

SECTION-A

Note:

- 1) Attempting all MCQs is compulsory. This paper along with the OMR sheet must be returned to the superintendent after due time.
- 2) Fill the circle (A)(B)(C)(D), which one is correct with blue or black ball point in separate OMR sheet like
- 3) If more than one circle in the OMR sheet is filled then no credit will be given to such answer.

I.i. A person ascending on the building and reached at 5th floor, then the value of "g" for this situation will be:

- (A) Increasing (B) Decreasing (C) Remained same (D) Zero

ii. An object having weight 120 N lifted through an height of 5 m, work done on object is:

- (A) 24 J (B) 240 J (C) 60 J (D) 600 J

iii. SI unit of energy is:

- (A) newton (B) joule (C) watt (D) pascal

iv. The air surrounds us exert force in:

- (A) Upward direction only (B) Downward direction only (C) Two direction (D) All direction

v. If ΔQ is the change in heat and ΔT is the change in temperature, the heat capacity $C =$

- (A) $\Delta Q \times \Delta T$ (B) $\Delta Q / \Delta T$ (C) $m \Delta Q \times \Delta T$ (D) $m \Delta Q / \Delta T$

vi. The mechanism of transfer of heat in solid is due to:

- (A) Conduction only (B) Convection only (C) Conduction and Convection (D) Conduction and radiation

vii. The pair of derived physical quantities is:

- (A) Current, Temperature (B) Density, Mass (C) Length, Mass (D) Area, Volume

viii. A pigeon flies 20km from nest and moves back to nest, his displacement is:

- (A) 0 km (B) 10 km (C) 20 km (D) 40 km

ix. The property of body to resist the change in its state of rest or motion is called:

- (A) Force (B) Momentum (C) Inertia (D) Imp

x. The force of 10N acting on body of mass 1kg moving along circular path with velocity 2m/s of circular path is:

- (A) 2m (B) 20m (C) 4m (D) 20m

xi. $F_x = 4N$, $F_y = 3N$, $F = ?$

- (A) 3N (B) 4N (C) 5N (D) 7N

xii. When force is applied at the pivot point torque produced will be:

- (A) Maximum (B) Minimum (C) Zero (D) No