

**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. A person ascending on the building and reached at 5<sup>th</sup> 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  $\Delta Q$  is the change in heat and  $\Delta T$  is the change in temperature, the heat capacity is:
  - (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) 40m
- xi.  $F_x=4N, F_y=3N, F=?$ 
  - (A) 3N
  - (B) 4N
  - (C) 5N
  - (D) 6N
- xii. When force is applied at the pivot point torque produced will be:
  - (A) Maximum
  - (B) Minimum
  - (C) Zero
  - (D) None