JYOTI PUBLIC SCHOOL, DHORKA

Holiday Homework

ASSIGNMENT, (2018-19)

CLASS – 11th **SUB-Physics.**

General Instructions:-

- ★ All questions are compulsory.
- ★ Students are required to do this Holiday home work / Assignment in A4 Size paper .

Q1. Write the dimensional formulas for the following physical quantities
(i) Gravitational constant
(ii) Power
(iii) Young's modulus
(iv) co-efficient of viscosity
(v) Surface tension
(vi) Plank's constant

Q2.By the use of dimensions show that the energy per unit Volume is equal to the pressure .

Q3. Taking velocity ,time and force as the fundamental quantities .Find the dimension of the mass.

Q4. The density of mercury is 13.6g/cm^3 in CGS system .Find it's value in SI units.

Q5. Find the dimension of a and b in the equation : F = $\boldsymbol{ax + bt^2}$, where F is force ,x is distance and t is time .

Q6. Find the dimension of a ,b and c in the equation-----

$$V = \boldsymbol{at} + \frac{\boldsymbol{b}}{\boldsymbol{t}} + \boldsymbol{C}$$

Q7. drive the relation using dimension formulas :-
The velocity ν of a Wave along a plucked string depends on the tension 'T' in the string it's length '$\boldsymbol{\ell}$' and the mass 'm' of the string .

Q8. In an experiment to determine the value of young's modulus of electricity of steel wire using the formula y = mlg/r^{2}e, the percentage errors in measurements of m, l, r and e were 2% , 1% , 2% , 1% respectively. Find the percentage error in y .

Q9. Distinguish between the term precision and accuracy of measurement .

Q10. Add 7.21, 12.141 and 0.0028 and express the result to an appropriate Number of significant figure .

Q11. Determine the density of sphere if it's radius $\boldsymbol{r = (2.540 \pm 0.005)}$ c.m. and mass $\boldsymbol{m = (27.5 \pm 0.5)}$ g. Take ($\boldsymbol{\Pi = 3.14}$)

Q12. The diameter of a circle 1.06m . Calculate the area to an appropriate number of significant figure .

Q13. Drive the kinematic equations of motion by calculus method .

Q14. What do you mean by Absolute error and percentage errors .

Q15 Explain the paralax method for measurements of large distance .