


اسم :	رقم الجلوس :
 <p>منصة الاختبارات الالكترونية لأبنائنا في الخارج ٢٠٢٥</p>	<p>امتحان مادة : الفيزياء بالإنجليزية للفيف الثاني الثانوى الفصل الدراسي الثاني - ٢٠٢٥</p>

1. A liquid with mass (m) is placed in a container of volume (V) with density (ρ). If the mass of the liquid is increased to ($2m$), what will be the new density?

a	2ρ
b	0.5ρ
c	ρ
d	4ρ

2. A body X with surface area (A) and weight (F_g) is placed on a table, exerting a pressure of 5000 N/m^2 . When an identical body Y is placed on top of X, what will be the new pressure on the table?

a	10000 N/m^2
b	20000 N/m^2
c	2500 N/m^2
d	5000 N/m^2


3. Which of the following statements is true regarding the pressure of a liquid with density (ρ) in an open irregular container?

I. The pressure at a point inside the liquid depends on the height of the liquid column.

II. The liquid pressure is equal in all directions inside the container.

III. The pressure at a point in the liquid depends on the base area of the container.

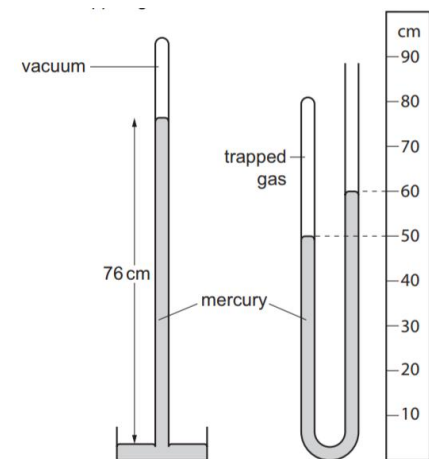
a	I only
b	I and II only
c	II and III only
d	I and III only

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4. A mercury barometer is used to measure the height of a building. The pressure at the ground level is 76 cm Hg, while the pressure at the top is 75 cm Hg. Assuming constant temperature and neglecting air humidity, what is the approximate height of the building? (Given: Air density = 1.236 kg/m^3 , Mercury density = 13600 kg/m^3 , acceleration due to gravity = 10 m/s^2)

a	125 m
b	100 m
c	120 m
d	110 m

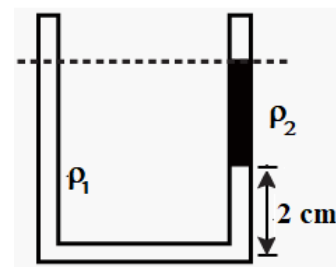
5. The diagram shows a simple mercury barometer next to a mercury manometer containing a trapped gas. What is the pressure of the trapped gas in the manometer?



a	10 cm.Hg
b	50 cm.Hg
c	66 cm.Hg
d	86 cm.Hg

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6. The diagram represents a U-tube with two immiscible liquids, one with density (ρ_1) and the other with density (ρ_2). What is the relationship between ρ_1 and ρ_2 ?



a	$\rho_2 = 1.02 \rho_1$
b	$\rho_2 = 0.98 \rho_1$
c	$\rho_2 = \rho_1$
d	$\rho_2 = 1.2 \rho_1$

7. If the ratio of the radii of the two cylindrical pistons in a hydraulic press in equilibrium is $\frac{2}{7}$, what is the mechanical advantage?

a	$\frac{4}{49}$
b	$\frac{49}{4}$
c	$\frac{2}{7}$
d	$\frac{7}{2}$

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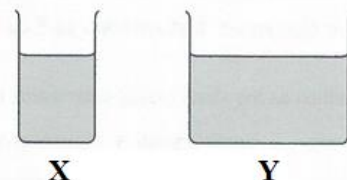
8. An ideal gas has a pressure of 780 mmHg and a volume of 2L. What will its volume be when its pressure increases to 1000 mmHg at constant temperature?

a	1.56 L
b	2.56 L
c	1.26 L
d	2.86 L

9. An ideal gas has a temperature of T on the Kelvin scale at pressure P and volume V. If the gas temperature changes to 0.25T while its volume 0.5V remains constant, what happens to its pressure?

a	Decreases by 0.5 P
b	Increases to 1.5 P
c	Decreases by 0.5 P
d	Decreases to 0.25 P

10. The diagram shows two measuring cylinders, X and Y, both filled with water to the same height. The base area of cylinder X is smaller than that of cylinder Y. Which of the following is correct?



a	The force exerted on the base of X is greater than on Y.
b	The force exerted on the base of X is less than on Y.
c	The pressure of water on the base of X is greater than on Y.
d	The pressure of water on the base of X is less than on Y.

(انتهت الاسئلة)