CLASS:XI	**INDIAN SCHOOL MUSCAT** **SECOND PERIODIC TEST**	SUBJECT: PHYSICS
	SET - C	
QP.NO.	VALUE POINTS	SPLIT UP MARKS
1.	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
2.	At particular point of flow of liquid, velocity of every particle of liquid is constant.	1
3.	Definition of coefficient of viscosity of a liquid.	1
4.	This spreads force due to the weight of the train on larger area and hence reduces the pressure considerably.	1
5.	$Y_S > Y_{cu}$	1
6.	Difference between ductile and brittle materials with stress vs strain graphs	½ , ½ ½ , ½
7.	Energy density $u = ½ \times Y \times (\text{strain})^2$ $= 2.5 \times 10^4$ J/m^3 Elastic potential energy U = Energy density x volume = 0.2 J	 1 1
8.	A = 0.02 m^2 , dx = 10^{-3} m , dv = 0.025 m/s η = 120 poise = 12 decapoise F = η A dv / dx = (12 x 0.02 x 0.025)/ 10^{-3} = 6 N	 ½ ½ 1
9.	$a_1 = 8 \times 10^{-4}$ 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
10.	Definition of terminal velocity Derivation of formula	1 2
11.	Statement of Bernoulli's theorem Proof with diagram	½ ½ , 1½