Chemical Engineering Mass Transfer Quiz Questions & Answers

1. Rose oil is extracted from rose leaves using ____ distillation.
   a. high pressure
   b. low pressure
   c. extractive
   d. steam
   Ans: D
2. The most efficient cooling tower out of the following is
   a. induced draft
   b. forced draft
   c. natural draft
   d. atmospheric
   Ans: A
3. In a physical term, Schmidt number means
   a. Thermal diffusivity/mss diffusivity
   b. Thermal diffusivity/momentum diffusivity
   c. Momentum diffusivity / mass diffusivity
   d. Mss diffusivity / thermal diffusivity
   Ans: C
4. Molecular diffusion is caused by the
   a. Transfer of molecules from low concentration to high concentration region
   b. Thermal energy of the molecules
   c. Activation energy of the molecules
   d. Potential energy of the molecules
   Ans: B
5. For absorbers, high pressure drop results in
   a. Increased efficiency
   b. Decreased efficiency
   c. High operating cost
   d. Better gas liquid contact
   Ans: C
6. Henry's law states that the
   a. Partial pressure of a compound over a solution is proportional to its mole fraction in the liquid
   b. Partial pressure of a component over a solution is proportional to the mole fraction in the vapour
   c. Vapour pressure is equal to the product of the mole fraction and total pressure
   d. Partial pressure is equal to the product of the mole fraction and total pressure
   Ans: A
7. Azeotropic distillation is employed to separate
   a. Constant boiling mixture
   b. High boiling mixture

c. Mixture with very high relative volatility
d. Heat sensitive materials
Ns: A

8. Which of the following adsorbent is used to decolorise yellow glycerine?
   a. Silica gel
   b. Alumina
   c. Fuller's earth
   d. Activated carbon
   Ans: D
9. Rate of absorption increases as the
   a. Temperature increases
   b. Temperature decreases
   c. Pressure decreases
   d. Size of adsorbent increases
   Ans: B
10. Tower diameter may be decreased by
    a. using higher reflux ratio
    b. use of increased tray spacing
    c. increasing the liquid flow rate
    d. increasing the vapour flow rate
    Ans: B