

University of Mumbai
Semester Theory Examination Second Half 2020
Question Bank
Section I : Multiple Choice Question (MCQ's) SET VI

Year: S Y B. Pharmacy

Semester: III

Subject Code: BP 302T (Physical Pharmaceutics I)

1. At Constant temperature the solubility of gas in a liquid is proportional to the pressure of the gas above it is called as
 - A. Raoult's law
 - B. Henry's law
 - C. Graham's law
 - D. Avogadro law

2. The pressure of a fixed amount of gas at a constant temperature is inversely proportional to the volume of the gas is called as
 - A. Boyle's Law
 - B. Charles law
 - C. Gay lusacs law
 - D. Avogadros law

3. Thermodynamically system is stable when surface free energy is
 - A. Maximum
 - B. Minimum
 - C. Varies
 - D. Hundred

4. Almost all Type of Drugs Binds to this Protein in Humans
 - A. Haemoglobin
 - B. Lipoproteins
 - C. Human Serum Albumin
 - D. Globulin

5. $\text{pH} + \text{pOH} = ?$
 - A. 10
 - B. 7
 - C. 14
 - D. 7.2

6. Fick's law is used for study of _____.
 - A. Dissolution rate
 - B. Disintegration rate
 - C. Dissociation rate
 - D. Diffusion rate

7. An Aerosol is
- A. A Suspension of fine particles or droplets
 - B. A Pure gas filled in container
 - C. A Liquid filled in container
 - D. A mixture of two immiscible liquids only filled in container
8. Drop weight and drop count are the methods used to measure
- A. Surface tension
 - B. Surface area
 - C. Particle size
 - D. Density
9. Gel Filtration is one of the useful techniques for determination of
- A. Surface Tension
 - B. Viscosity
 - C. Protein Drug Binding
 - D. Stability of Suspension
10. Which one of the following has acidic pH?
- A. Blood
 - B. Intestinal fluids
 - C. Orange juice
 - D. Saliva
11. The pressure of a fixed amount of gas at a constant At a fixed pressure, the volume of a gas is proportional to the temperature of the gas.
- A. Boyle's Law
 - B. Charles law
 - C. Gay lusacs law
 - D. Avogadros law
12. The spherical shape of the water drop is phenomenon due to
- A. Interfacial tension
 - B. Surface tension
 - C. surface free energy
 - D. viscosity
13. Among All Four Drug HSA Biding Site II is also Known as
- A. Warfarin Binding Site
 - B. Tamoxifen Binding Site
 - C. Diazepam Binding Site
 - D. Digitoxin Binding Site
14. Strong Electrolyte remain as ----- in organic layer and undergo dissociation in water
- A. Real Solution
 - B. Monomer
 - C. Anion
 - D. Complex

15. The critical point at which liquid and vapour phases become indistinguishable is known as
- A. Supercritical fluid
 - B. Vapour pressure
 - C. Eutectic point
 - D. Triple point
16. Which of the following is NOT a method to measure the surface or interfacial tension
- A. Capillary Rise Method
 - B. Drop method
 - C. Bubble pressure method
 - D. Optical microscopy
17. Which of the following statements about the characteristics of solutions is accurate?
- A. The solute is the component of the solution that is present in the greatest quantity.
 - B. Solutions can be solids, liquids, or gases.
 - C. Only one phase is visible in a Two Component mixture.
 - D. Dilute solution contains a relatively large quantity of solute per unit volume of solvent
18. The fourth state of matter possessing the properties of both solid and liquid is called as
- A. Liquid crystalline state
 - B. Solid crystalline state
 - C. Amorphism
 - D. Polymorphism
19. If the temperature of the liquid is increased, then surface tension will
- A. Remain constant
 - B. Increase
 - C. Decrease
 - D. Cannot be predicted
20. Based on the Henderson-Hasselbalch equation, at what pH value would a weak acid be 99.9% ionized?
- A. At pH equivalent to $pK_a + 3$
 - B. At pH equivalent to $pK_a - 3$
 - C. At pH equivalent to $pK_a - 1$
 - D. At pH equivalent to $pK_a + 1$