Roll Number

C

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.	Why it is dangerous to stand near the edge of the platform when a fast train is crossing it?	1
2.	What do you mean by a streamline flow of liquid?	1
3.	Define coefficient of viscosity of a liquid.	1
4.	Railway tracks are laid on large sized wooden sleepers. Why?	1
5.	Why are springs made of steel and not copper?	1
6.	On the basis of stress-strain curve, distinguish between ductile and brittle materials.	2
7.	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
8.	A metal plate of area 0.02 m^2 is lying on a liquid layer of thickness 10^{-3} m and coefficient of viscosity 120 poise. Calculate the horizontal force required to move the plate with speed of 0.025 ms^{-1}.	2
9.	The cylindrical tube of a spray pump has a cross-section of 8.0 cm^2, one end of which has 40 fine holes each of diameter 1.0 mm. If the liquid flow inside the tube is 1.5 m/min. What is the speed of ejection of the liquid through the holes?	3
10.	Define terminal velocity and find the expression for the terminal velocity in case of a sphere falling through a viscous liquid such as glycerin.	3
11.	State and prove Bernoulli's theorem.	3

End of the Question Paper