Physical quantities are

quantities such as degrees, radians and steradians

quantities such as length, mass, time, electric current, thermodynamic temperature, amount of substance, and luminous intensity

quantities such as pounds, dollars and rupees

//quantities such as kilos, pounds and gallons//

Which of the following pairs has the same dimensions?

specific heat and latent heat

lmpulse and momentum

surface tension and force

moment of lnertia and torque

The dimensions of kinetic energy is

[M2L2T]

**[ML2T]**

[ML2T-2]

[ML2T-1]

A force F is given by F = at + bt3, where t is time. What are the dimensions of a and b?

[ MLT-1] and [MLT0]

[MLT-3] and [ML2T4]

**[MLT-4] and [MLT1]**

[MLT-3] and [MLT-4]

The atmospheric pressure is 106 dyne/cm². What is its value in SI unit?

105 newton/m²

106 newton/m²

**104 newton/m²**

103 newton/m²

In a system of units if force (F), acceleration and time (T) are taken as fundamentals units then the dimensional formula of energy is

[FA2T]

**[FAT2]**

[FA2T]

[FAT]

If force (F), work (W) and velocity (v) are taken as fundamental quantities. What is the dimensional formula of time (T)?

[WFv]

[WFv-1]

**[W-1F-1v]**

[WF-1v-1]

The dimensions of kinetic energy is same as that of

force

**pressure**

work

momentum

Which of the following groups have different dimensions?

Potential difference, EMF, voltage

Pressure, stress, Youngs modulus

**Heat, energy, work done**

Dipole moment, electric flux, electric field

10. [ML-1T-2] is the dimensional formula of

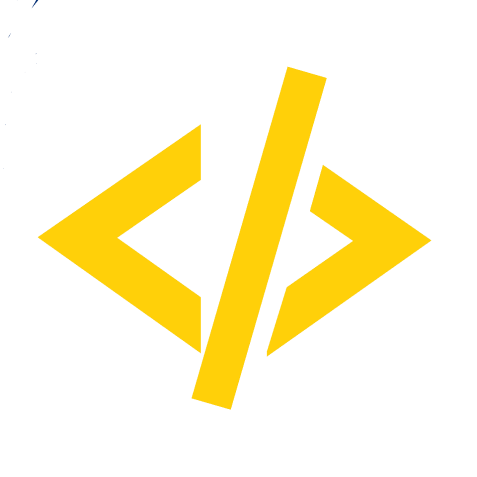
magnetic induction

**self-inductance**

electric potential

electric field

These is a demo question for images as option of mcqs?

Figure1: 

**Figure 2:** 

Figure 3:

Figure 4: 