18 Lecture - PHY101

Important Mcqs

What is the relationship between pressure and velocity in a fluid, according to Bernoulli's principle?

A. Pressure and velocity are directly proportional

B. Pressure and velocity are inversely proportional

C. Pressure and velocity are not related

D. None of the above

Answer: B. Pressure and velocity are inversely proportional

What is the unit of viscosity?

A. kg/m^3

B. m/s^2

C. Pa·s

D. J/kg

Answer: C. Pa·s

What is the term for the force per unit area acting on a surface in contact with a fluid?

A. Buoyancy

B. Pressure

C. Surface tension

D. Viscosity

Answer: B. Pressure

Which type of fluid flow occurs when the fluid moves in a straight line at a constant velocity?

A. Laminar flow

B. Turbulent flow

C. Transitional flow

D. Viscous flow

Answer: A. Laminar flow

What is the term for the ratio of a fluid's density to its viscosity?

A. Mach number

B. Reynolds number

C. Weber number

D. Froude number

Answer: B. Reynolds number

What is the term for the point in a fluid flow where the velocity is at its maximum and the pressure is at its minimum?

A. Stagnation point

B. Separation point

C. Vortex point

D. Turbulent point

Answer: A. Stagnation point

Which principle states that the total pressure in a fluid flow system is constant?

A. Pascal's principle

B. Archimedes' principle

C. Bernoulli's principle

D. Hooke's principle

Answer: C. Bernoulli's principle

What is the term for the upward force on an object submerged in a fluid?

A. Pressure

B. Buoyancy

C. Drag

D. Lift

Answer: B. Buoyancy

What is the term for the resistance of a fluid to flow?

A. Viscosity

B. Surface tension

C. Compressibility

D. Reynolds number

Answer: A. Viscosity

Which type of fluid flow occurs when the fluid moves in a chaotic and unpredictable manner?

A. Laminar flow

B. Turbulent flow

C. Transitional flow

D. Viscous flow

Answer: B. Turbulent flow