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**B.Pharmacy (Semester – I) (New CBCS) Examination, 2018**  
**PHARMACEUTICAL ANALYSIS – I**

Day and Date : Monday, 10-12-2018  
Time : 10.30 a.m. to 1.30 p.m.

Total Marks : 75

I. Multiple choice questions : (20×1=20)

- 1) \_\_\_\_\_ is used as primary standard for standardization of NaOH.  
a) Sodium carbonate                      b) Sodium bicarbonate  
c) Sodium chloride                      d) Potassium dichromate
- 2) Phenolphthalein has a pH range of  
a) 6.8 – 8.4      b) 1.2 – 2.8      c) 8.3 – 11.0      d) 4.2 – 6.3
- 3) Errors arise due to the individual analyst is responsible for them  
a) Method error                      b) Instrumental error  
c) Personal error                      d) Random error
- 4) Solution of known concentration  
a) Standard solution                      b) Concentration  
c) Solution                      d) Concentrated solution
- 5) Primary standard used in redox titration  
a) Potassium dichromate                      b) Oxalic acid  
c) Arsenic trioxide                      d) All
- 6) Acid is a substance which dissociates in water to produce hydrogen ions  
a) Arrhenius theory                      b) Lewis theory  
c) Bronsted theory                      d) Lowry theory
- 7) The colour change is due to ionisation of the acid base indicators  
a) Ostwald theory                      b) Chromophore theory  
c) Quinonoid theory                      d) Resonance theory
- 8) Substance that can be reversibly oxidized or reduced, having different distinct colour in the individual oxidized and reduced forms  
a) Redox indicators                      b) Redox potential  
c) Redox number                      d) Redox state

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- 9) 20 gm NaOH in 500 ml =  
a) 0.1 N                      b) 1 N                      c) 0.5 M                      d) 0.05 N
- 10) In oxidation reduction change in \_\_\_\_\_ of reacting element takes place.  
a) Volume                      b) pH                      c) Absorbance                      d) Valency
- 11) \_\_\_\_\_ is not an amphiprotic solvent.  
a) Water                      b) Alcohol                      c) Acetic acid                      d) None
- 12) Mordant blue III indicator is used for \_\_\_\_\_ detection.  
a) Aluminium                      b) Calcium                      c) Magnesium                      d) Thorium
- 13) \_\_\_\_\_ is not type of co-precipitation.  
a) Surface adsorption                      b) Occlusion  
c) Crystallization                      d) Mechanical entrapment
- 14) Acidic dyes used in Fajan's method  
a) Phenol                      b) Rhodamine series  
c) Fluorescein                      d) Thymol blue
- 15) Oxidation-Reduction titration is also known as  
a) Complexometric titration                      b) Gravimetric titration  
c) Redox titration                      d) Gasometric titration
- 16) Potentiometry is type of \_\_\_\_\_ method.  
a) Qualitative                      b) Chromatographic  
c) Classical                      d) Electro-chemical
- 17) Chelating agent is  
a) Salicylic acid                      b) EDTA  
c) Benzoic acid                      d) Glycerol
- 18) \_\_\_\_\_ used as titrant in non-aqueous titration.  
a) EDTA                      b) Perchloric acid  
c) Sodium nitrite                      d) Silver nitrite
- 19) Assay of calcium gluconate \_\_\_\_\_ used to increase the sharp end point.  
a) Magnesium sulphate                      b) Calcium sulphate  
c) Calcium carbonate                      d) Magnesium carbonate
- 20) Conductometry used for the measurement of  
a) Conductivity                      b) Potential  
c) Temperature                      d) Concentration



II. Long answers (**any 2**) :

(10×2=20)

- 1) Explain any two neutralisation curves with examples.
- 2) Explain Fajan method and Mohr's method.
- 3) Explain the types of redox titration.

III. Short answers (**any 7**) :

(5×7=35)

- 1) Write about masking and demasking agent with example.
  - 2) Discuss the concept of Co-precipitation.
  - 3) Discuss in brief principle of conductometric titration.
  - 4) Define pharmaceutical analysis. Give the importance of pharmaceutical analysis.
  - 5) Define and classify errors.
  - 6) Enlist steps involved in gravimetry. Explain in detail filtration.
  - 7) How will you prepare and standardize 1M  $\text{KMnO}_4$  ?
  - 8) Draw the diagram and advantages of Dropping Mercury Electrode.
  - 9) Explain the solvents used in non-aqueous titrations.
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