

**CHOITHRAM SCHOOL MANIK BAGH INDORE****CLASS XI Session: 2018-19****Subject: Physics****Allotment Date: 23 /11/18****Assignment No: III****Submission Date: 03/12/18**

S.No	QUESTION	MARKS	LEVEL
<b>OBJECTIVE TYPE</b>			
1.	What is Poisson's ratio?	1	Knowledge
2.	The paints and lubricating oils have low surface tension. Why?	1	Understanding
3.	A tiny liquid drop is spherical but a larger drop has oval shape. Why?	1	hot
<b>SHORT ANSWER TYPE I</b>			
4.	What is venturimeter ? Explain its construction and working?	2	knowledge
5.	If work required to blow a soap bubble of radius $r$ is $W$ , what additional work is required to be done to blow it to a radius $3r$ ?	2	understanding
6.	The breaking force for a wire is $F$ . What will be the breaking force for (a) two parallel wires of the same size (b) for a single wire of double the thickness?	2	logic
7.	If height of water in a tank is $H$ , then at what distances the water will come out from the holes made in the wall of the tank at distances $H/4$ and $3H/4$ from the upper level of water fall?	2	Hot
<b>SHORT ANSWER TYPE II</b>			
8.	Define terminal velocity. Derive the expression for the terminal velocity of a sphere falling through a liquid. What is the terminal velocity of a body in a freely falling system?	3	understanding
9.	A wooden cylinder floating on the water in a beaker which is placed in a lift. When the lift is at rest, $1/3$ of the volume of wood is exposed above the water. The lift now moves up with an acceleration equal to $g/2$ . What is the fraction of the volume exposed now?	3	Multi conceptual
10.	When the tension in a metal wire is $T_1$ , its length is $l_1$ , When the tension is $T_2$ , its length is $l_2$ Find the natural length of the wire.	3	Evaluation
11.	State Bernoulli's theorem. Prove that the total energy possessed by a flowing ideal liquid is conserved. Why cars and aeroplanes are streamlined	5	Logic
12.	A U-tube of uniform cross-section is partially filled with liquid I. Another liquid II which does not mix with liquid I is poured into one side. It is found that the liquid levels of the two sides of the tube are same, while the level of liquid I has risen by 2 cm. If the specific gravity of liquid I is 1.1 what is the specific gravity of liquid II.	5	Hot