

8.2.FORCE AND PRESSURE

I. Choose the best answer.

1. If we apply force against the direction of motion of the body, then the body will

- a) stop moving
- b) move with an increased speed
- c) move with a decreased speed
- d) move in a different direction

2. Pressure exerted by a liquid is increased by

- a) the density of the liquid
- b) the height of the liquid column
- c) Both a and b
- d) None of the above

3. Unit of pressure is

- a) Pascal
- b) Nm⁻²
- c) Poise
- d) Both a and b

4. The value of the atmospheric pressure at sea level is

- a) 76 cm of mercury column
- b) 760 cm of mercury column
- c) 176 cm of mercury column
- d) 7.6 cm of mercury column

5. Pascal's law is used in

- a) hydraulic lift
- b) brake system
- c) pressing heavy bundles
- d) All the above

6. Which of the following liquids has more viscosity?

- a) Grease
- b) Water
- c) Coconut oil
- d) Ghee

7. The unit of viscosity is

- a) Nm²
- b) poise
- c) kgms⁻¹
- d) No unit

II. Fill in the blanks.

1. The pressure of a liquid column _____ with the depth of the column.

2. Hydraulic lift works under the principle of _____.

3. The property of _____ of a liquid surface enables the water droplets to move upward in plants.

4. A simple barometer was first constructed by _____.

III. State true or false.

1. Force acting on a given area is called pressure. **TRUE / FALSE**

2. A moving body comes to rest due to friction alone. **TRUE / FALSE**

3. A body will sink if the weight of the body is greater than the buoyant force. **TRUE / FALSE**

4. One atmosphere is equivalent to 1,00,000 newton force acting on one square metre. **TRUE / FALSE**

5. Rolling friction is slightly greater than the sliding friction. **TRUE / FALSE**

6. Friction is the only reason for the loss of energy. **TRUE / FALSE**

7. Liquid pressure decreases with the decrease of depth. **TRUE / FALSE**

8. Viscosity depends on the pressure of a liquid. **TRUE / FALSE**

IV. Match the following.

a.

Static friction	Viscosity
Kinetic friction	Least friction
Rolling friction	Objects are in motion
Friction between the liquid layers	Objects are sliding
Sliding friction	Objects are at rest

b.

Barometer	reduce friction
Increasing area of contact	Atmospheric pressure
Decreasing area of contact	cause of friction
Lubricants	increases friction
Irregular surface	decreases friction