Chapter No. 1

1. The S.I unit of intensity of light is

   a. ampere b. candela c. mole d. joule

2. Significant figures in 0.0010 are

   a. 1 b. 2 c. 3 d. 4

3. The dimensions of viscosity are

   a. $ML^{-1}T^{-1}$ b. $ML^{-1}T^{-2}$ c. $M^2L^{-1}T^{-2}$ d. $M^{-1}LT^{-1}$

5. Solid angle subtended at the centre by a sphere is:

   (A) 2π (B) 4π (C) 6π (D) 8π

6. The percentage uncertainty in measurement of mass and velocity are 2% and 3%. The maximum uncertainty in the measurement of kinetic energy is:

   (A) 11% (B) 8% (C) 6% (D) 1%

7. SI units of pressure are:

   (A) Nm^2 (B) N^2m (C) Nm^{-2} (D)$N^{-2}m$

8. The sum of three numbers, 2.7543, 4.10 and 1.273 upto correct decimal place is:

   (A) 8.12 (B) 8.13 (C) 8.1273 (D) 8.127

9. SI unit of intensity of light is:

   (A) Candela (B) J/m^2 (C) Erg/m^2 (D) N/m

10. Femto means:

    (A) 10^{-15} (B) 10^{-18} (C) 10^{-2} (D) 10^{-12}

11. The dimensions of power are:

    (A) $[ML^2T^{-1}]$ (B) $[ML^2T^{-2}]$ (C) $[ML^2T^2]$ (D) $[ML^2T^1]$

12. The SI units of pressure in terms of base units are:

    (A) kg $m^{-1}s^{-2}$ (B) kg $m^{-1}s^2$ (C) kg m s^2 (D) kg m^2s^2

13. Which of the following is least multiple:

    (A) Pico (B) Femto (C) Nano (D) Atto

14. A light year is distance covered by light in one year. How many meters are there in one light year?

    (A) $9.5x10^{-15}$ m (B) $9.5x10^{15}$ m (C) $9.5x10^{15}$ km (D) $9.5x10^{15}$ cm

15. For the total assessment of uncertainty in the final result obtained by multiplication and division

    (A) Absolute uncertainties are added (B) Fractional uncertainties are added

    (C) %age uncertainties are added (D) errors are added