

CLASS- XI

HOTS QUESTION

Q1 - Explain echo method to find the distance of moon. (3 Marks)

Q2 - If $x = a + bt + ct^2$ where x is in metres and t in seconds, write the units of a , b , c . (3 Marks)

Q3 - Find the expression for centripetal force if it depends upon mass of the body, speed of the body, and the radius of the circular path. (5 Marks)

Q4 - What is atomic mass unit (a.m.u.)? (1 Mark)

Q5 - Which method is used for measuring nuclear sizes? (1 Mark)

Q6 - What is principle of homogeneity in dimensional method? (1 Mark)

Q7 - A quantity has dimensions. Is it necessary it must have a unit? (1 Mark)

Q8 - Why other methods to measure the time is replaced by cesium atom clock. (2 Marks)

Q9- What are errors? Explain two types of errors? (3 Marks)

Q10- Convert 25 Joule into erg. (3 Marks)

Q11 – What will be uncertainty in the density of a cube if uncertainty in mass and length is 2% and 3% respectively? (3 Marks)

Q12- Find the expression for centripetal force if it depends upon mass of the body, speed of the body, and the radius of the circular path. (5 Marks)

Q13 - What is the significance of precision? (1 Mark)

Q14 - Name the error associated with the resolution of the instrument. (1 Mark)

Q15- 2.535×10^2 cm to 1.415×10^3 cm (with regard to significant figures). (2 Marks)

Q16- A potential of $V = (10 \pm 0.1)$ volt is applied across a resistance of (5 ± 0.2) ohm. Find the value of current with error limits. (2 Marks)