

## Chapter 4 Food Engineering

1. Which one of the following are components of an evaporator?  
(A) Heat exchanger  
(B) Vacuum separator  
(C) Condenser  
(D) Cyclone separator
  
2. Which of the following are TRUE while concentrating jams?  
(A) They're sensitive to heat  
(B) Evaporation process for jams is carried out under vacuum  
(C) a layer of pectin on jam's surface appears during boiling  
(D) At vacuum, the boiling point decreases
  
3. A major reason as to why evaporators and their selection for different applications in the food industry is very important is because  
(A) organoleptic characteristics of food is very important  
(B) many food items are heat sensitive  
(C) majority of them have high moisture content  
(D) it makes the food non-toxic
  
4. Which of the following are measuring technique of  $K_{La}$ ?  
(A) Dynamic gassing out method  
(B) Cobalt oxidation method  
(C) Static method  
(D) Sulphite oxidation method
  
5. What does the thin layer model of drying beds in drying of grains depend on?  
(A) Temperature of air  
(B) Air flow  
(C) Initial moisture content  
(D) Mass transfer coefficient
  
6. Which of the following dryers requires non-sticky granular feed?  
(A) Tray dryer  
(B) Rotary dryer  
(C) Fluidized bed dryer  
(D) Vacuum dryer
  
7. Which of the following dryers can take a feed in the form of pastes/slurries/sticky items?  
(A) Drum dryer  
(B) Screw conveyor dryer  
(C) Pneumatic dryer  
(D) Spray dryer
  
8. Which of the following statements are CORRECT with respect to gas absorption?

- (A) Sufficient contact time plays an important role in absorption
  - (B) Agitated vessels are used for physical absorption
  - (C) Adequate contact area plays an important role in absorption
  - (D) Contact time becomes irrelevant after equilibrium and only the interfacial area plays a crucial role
9. Which of the following are TRUE about bubbles in agitator vessel?
- (A) They are smaller than agitator vessel
  - (B) They have high interfacial area
  - (C) They are larger than agitator vessel
  - (D) They have high rise viscosity
10. Which of the following operations are carried out by extraction equipment?
- (A) Chloroform is an important solvent for wet and edible materials
  - (B) Leaving as little solvent as possible in the spent cake
  - (C) Bringing intimate contact between solute and solvent
  - (D) Leaching solute out as quick as possible by letting solute diffuse into the solvent from porous structure of solids

**Answer**

- 1. (A), (B), (C)
- 2. (A), (B), (D)
- 3. (A), (B), (C)
- 4. (A), (C), (D)
- 5. (A), (B), (C)
- 6. (B), (C)
- 7. (A), (B), (D)
- 8. (A), (C), (D)
- 9. (A), (B)
- 10. (B), (C), (D)