

**SIR CV RAMAN COACHING CENTRE ,IDAPPADI,SALEM**

**XL PHYSICS – UNIT 1**

**TOTAL MARK : 30 M**

**DATE: 16.06.2024**

**ANSWER ANY TEN QUESTIONS ( 10 X 3 = 30 M)**

1. Find the dimensional formula **planck's (h) constant**
2. Find the dimensional formula **Gravitational constant (G)**
3. Find the dimensional formula **pressure**
4. Find the dimensional formula **Energy**
5. Find the dimensional formula **power**
6. Check the correctness of the equation  $\frac{1}{2} mv^2 = mgh$  using dimensional analysis
7. Check the correctness of the equation  $F = mv^2 / r$  using dimensional analysis
8. Check the correctness of the equation  $s = ut + \frac{1}{2} at^2$  using dimensional analysis
9. Check the correctness of the equation  $v = ut + at$  using dimensional analysis
10. Check the correctness of the equation  $s = \frac{1}{2} gt^2$  using dimensional analysis
11. Check the correctness of the equation  $v^2 = u^2 + at^2$  using dimensional analysis
12. Find the dimensional formula  **$hC/G$**
13. Check the correctness of the equation  $E = mc^2$  using dimensional analysis

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