

**B. PHARM.
FIRST SEMESTER
PHARMACEUTICAL ANALYSIS I
BP102T**

**SET
A**

[USE OMR FOR OBJECTIVE PART]

Duration : 3 hrs.

Full Marks : 75

(PART-A: Objective)

Time : 30 min.

Marks : 20

1×20=20

Choose the correct answer from the following:

- pH stands for
 - Negative logarithm of hydrogen ion concentration
 - Negative hydrogen concentration
 - Hydroxide ion concentration of log
 - Hydroxyl ion concentration of log
- Chromatography is
 - Separation technique
 - Supportive technique
 - Sedimentation technique
 - Operative technique
- HLC stands for
 - Thin layer chromatography
 - Three layer chromatography
 - Thick layer chromatography
 - Through layer chromatography
- Which statement is correct
 - Accuracy with precision is impossible
 - Accuracy and precision are same
 - Accuracy without precision is impossible
 - Accuracy with precision will give a null result
- is the primary standard for standardization of sodium hydroxide.
 - Sodium carbonate
 - Sodium chloride
 - Oxalic acid
 - Potassium dichromate
- Electro Analytical method also known as
 - Analytical separation method
 - Electro chemical method
 - Microbial method
 - Chemical method
- From the following which one is act as a self-indicator
 - KMnO₄
 - Methyl orange
 - H₂SO₄
 - Methyl Red
- What is the Molecular weight of NaOH
 - 31.541
 - 40.154
 - 45.517
 - 39.997
- The process of adding known concentration until it completes the reaction is known as:
 - Titrant
 - Analysis
 - Titrand
 - Titration

10. Which of the following are indeterminate error?
- | | |
|---------------------|-------------------|
| a. Instrument error | b. Personal error |
| c. Random error | d. Chemical error |
11. -----is the indicator of acid base titration.
- | | |
|--------------------|--------------|
| a. Phenolphthalein | b. Methoxide |
| c. Carbon | d. Methanol |
12. How many types is there in non-aqueous titration
- | | |
|------|------|
| a. 4 | b. 2 |
| c. 5 | d. 6 |
13. Molecular formula of perchloric acid
- | | |
|--------------------|---------------------|
| a. HClO_4 | b. HClO |
| c. HClO_2 | d. HClOH_4 |
14. Non aqueous titration is also called as
- | | |
|-------------------------|---------------------------|
| a. Argentometric method | b. Differentiating effect |
| c. Levelling effect | d. Aprotic solvents |
15. Aprotic solvents are
- | | |
|--------------------------------------|------------------------------------|
| a. Possess low dielectric constants | b. Possess no dielectric constants |
| c. Possess high dielectric constants | d. Possess dielectric constants |
16. Levelling effects are observed under the condition of.
- | | |
|-------------------------|----------------|
| a. Protophilic solvents | b. Amphoteric |
| c. Aprotic solvents | d. Amphiprotic |
17. Molecular weight of sodium benzoate
- | | |
|------------------|------------------|
| a. 144.11 g/mole | b. 182.51 g/mole |
| c. 141.41 g/mole | d. 181.22 g/mole |
18. Indicator used in the standardization of 0.1 N HClO_4 is.....
- | | |
|---------------------|--------------------|
| a. Methyl red | b. Crystal violet |
| c. Sodium methoxide | d. phenolphthalein |
19. GAA stands for
- | | |
|------------------------|----------------------------|
| a. Glacial acetic acid | b. Glacial artificial acid |
| c. Galic acetic acid | d. Glacial acetone acid |
20. Perchloric acid
- | | |
|--------------------|------------------------|
| a. Oxidizing agent | b. Non basic substance |
| c. Reducing agent | d. Alkaline solution |

(PART-B: Descriptive)

Time : 2 hrs. 30 min.

Marks : 35

[Answer any seven (7) questions]

1. Write the way of separation of element and properties of gravimetric analysis. 3+2=5
2. Write the factors effecting the precipitation in gravimetry. 5
Or
Write a note on hydrogen ion concentration.
3. Define errors. Explain the types of errors and minimisation of errors. 1+2+2
=5
4. Write the end point determination in argentometric titration. Write the difference between Mohr's method and Volhard's method. 2+3=5
5. What are the titrants used in acidimetry titration and alkalimetry titration. Write the estimation of sodium benzoate. 2+3=5
6. Write the advantages of gravimetric analysis. 5
7. Write four indicators name used in complexometric titration and explain any two with structure. 1+2+2
=5
8. Define oxidation and reduction. Write the oxidation reduction types and explain. 1+4=5
9. Explain the oxidation reduction titration curve. 5

(PART-C : Long type questions)

[Answer any two (2) questions]

1. Explain the different techniques of analysis. Write a note on law of mass of action. Write the standardization of 0.1N oxalic acid solution. 4+4+2
=10
2. Define non aqueous titration. Explain the end point determination in redox titration. Write the source of impurities in medicinal agents. 1+5+4
=10
3. Write the classification of ligands and mechanism of complex formation. Explain the types of complexometric titration. 2+4+4
=10