

## Chemical Engineering Fluid Mechanics Quiz Questions

1. The magnus effect is defined as the
  - a. generation of lift per unit drag force
  - b. circulation induced in an aircraft wing
  - c. separation of boundary layer near the trailing edge of a slender body
  - d. generation of lift on a rotating cylinder in a uniform flow

Ans: D

2. Slurries are most conveniently pumped by a
  - a. syringe pump
  - b. diaphragm pump
  - c. vacuum pump
  - d. gear pump

Ans: B

3. In a normal shock in a gas, the
  - a. upstream flow is supersonic
  - b. upstream flow is subsonic
  - c. downstream flow is sonic
  - d. both downstream flow and upstream flow are supersonic

Ans: A

4. Which of the following fans are suitable for handling dust laden and high temperature gases?
  - a. forward curved
  - b. backward curved
  - c. propeller
  - d. radial

Ans: D

5. A pitot tube measures the \_\_\_\_ of the fluid.
  - a. flow
  - b. static pressure
  - c. velocity
  - d. difference between total and static pressure

Ans: D

6. Navier stokes equation are associated with
  - a. buoyancy
  - b. supersonic flow
  - c. viscosity

d. vortex flow

Ans: C

7. \_\_\_ flow is indicated by the value of Mach number equal to unity.

- a. turbulent
- b. sonic
- c. super sonic
- d. sub sonic

Ans: B

8. \_\_\_ forces do not act in case of fluid flow.

- a. elastic
- b. tensile
- c. vibratory
- d. centrifugal

Ans: B

9. Which of the following is an undesirable property of a manometric liquid?

- a. non sticky and non corrosive nature
- b. high vapour pressure
- c. low viscosity and surface tension
- d. low coefficient of thermal expansion

Ans: B

10. Fluid flow at increasing rate through a diverging pipe is an example of \_\_\_ flow.

- a. steady uniform
- b. non steady uniform
- c. steady non uniform
- d. non steady non uniform

Ans: D