CLASS: XI	**INDIAN SCHOOL MUSCAT** **SECOND PERIODIC TEST**	SUBJECT : PHYSICS
	SET - A	
QP.NO.	VALUE POINTS	SPLIT UP MARKS
1.	$Y_S > Y_{cu}$	1
2.	Broad handles have larger area. So the pressure exerted on the hand will be small.	1
3.	Definition of coefficient of viscosity of a liquid.	1
4.	At particular point of flow of liquid, velocity of every particle of liquid is constant.	1
5.	When a fast moving train crosses the platform, the air dragged along with the train also moves with high velocity, the pressure in the region of high velocity gets decreased. If a person stands near the edge of platform, he may be pushed towards the train due to high pressures outside.	1
6.	v = 0.01% of V $v/V = 10^{-4}$ $k = \frac{P}{v/V} = (100 \times 1 \times 10^5)/10^{-4} = 1 \times 10^{11}$ N/m^2	 1 1
7.	A = 0.02 m^2 , dx = 10^{-3} m , dv = 0.025 m/s η = 120 poise = 12 decapoise $F = \eta A dv / dx$ $= (12 \times 0.02 \times 0.025)/10^{-3} = 6$ N	 ½ ½ 1
8.	Difference between ductile and brittle materials with stress vs strain graphs	1, 1
9.	Definition of terminal velocity Derivation of formula	1 2
10.	Statement of Bernoulli's theorem Proof with diagram	1 ½ , 1½
11.	$a_1 = 8 \times 10^{-4}$ m^2 $v_1 = 1.5/60$ ms^{-1} $a_2 = \pi \times (0.5 \times 10^{-3})^2 \times 40$ m^2 $a_1 v_1 = a_2 v_2$ $v_2 = \frac{8 \times 10^{-4} \times 1.5}{\pi \times 40 \times 60 \times (0.5 \times 10^{-3})^2} = 0.637$ m/s	½ ½ ½ 1½