

- xi) When the size of particle is less than 1 nm then it is called -----
 a) Molecular dispersion b) Colloidal dispersion
 c) Suspension d) Emulsion
- xii) The term rheology was invented by
 a) Bingham and Crowford b) Newton
 c) Michaelis and Menten d) Watson and crick
- xiii) The ratio of stress to strain is called
 a) Poisson ratio b) Young Modulus
 c) Shear strain d) Elastic modulus
- xiv) The unit of strain is-
 a) N b) Nm^{-2}
 c) Nm^2 d) Dimensionless
- xv) If Zeta potential of suspension is high then system will be considered as
 a) Deflocculation b) Flocculation
 c) Emulsion d) Sedimentation
- xvi) The potential difference develop when particle settle under the influence of gravity called.
 a) Streaming potential b) Oxidation potential
 c) Reduction potential d) Sedimentation potential
- xvii) Pseudoplastic flow are also known as -----
 a) Shear thinning system b) Shear thickening system
 c) Elastic deformation d) Plastic deformation
- xviii) The effect of temperature on the viscosity of a liquid is expressed by -----
 a) Stokes law b) Newtons law.
 c) Arrhenius equation d) Michaelis Menten equation
- xix) In flocculated suspension, the rate of sedimentation is -----
 a) Low b) More
 c) Zero d) 50%
- xx) Fluidity is –
 a) Reciprocal of density b) Reciprocal of Surface tension
 c) Reciprocal of Volume d) Reciprocal of Viscosity

2. Solve the following **any two**.

**10x2
=20**

- i) Define solubility. Enumerate factors affecting solubility. Briefly discuss each one with example.
- ii) Give detail account on Aerosoles.
- iii) Write a note on methods of measuring surface tension.

3. Solve the following **any seven**.

5x7
=35

- i) What is CST ? Describe it with suitable example.
- ii) What is the function of inhaler. Discuss briefly about different types of inhaler.
- iii) Define following terms
 - i) Melting point
 - ii) Freezing point
 - iii) Vaporisation
 - iv) Sublimation
 - v) Deposition
- iv) Write principle and working of Ostwald viscometer.
- v) Explain properties of colloids.
- vi) Write a note on elastic modulus.
- vii) At 20° C the time required for flow of water and organic liquid through Ostwald Viscometer is 45 sec and 18 sec respectively. Suppose density of water and liquid are 0.9982 and 1.17 g/ml respectively. The viscosity of Organic liquid at 20°C is 1.002 centipoise. Calculate viscosity of organic liquid at 20°C.
- viii) Write a note on dipole moment
- ix) What is polymorphism? Discuss it with suitable example.
