

<b>Name of Student</b>	<b>Class</b>	<b>Subject</b>	<b>Board</b>	<b>Chapter</b>
	9 <sup>th</sup>	Physics	FB	07
<b>Date :</b>	<b>Objective</b>			<b>Teacher Remarks</b>

**Section - A**

**Q. No.1:- Circle the correct option. Each part carries one mark.**

01	In which of the following state molecules do not leave their position?						
a	Solid	b	Liquid	c	Gas	d	Plasma
02	Which of the substances is the lightest one?						
a	Copper	b	Mercury	c	Aluminum	d	Lead
03	SI unit of pressure is Pascal, which is equal to:						
a	$10^4\text{Nm}^{-2}$	b	$1\text{Nm}^{-2}$	c	$10^2\text{Nm}^{-2}$	d	$10^3\text{Nm}^{-2}$
04	What should be the approximate length of a glass tube to construct a water barometer:						
a	0.5 m	b	1 m	c	2.5 m	d	11 m
05	According to Archimedes up thrust is equal to:						
a	Weight of displaced liquid	b	Volume of displaced liquid	c	Mass of displaced liquid	d	None of these
06	The density of a substance can be found with the help of:						
a	Pascal's law	b	Hooke's law	c	Archimedes principle	d	Principle of floatation
07	At sea level, the atmospheric pressure is about:						
a	$101.300\text{Nm}^{-2}$	b	$101.200\text{Nm}^{-2}$	c	$101.100\text{Nm}^{-2}$	d	$101.400\text{Nm}^{-2}$
08	A wooden block measuring $40\text{cm} \times 10\text{cm} \times 5\text{cm}$ has a mass 850g. the density of wood is _____						
a	$423\text{kgm}^{-3}$	b	$425\text{kgm}^{-3}$	c	$424\text{kgm}^{-3}$	d	$426\text{kgm}^{-3}$
09							
a		b		c		d	
10							
a		b		c		d	
11							
a		b		c		d	
12							
a		b		c		d	

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**Section - B**

**Q. No.1:- Attempt any eleven parts. The answer of each part should not exceed 3 to 4 lines. (11×3=33).**

01	Write down the density equations?	02	Differentiate between stress and strain?
03	It is easy to remove air from a balloon but it is very difficult to remove air from a glass bottle. Why?	04	A cube of glass of 5cm side and mass 306g, has a cavity inside it. If the density of glass is 2.55 gcm <sup>-3</sup> . Find the volume of the cavity.
05	What does it mean when the atmospheric pressure at a place fall suddenly?	06	State relation for pressure beneath a liquid surface to depth and to density?
07	What is meant by elasticity?	08	Calculate the density of 5 liter of water?
09	What is Hooke's law?	10	Describe briefly about matter?
11	A student presses her palm by her thumb with a force of 75 N. how much would be the pressure under her thumb having contact area 1.5cm <sup>2</sup> ?	12	Can we use a hydrometer to measure the density of milk?
13	Define the term pressure.	14	What is meant by density? What is its SI unit?

**Q. No.4:- Attempt any TWO questions. All questions carry equal marks: (2×10=20)**

Q. No.1:- (a).State Archimedes principle.

(b).A steel wire of cross-sectional area  $2 \times 10^{-5} \text{m}^2$  is stretched through 2 mm by a force of 4000N. Find the Young's modulus of the wire. The length of the wire is 2 m.

Q. No.2:- (a).State Pascal's law.

(b).The diameter of the piston of a hydraulic press is 30cm. how much force is required to lift a car weighing 20000 N on its piston if the diameter of the piston of the pump is 3 cm?

Q. No.3:- (a).What is a barometer? Why water is not suitable to be used in a barometer?

(b).A uniform rectangular block of wood  $20\text{cm} \times 7.5 \times 7.5\text{cm}$  and of mass  $1000\text{ g}$  stands on a horizontal surface with its longest edge vertical. Find:

A: The pressure exerted by the block on the surface      B: Density of the wood