



ST. LAWRENCE HIGH SCHOOL



A JESUIT CHRISTIAN MINORITY INSTITUTION

Subject- Physics
Date -24.04.2020

Answers of Worksheet- 24

Class – IX

- Chapter- Pressure in solid, liquids and gases

- Answer the following questions (MCQ) :

(1×15):

1. A pitot tube is used to measure

- A. density
- B. Pressure
- C. viscosity
- D. Tension
- E. force

Answer B. pressure.

2. The thickness of a sharp crested weir is kept less than

- A.** one-third of the height of water on the sill
- B.** one-half of the height of water on the sill
- C.** one-fourth of the height of water on the sill
- D.** two-third of the height of water on the sill
- E.** none of these.

Answer B.

3. The maximum vacuum created at the summit of a syphon is

- A.** 2.7 m of water

B. 7.4 m of water

C. 5.5 m of water

D. none.

Answer B.

4. If the atmospheric pressure on the surface of an oil tank (sp. gr. 0.8) is 0.1 kg/cm^2 , the pressure at a depth of 2.5 m, is

A. 1 metre of water

B. 2 metres of water

C. 3 metres of water

D. 3.5 metres of water

E. 4.0 metres of water.

Answer: Option C

5.

.A water tank partially filled with water is being carried on a truck moving with a constant horizontal acceleration. The level of the water

A rises on the front side of the tank
.

B falls on the back side of the tank
.

C remains the same at both sides of the tank
.

D rises on the back side and falls on the front side
.

E none of these.
.

Answer: Option D

6. A rectangular channel 6 m wide and 3 m deep and having a bed slope as 1 in 2000 is running full. If Chezy's constant $C = 54.8$, pick up the correct specification of the channel from the following :

A. hydraulic mean depth = 1.5 m

B. Velocity of flow = 1.5 m/sec

C. Rate of flow = 27 m³/sec

D. All the above.

Answer: Option D.

7.. Non-over flow double curvature concrete arch, is provided in

A. Bhakra dam

B. Hirakund dam

C. Nagarjuna Sagar dam

D. Idukki dam.

Answer: Option D

8..Atmospheric pressure varies with

A altitude
.

B temperature
.

C weather conditions
.

D all of the above.
.

Answer: Option D

9. The magnitude of water hammer in a pipe depends upon

- [A.](#) speed at which valve is closed
- [B.](#) length of the pipe line
- [C.](#) elastic properties of the pipe material
- [D.](#) elastic properties of the flowing liquid
- [E.](#) all the above.

Answer: Option E

10. If velocities of fluid particles vary from point to point in magnitude and direction, as well as from instant to instant, the flow is said to be

- [A.](#) laminar
- [B.](#) turbulent flow
- [C.](#) uniform flow
- [D.](#) non-uniform flow.

Answer: Option B

11. The rise of the liquid along the walls of a revolving cylinder above the initial level, is

- [A.](#) greater than the depression of the liquid at the axis of rotation
- [B.](#) lesser than the depression of the liquid at the axis of rotation
- [C.](#) the same as the depression of the liquid at the axis of rotation
- [D.](#) none of these.

Answer C.

12. Fluids change the volume under external pressure due to

- [A.](#) plasticity
- [B.](#) viscosity
- [C.](#) compressibility
- [D.](#) none of these.

Answer: Option C

13.

In flowing liquids pitot tubes are used measure

- [A](#) discharge
- [B](#) pressure
- [C](#) velocity
- [D](#) depth.

Answer: Option C

14. Capillary rise of water is

- [A.](#) directly proportional to surface tension
- [B.](#) inversely proportional to water density
- [C.](#) inversely proportional to diameter of the tube
- [D.](#) All of these.

Answer: Option D

15. The dimensional formula of force is

- A. MLT^{-2}
- B. $M^{-1}LT^2$
- C. $ML^{-2}T$
- D. $M^{-1}L^2T^{-2}$
- E. none of these.

Answer A.

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