Chemical Engineering Stoichiometry MCQ Questions

1. Which of the following has the smallest least effect on the solubility of a solute into the solvent?
(A) pressure
(B) temperature
(C) nature of the solvent
(D) nature of the solute
Ans: A
pressure
2. The heat capacity of a substance is
(A) equal for solid and liquid states below melting point
(B) higher for solid state than for liquid state
(C) lower for liquid state than for gaseous state
(D) greater for liquid state than for solid state
Ans: D
greater for liquid state than for solid state
3. In a chemical process, the recycle stream is purged for
(A) heat conservation
(B) limiting the inerts
(C) enriching the product
(D) increasing the product yield
Ans: B

limiting the inerts
4. Heat of transition is the heat evolved or absorbed, when a substance is converted from
(A) one allotropic form to another allotropic form
(B) solid to liquid
(C) vapor to solid
(D) vapor to liquid
Ans: A
one allotropic form to another allotropic form
5. The latest heat of vaporization
(A) becomes zero at the critical point
(B) decreases with increased temperature
(C) decreases as pressure increases
(D) all a, b and c
Ans: D
all a, b and c
6. A vapor that exists above its critical temperature is termed as a vapor.
(A) gaseous
(B) saturated
(C) unsaturated
(D) sub-cooled

Ans: gaseous

7. Which of the following has the least effect on the solubility of a solute in a solvent?
(A) nature of solvent
(B) pressure
(C) temperature
(D) nature of solids
Ans: pressure
8. Kopp's rule is useful for the determination of
(A) activation energy
(B) heat capacities of gases
(C) heat capacities of solids
(D) molal heat capabilities of gases
Ans: heat capacities of solids
9. The most convenient way of expressing solution concentration is in terms of
(A) molarity
(B) molality
(C) normality
(D) mole fraction
Ans: molarity
10. Heat of solution in a system in which both solute and solvent are liquids is termed as
(A) heat of mixing
(B) standard integral heat of solution

- (C) heat of hydration
- (D) heat of salvation

Ans: heat of mixing

