

**B. PHARM.
FIRST SEMESTER
PHARMACEUTICAL ANALYSIS-I
BP102T [REPEAT]
[USE OMR SHEET FOR OBJECTIVE PART]**

**SET
A**

Duration : 3 hrs.

Full Marks : 75

[PART-A : Objective]

Time : 30 min.

Marks : 20

Choose the correct answer from the following:

1×20=20

- Which of following is not a primary standard
 - Sodium Carbonate
 - KBr
 - Oxalic acid
 - NaOH
- Which of the following is aprotic solvent
 - Pyridine
 - Glacial acetic acid
 - Benzene
 - Ethylenediamine
- IP assay of calcium gluconate is carried out by
 - Iodometry
 - Complexometric titration
 - Argentometry
 - Iodimetry
- The colour changes is due to ionization of the acid base indicator
 - Ostwald theory
 - Chromophore theory
 - Quinonoid Theory
 - Resonance Theory
- Indicator used for complexometric titration
 - EDTA
 - Phenolphthalein
 - Methyl red
 - Solochrome Black T
- Which of the following is used as demasking agent
 - Thioglycerol
 - Potassium cyanide
 - Formaldehyde-acetic acid
 - Copper
- Oxidation-reduction titration is also known as
 - Complexometric titration
 - Redox titration
 - Gravimetric titration
 - Gasometric titration
- An example of primary standard substance is
 - Na₂CO₃
 - FeSO₄
 - NH₄OH
 - NaOH
- A solution of known concentration is the definition of a
 - Buffer solution
 - Standard Solution
 - Neutral Solution
 - Saturated solution
- Involve addition of silver nitrate to form the precipitates of an insoluble silver salt
 - Conductometry
 - Iodometry
 - Argentometry
 - Dichrometry

11. Iodine is titrated directly with reductant in
 - a. Iodometry
 - b. Iodography
 - c. Cerimetry
 - d. Iodimetry
12. Primary amine is reacted with in cold acid to form diazonium salt.
 - a. Sodium nitrate
 - b. Silver nitrate
 - c. Sodium Hydroxide
 - d. Sodium Peroxide.
13. API Stands for
 - a. Active Pharmaceutical ion
 - b. Active Pharmaceutical Ingredient
 - c. Active Pharmacy Interpretation
 - d. Acute Pulmonary Interaction
14. 20gm NaOH in 500ml=
 - a. 0.5 M
 - b. 1M
 - c. 0.1 M
 - d. 0.25M
15. Solvent which are chemically inert and doesn't donate or accept proton are
 - a. Protophillic
 - b. Protogenic
 - c. Amphiprotic
 - d. Aprotic
16. SI unit of conductance is
 - a. Seimens
 - b. Mho
 - c. Volt
 - d. None of these
17. Potentiometry is an..... Method of analysis
 - a. Spectroscopic
 - b. Electrochemical
 - c. Analytical
 - d. None of these
18. Which is the synonym of Solochrome Black T
 - a. Erichrome Black T
 - b. Thymol Black
 - c. Mordant Black II
 - d. Both (a) and (c)
19. What indicator is used for the estimation of Sodium Chloride by Mohr's method?
 - a. Potassium dihydroxide
 - b. Mordant Black II
 - c. Methyl red
 - d. Potassium chromate
20. Iodometry is also known as
 - a. Direct titration
 - b. Back Titration
 - c. Replacement titration
 - d. Indirect titration

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(PART-B : Descriptive)

Time : 2 hrs. 30 min.

Marks : 35

[Answer any seven (7) questions]

1. Discuss Iodometry and Iodimetry titration with applications. 5
2. What are primary and secondary standards? Give the ideal requirements of primary standards. 2+3
3. Explain different types of solvents used for non-aqueous titrations with examples. 5
4. What is back titration? Explain with example 5
5. What is quinonoid theory? Explain in details Ostwald's theory applying law of mass action. 2+3
6. Answer the following (*Any two*) 2.5+2.5
 - a. Precision
 - b. Accuracy
 - c. Rules about the significant figures
7. Write down the difference between Mohr's method and Fajan's method. 5
8. Why there is no need to standardize oxalic acid? Write down the principle and preparation of sodium thiosulphate. 1+4
9. What is masking and demasking agent. What is the need of masking and demasking agent? 2+3

(PART-C : Long type questions)

[Answer any two (2) questions]

1. Describe a method of analysis to estimate halide ion using ferric alum as an indicator and NH_4SCN as a standard? Explain the principle and procedure involve in estimation of sodium chloride. 5+5=10
2. Explain the role of analytical chemistry. Classify different techniques of pharmaceutical analysis. 3+7=10
3. Write different sources of error? Explain different theories of acid and bases. 5+5=10

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