Roll Number

B

INDIAN SCHOOL MUSCAT
SECOND PERIODIC TEST

PHYSICS

CLASS: XI Sub.Code: 042 TimeAllotted:50mts.

06.01.2019 Max.Marks: 20

GENERAL INSTRUCTIONS:

1. **All questions are compulsory. There are 11 questions in all.**
2. **Question no 1 to 5 carry one mark each.**
3. **Question no 6 to 8 carry two marks each.**
4. **Question no 9 to 11 carry three marks each.**

1.	What does the shape of stress Vs strain graph give?	1
2.	Railway tracks are laid on large sized wooden sleepers. Why?	1
3.	Why two streamlines cannot cross each other?	1
4.	Why two boats moving in parallel directions close to each other get attracted?	1
5.	Define coefficient of viscosity of a liquid.	1
6.	A steel wire of 4.0m is stretched through 2.0mm. The cross-sectional area of the wire is $2.0mm^2$. If Y of steel is $2.0x10^{11}Nm^{-2}$, find (i) the energy density of the wire & (ii) the elastic potential energy stored in the wire.	2
7.	Represent graphically the variation of extension with load in an elastic body. On the graph mark: (a) Hooke's law region (b) Breaking point	2
8.	A metal plate 5 cm x 5 cm rests on a layer of castor oil 1 mm thick whose coefficient of viscosity is 1.55 Nsm^{-2}. Find the horizontal force required to move the plate with a speed of $2cms^{-1}$.	2
9.	Eight rains drops of radius 1mm each falling down with terminal velocity of 5 m/s coalesce to form a bigger drop. Find the terminal velocity of the bigger drop.	3
10.	State Stokes's law. Derive this law by method of dimensions.	3
11.	State and prove Bernoulli's theorem.	3

End of the Question Paper