Bachelor of Pharmacy (B.Pharm) (CBCS Pattern) First Semester

BP 102T- Pharmaceutical Analysis-I

P. Pages : 3 **GUG/W/18/10871**

Time : Three Hours * 3 0 0 9 * Max. Marks :75

Notes : 1. Assume suitable data wherever necessary.
2. Diagrams and Chemical equation should be given wherever necessary.
3. Discuss the reaction, Mechanism wherever necessary.
4. All Questions are compulsory.

1. Multiple choice questions. **20**

i) May be defined as an essential or distinctive characteristic, property or attribute.
a) Purity b) Quantity
c) Quality d) None

ii) % w/w express the
a) No. of g. of solute in 1000g. of product.
b) No. of g. of solute in 100g. of product.
c) No. of g. of solute in 100ml of product.
d) No. of ml of solute in 100ml of product.

iii) It is result from the carelessness, Inattention or personal limitations of the Experiments.
a) Instrumental Error. b) Method Error.
c) Equipment Error. d) personal Error.

iv) The numerical figure having how many significant figures.
a) Two b) Four
c) Three d) None of these.

v) A measurement which on repetition gives the same or nearly same result is called.
a) Accurate Measurement b) Average Measurement
c) Precise Measurement d) Estimated Measurement

vi) Primary standard should be
a) Inert b) Low molecular weight
c) Not stable d) None of there

vii) Amphiprotic Solvents are both.
a) Aprotic, Protophilic b) Protophilic, Protogenic
c) Protogenic, Aprotic d) None of these

viii) It is defined as the negative log of hydroxyl ion concentration.
a) pOH b) pH
c) pKa d) pKw

ix) Limit test for arsenic involve formation of yellow stain on mercuric chloride paper due to
a) H_2S gas b) CO_2 gas
c) Arsine gas d) Nitrogen gas.

x) The role of citric acid in limit test for Iron is to prevent.
   a) Oxidation b) Precipitate formation
   c) Neutralization d) Reduction.

xi) Titration of which is done by using perchloric acid.
   a) Weak acid b) Weak base
   c) Very strong acid d) Very weak acid

xii) Acetic acid, water and alcohol are the example of.
   a) Aprotic solvent b) Protogenic solvent
   c) Protophilic solvent d) Amphiprotic solvent

xiii) Stability complex is based on.
   a) Acid base equilibrium b) P^H
   c) Law of mass action d) None of these

xiv) The reagent which undergoes reduction is an agent and the reagent which undergoes oxidation is agent.
   a) Oxidizing, Reducing b) Reducing, Oxidizing
   c) Complexing, Reducing d) None of these

xv) Ceric ammonium sulphate and titanous chloride are agents respectively.
   a) Reducing, Oxidizing b) Oxidizing, Reducing
   c) Chelator, Precipitate d) All of the above

xvi) Specific conductivity of pure water is
   a) $6\times10^{-8}\text{ohm}^{-1}\text{cm}^{-1}$. b) $5\times10^{-8}\text{ohm}^{-1}\text{cm}^{-1}$.
   c) $-6\times10^{-8}\text{ohm}^{-1}\text{cm}^{-1}$. d) $-5\times10^{-8}\text{ohm}^{-1}\text{cm}^{-1}$.

xvii) Hydrogen electrode is a
   a) Reference electrode b) Indicator electrode
   c) Both of the above d) None of the above

xviii) E-cell is the sum of
   a) E indicator + E Reference + E Junction
   b) E Junction + E Reference + E Indicator
   c) E Indicator + E Junction + E Junction
   d) E Reference + E Indicator + E Junction

xix) Diffusion current can be correlated with different conditions by
   a) Nernst Equation b) Bragg's Equation
   c) Illkovic's Equation d) Beer's Equation

xx) In polarograph supporting electrode must have
   a) High Reduction potential b) High Oxidation Potential
   c) Low Reduction Potential d) Low Oxidation Potential

2. Attempt **any two** following **20**

i) Define pharmaceutical Analysis and write in detail about different techniques of analysis

ii) What is gravimetric Analysis write in detail about different steps involve in gravimetric Analysis

iii) Write in detail about titrations performed by conductometry with it's applications

3. Attempt **any seven** following **35**

i) What are the methods for expressing concentration.

ii) Explain the limit test for heavy metal.

iii) Give a classification of acid-base titration.

iv) What are the errors? How errors are minimized.

v) Write about masking and demasking agents with estimation of calcium gluconate.

vi) Explain Volhard and modified Volhard's method

vii) Explain about Iodimetry? Iodometry

viii) Write standardization methods for $KMnO_4$ and H_2SO_4

ix) Explain construction and working of dropping mercury Electrode.

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