

Weekly Homework
9th Week

الإدارة المركزية للتعليم العام
إدارة تنمية مادة العلوم



2026

Integrated Sciences

1st Secondary
First Term

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Choose the correct answer:

1) Which of the following can flow and take the shape of the container?

- a. solid and liquid b. solid and gaseous
c. liquid and gaseous d. solid, liquid and gaseous

2) Which of the following can be compressed easily?

- a. Solids b. Gases
c. Liquids d. Solids, liquids and gases

3) Which of the following are measuring units of the pressure?

- a. N/m^2 and Joule b. N/m^2 and atm c. Joule and atm d. N/m^2 , Joule, and atm

4) $2.5 \text{ atm} = \dots\dots\dots \text{N/m}^2$

- a. 2.53×10^4 b. 1.013×10^4
c. 1.013×10^5 d. 2.53×10^5

5) If the pressure at a point inside liquid equal to $4.052 \times 10^5 \text{ N/m}^2$, then it is equivalent to

- a. 1 atm b. 2 atm
c. 3 atm d. 4 atm

6) Water pressure increases by approximately for every 10 m below the surface

- a. 1 N/m^2 b. 10 N/m^2
c. 1 atm d. 10 atm

7) Some animals can dive to a depth of 0.5 km. What is the total pressure they can withstand at this depth?

- a) 0.5 atm b) 1.5 atm c) 50 atm d) 51 atm

8) Which has the greatest effect on increasing the pressure at a point inside a static liquid?

A) Increasing the surface area of the liquid.

B) Increasing the density of the liquid.

C) Increasing the viscosity of the liquid.

D) Increasing the temperature of the liquid.

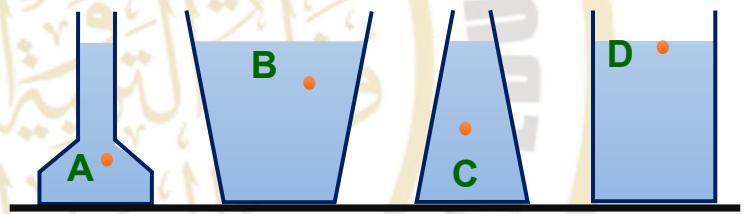
9) If a set of containers are filled with water as shown in the figure, the correct order of points A, B, C, D according to pressure is?

a) $P_A > P_B > P_C > P_D$

b) $P_D > P_C > P_B > P_A$

c) $P_A > P_C > P_B > P_D$

d) $P_D > P_B > P_C > P_A$



10) What is the importance of the unsaturated fatty acids in the composition of cell membranes of deep-sea fish?

A) Increases the rigidity of the membranes.

B) Maintains the fluidity of the membranes.

C) Increases the permeability of the membranes.

D) Reduces the surface area of the membranes.

Essay Questions

1) Give reason:

1- Rays fish don't have swim bladders.

2- Deep-sea fish have developed unique adaptations in their cell membranes to withstand the immense pressure at great depths.

2) How do adaptations in cellular membranes help organisms withstand high water pressure?

3) Compare between: Bony fish (Osteichthyes) and Cartilaginous fish (Chondrichthyes)

Concerning to: The type of its skeleton

Its weight

Its flexibility

Examples

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2025-2026

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Group (A)

1) Fluids include substances.

- a. solid and liquid b. solid and gaseous
c. liquid and gaseous d. solid, liquid and gaseous

2) A liquid has a pressure at any point inside it equal to the of the liquid column above that point acting on the unit area of that point.

- a. density b. volume c. weight d. mass

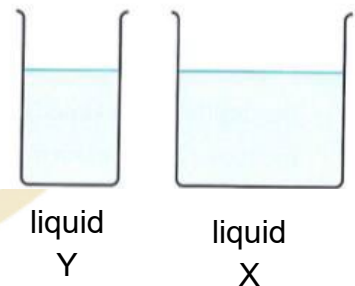
3) $2 \text{ atm} = \dots\dots\dots \text{ N/m}^2$

- a. 5.065×10^4 b. 2.065×10^4 c. 1.013×10^5 d. 2.026×10^5

4) What is the main advantage of the cartilaginous skeleton in fish like sharks?

- a) It provides greater strength.
b) It provides greater flexibility.
c) It makes the fish heavier.
d) It provides no special advantage.

5) The diagram shows two containers with different liquids. If we know that the density of liquid X is greater than that of liquid Y. When the height of the two liquids is held constant as shown, which of the two liquids exerts on the base of its container with more pressure? Why?



Group (B)

1) All the following are properties of the gaseous substance except

- a. the ability to flow b. has definite volume
- c. to compress easily d. takes the shape of the container

2) Which of the following relations correctly expresses the pressure?

- a. $P = F.A$ b. $P = \frac{A}{F}$
- c. $P = \frac{F}{A}$ d. $P = \frac{1}{2} F.A$

3) If the pressure at a point inside liquid equal to $3.039 \times 10^5 \text{ N/m}^2$, then it is equivalent to

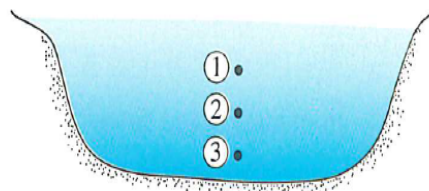
- a. 1 atm b. 2 atm c. 3 atm d. 4 atm

4) What is the main function of the swim bladder in fish that live at intermediate depths?

- a) Produces heat to maintain body temperature.
- b) Helps in digestion.
- c) Controls buoyancy.
- d) Stores oxygen for respiration.

5) The diagram shows three points (1), different depths below the surface of

Rank the pressure exerted at each point pressure to highest pressure.



(2), and (3) at the water.

from lowest



Group (C)

1) All the following are properties of the liquids except

- a. no ability to flow b. has almost definite volume
- c. resists compression d. takes the shape of the container

2) Which of the following is a measuring unit of pressure?

- a. N/m^2 b. N c. N/m d. N/m^3

3) If the pressure at a point inside liquid equal to 151950 N/m^2 , then it is equivalent to

- a. 0.5 atm b. 1.5 atm
- c. 2.5 atm d. 3.5 atm

4) How do fish living at great depths adapt to high pressure?

- A) By increasing the size of their swim bladder.
- B) By reducing the density of their bodies.
- C) By increasing their heart rate.
- D) By increasing the size of their gills.

5) Explain:

The organisms that live near the water surface have physical or body structure is less strong than those that live in the depths.