**CLASS - XI PHYSICS**
**Physical World & Measurement**

1. What is the difference between $A^o$ and A.U.? [1]

2. Define S.I. unit of solid angle? [1]

3. Same physical quantities whose units are electron volt and pascal? [1]

4. When a planet X is at a distance of 824.7 million kilometers from earth its angular diameter is measured to be $35.72''$ of arc. Calculate the diameter of 'X'. [2]

5. A radar signal is beamed towards a planet from the earth and its echo is received seven minutes later. Calculate the velocity of the signal, if the distance between the planet and the earth is $6.3 \times 10^{10}$m? [2]

6. Give two methods for measuring time intervals? [2]

7. Find the dimensions of latent heat and specific heat? [2]

8. in Vander Waal's equation $\left(\frac{P+a}{V^2}\right)(V-b) = RT$ [2]

9. E, m, l and G denote energy, mass, angular momentum and gravitational constant respectively. Determine the dimensions of $EL^2 / m^5G^2$ [2]

10. (a) State which of the following are dimensionally current [3]

    (i) Pressure = Energy per unit volume

    (ii) Pressure = Momentum $\times$ volume $\times$ time

    (b) The density of cylindrical rod was measured by the formula:- $P = \frac{4m}{\pi D^2 l}$

    The percentage in m, D and l are 1%, 1.5% and 0.5%. Calculate the % error in the calculated value of density?