SUMMER VACCATION HOME WORK

CLASS-XI **SUBJECT-PHYSICS**

Answer these questions.

1. Explain the need of measurement in physics.
2. Distinguish between Fundamental and derived units.
3. Define unit. Write the main characteristics of unit. Write the advantages of SI unit over other systems of unit.
4. What are coherent systems of unit?
5. Define light year, parsec and astronomical unit.
6. What do you mean by parallax and parallactic angle? How can you find the distance of moon by parallax method?
7. Describe a method to measure the height of an inaccessible object like a mountain?
8. Describe the method to measure the diameter of moon?
9. What do you mean by dimensions? Write dimensional formula of 25 physical quantities?
10. Convert Newton into dyne and joule into erg using dimensions?
11. Find expression for time-period of a simple pendulum?
12. What is principle of homogeneity?
13. Show the correctness of formula $F=mv^2/r$ dimensionally?
14. What do you mean by error in measurement? Explain different types of error in measurement?
15. What do you mean by absolute error, relative error, mean absolute error and percentage error?
16. How can you estimate the error in following:
    (A) Sum **(B)** Difference **(C)** Product **(D)** Quotient **(E)** Power of different measured quantity.

Numerical of following NCERT Exercises

- 2.1,2.2,2.3,2.5,2.13,2.20,2.26
- 3.1,3.3,3.4,3.5,3.6,3.7,3.8,3.9,3.10,3.14,3.16,3.18,3.23
- 4.8,4.9,4.10,4.11,4.13,4.15,4.25

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