

Course: B.Pharm.**Subject: Pharmaceutical Analysis-I (BP102T)****Date: 27/12/2019****Semester: I****Marks: 75****Time: 3hrs**

- Instructions:** i) All questions are compulsory
ii) Figures to the right indicate full marks
iii) Draw the diagrams or flow charts wherever necessary.

Q.No.1 Attempt the following questions (All Questions Compulsory)**(20 Marks)**

- Concentration is not expressed is -----.
A. w/v
B. v/v
C. v/v
D. w/w
- Ionic product of water is -----.
A. 1×10^{-13}
B. 1×10^{-14}
C. 1×10^{-15}
D. 1×10^{-16}
- Which of the following is primary standard substance?
A. Oxalic acid
B. Sodium Hydroxide
C. Potassium Permanganate
D. All of Above
- Indeterminate error is also called as -----.
A. Operational error
B. Instrumental error
C. Error of method
D. Random error
- How many grams of Sodium hydroxide will be required to prepare 250 ml of 0.1N solution?
A. 10
B. 1
C. 0.1
D. 0.01
- What is color change interval of methyl Red (pH Change)?
A. 0.8 – 1.2
B. 1.2 – 2.8
C. 2.8 – 3.6
D. 4.2 – 6.3
- Number of moles of solute per 1000 gm of solvent gives ----- solution.
A. 1 Molar
B. 1 Molal
C. 1 Normal
D. 1 Percent
- In titration of weak base with weak acid, the solution at equivalence point will be -----.
A. Neutral
B. Acidic

- C. Basic
D. No change in pH
9. Methanol is ----- solvent used in Non-aqueous titration.
A. Aprotic
B. Protogenic
C. Protophilic
D. Amphiprotic
10. The indicator employed in Volhards method is -----.
A. Ferric ammonium sulphate
B. Ferroin
C. Crystal violet
D. None of these
11. Dead stop end point method is also known as -----.
A. Potentiometry
B. Conductometry
C. Titration with 2 indicator electrodes
D. Titration with indicator and reference electrode
12. The conductance that changes on dilution is ----- conductance.
A. Molar
B. Equivalent
C. Specific
D. All of these
13. Drop of mercury in DME acts as ----- electrode.
A. Reference
B. Indicator
C. Hydrogen
D. Calomel
14. Titrations with standard solution of Iodine are termed as -----.
A. Iodometry
B. Iodimetry
C. Redox
D. All of these
15. EDTA is popularly employed as a -----.
A. Multidentate ligand
B. Complexing agent
C. Chelating agent
D. All of these
16. Ferrous sulphate is assayed by ----- titration.
A. Ceriometry
B. Iodimetry
C. Mercurimetry
D. Bromatometry
17. Which of the following Titrant is act as self-indicator?
A. Potassium Permanganate
B. Silver Nitrate
C. Sodium Hydroxide
D. Hydrochloric Acid
18. Diazotization method is carried out for following compound -----.
A. Aromatic Amine
B. Phenol
C. Aromatic Aldehyde
D. Aromatic Ketone

19. Glass electrode is example of ----- electrode.

- A. Reference
- B. Ion selective
- C. Indicator
- D. Both B & C

20. What is emf -----.

- A. Electro motive force
- B. Electron motion force
- C. Electro motion force
- D. All of these

Q.No.2 Attempt any TWO questions of the following: (20 Marks)

- A] Explain different types of Acid-Base titration; add a note on neutralization curve.
- B] Explain various steps involved in gravimetric analysis.
- C] Give the theory behind conductometry. Explain different shapes of graphs obtained during acid-base titrations. Define different conductances and add note on effect of dilution on conductances.

Q.No.3 Attempt any SEVEN questions of the following: (35 Marks)

- A] Write a note on theories of indicator.
- B] Explain types of errors and methods to minimize the errors.
- C] Write a note on Diazotization method.
- D] Differentiate between Mohr's and Volhard's method.
- E] Write a note on different types of Complexometric titration.
- F] Write in details about solvents used in non-aqueous titrations with appropriate examples.
- G] Explain principle involved in conductometric titrations and give its applications.
- H] Write short note on reference electrodes.
- I] Give basic principle of Polarography. Explain construction and working of DME with its advantages and disadvantages.

----- END OF PAPER -----