**Pharmaceutical Analysis-I**

**Time: Three Hours]**

**[Maximum Marks: 80**

**Note: Part A: Multiple choice questions (20 x 1) (Attempt all 20 questions. Each question carries 01 mark)**

**Part B: Long Answers : Attempt any 2 questions out of 3 questions. Each carries 10 marks.**

**Part C: Short Answers : Attempt any 7 questions out of 9 questions. Each carries 5 marks**

**Part -A**

Q.1. Blank determination is one in which

- a. Sample is omitted                      b. Sample is taken                      c. a& b                      d. None

Q.2. How many significant figures are there in 2.4580

- a. 5                      b. 4                      c. 6                      d. None

Q.3. No. of gm equivalent weight of substance dissolved in 1 lit. of solution is

- a. Molarity                      b. Normality                      c. Molality                      d. Formality

Q.4. Example of primary standard is

- a.  $\text{KMnO}_4$                       b. Oxalic acid                      c. HCl                      d. NaOH

Q.5. According to which of the acid base theory, acid is a molecule or ion that accepts an  $e^-$  pair to form a covalent bond

- a. Bronsted&lowry                      b. Arrhenius                      c. Lewis                      d. None

Q.6. Balance between two opposing forces or actions is known as

- a. Buffer action                      b. Chemical Equilibrium                      c. common ion effect                      d. pH

Q.7. pH of  $[\text{H}^+] = 10^{-6}$  g ion/lit is

- a. 7                      b. 10                      c. 6                      d. 5

Q.8. Solution which possesses resistance to changes in  $\text{H}^+$  conc. upon addition of an acid or base is termed

- a. Buffer Solution                      b. Standard Solution                      c. Sample solution                      d. None

Q.9. To increase the selectivity of EDTA titrations \_\_\_\_\_ can be done.

- a. Use of masking agent                      b. Use of precipitating agent                      c. Adjustment of pH                      d. All

Q.10. Titrations involving Quantitative analysis by weight are

- a. Acid base titration                      b. Precipitation                      c. Diazotization                      d. None

Q.11. In diazotization titration the titrant used is

- a. Sodium hydroxide                      b. Sodium nitrite                      c. Sodium chloride                      d. None

Q.12. Process of dispersing an insoluble material into a liquid as a colloid is called

- a. Peptization                      b. Coagulation                      c. Precipitation                      d. None

Q.13. Which of the following method involves use of potassium chromate indicator

- a. Volhard's                      b. Mohr's                      c. Fajan's                      d. Gay Lussac

Q.14. Those processes in which standard iodine ( $\text{I}_2$ ) solution is used as an oxidizing agent ARE

- a. Iodimetry                      b. Iodometry                      c. Bromametry                      d. None

Q.15. Perchloric acid can be standardized by using

- a) benzoic acid  
phthalate
- b) oxalic acid  
d) tartaric acid
- c) potassium hydrogen

Q.16. Chlorine has an oxidation number of +5 in

- a. NaClO                      b. NaClO<sub>2</sub>                      c. NaClO<sub>3</sub>                      d. NaClO<sub>4</sub>

Q.17. The shape of Current-Voltage (CV) curve in polarography is

- a. **S-shape**                      b. T-shape                      c. L-shape                      d. - Shape

Q.18. The full form of DME is

- a. Direct metal electrode      b. Dropping mercury electrode      c. Diffusion mercury electrode  
d. Derivatize mercury electrode

Q.19. The diffusion current ( $i_d$ ) in polarography is;

- a. Current arises due to migration of ion from electrode to the bulk electrolyte  
b. Current arises due to migration of ion from bulk electrolyte to electrode  
c. Both a & b                      d. None of the above

Q.20. The standard electrode potential is

- a. Electrode potential at infinite ion activity                      b. Electrode potential at unit ion activity  
c. Electrode potential at 100<sup>th</sup> ion activity                      d. Electrode potential at null ion activity

**Part B Attempt any 2 questions out of 3 questions. Each carries 10 marks.**

Q.1. Describe the different types of salt hydrolysis with examples and reactions.

Q.2. What are complexometric titrations? Classify & explain different types of complexometric titration. Briefly write about masking and demasking agents.

Q.3. Explain Mohr's method and Fajan's method of determination of halides.

**Part C: Attempt any 7 questions out of 9 questions. Each carries 5 marks**

Q.4. Discuss the various types of currents in polarography.

Q.5. Write a note on non aqueous solvents with examples and reactions involved.

Q.6. Write a note on acid base indicator theory.

Q.7. Define accuracy and precision. Concentrated HCl (MW = 36.5) has a density of 1.18 g/ml and 36% by wt of HCl. How many ml of Conc. HCl should be dilute to 1 lit. with H<sub>2</sub>O to prepare a 0.100 M.

Q.8. Write a note on Iodimetry and Iodometry.

Q.9. Explain in brief the acid base titration curves by Conductometry. .

Q.10. Describe the principle, procedure and reaction involved in diazotization titrations.

Q.11. Enlist the various steps in gravimetry. Write a note washing liquids used in gravimetry.

Q.12. Explain Dropping mercury electrode with diagram.