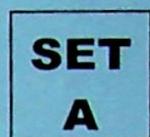


B. PHARM.
FIRST SEMESTER
PHARMACEUTICAL ANALYSIS-I
BP102T

USE OMR SHEET FOR OBJECTIVE PART

Duration : 3 hrs.

Full Marks : 75



**SET
A**

Marks • 20

Time : 30 min

Marks • 20

Choose the correct answer from the following:

$$1 \times 20 = 20$$

- 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
 - Na_2CO_3
 - FeSO_4
 - NH_4OH
 - 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 insoluble silver salt
 - Conductometry
 - Iodometry
 - Argentometry
 - Dichrometry

11. Iodine is titrated directly with reductant in
a. Iodometry
c. Cerimetry

b. Iodography
d. Iodometry

12. Primary amine is reacted with in cold acid to form diazonium salt.
a. Sodium nitrate
c. Sodium Hydroxide

b. Silver nitrate
d. Sodium Peroxide.

13. API Stands for
a. Active Pharmaceutical ion
c. Active Pharmacy Interpretation

b. Active Pharmaceutical Ingredient
d. Acute Pulmonary Interaction

14. 20gm NaOH in 500ml=
a. 0.5 M
c. 0.1 M

b. 1M
d. 0.25M

15. Solvent which are chemically inert and doesn't donate or accept proton are
a. Protophillic
c. Amphiprotic

b. Protogenic
d. Aprotic

16. SI unit of conductance is
a. Seimens
c. Volt

b. Mho
d. None of these

17. Potentiometry is an..... Method of analysis
a. Spectroscopic
c. Analytical

b. Electrochemical
d. None of these

18. Which is the synonym of Solochrome Black T
a. Erichrome Black T
c. Mordant Black II

b. Thymol Black
d. Both (a) and (c)

19. What indicator is used for the estimation of Sodium Chloride by Mohr's method?
a. Potassium dichromate
c. Methyl red

b. Mordant Black II
d. Potassium chromate

20. Iodometry is also known as
a. Direct titration
c. Replacement titration

b. Back Titration
d. Indirect titration

[2]

USTM/COE/R-01

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 NH₄SCN 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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