

Note: There are three sections in this paper i.e. A, B &amp; C.

## Instructions:

- Please attempt Section-A on the MCOs Answer Sheet only.
- Only black ball point or marker may be used for shading the relevant circle.
- Please make sure that there is no cutting, over writing, erasing, or multiple circles shading.

Time Allowed: 20 Minutes

## "Section - A"

Marks: 12

Q.1. Choose the correct option i.e. A, B, C or D.

1. Work done by an elevator is 1200J with a constant force of 400N, distance covered by elevator is:
- (A) 2m (B) 3m (C) 4m (D) 6m
2. A book placed on the top shelf of cupboard possesses:
- (A) Potential energy (B) Chemical energy (C) Kinetic energy (D) Thermal energy
3. Atmospheric pressure increases near the surface of earth because:
- (A) Density of air increases (B) Density of air decreases (C) Temperature decreases (D) Strength of gravity decreases
4. Which one has high specific heat capacity?
- (A) Mercury (B) Glycerin (C) Ethanol (D) Water
5. To increase the speed of free electrons in metals we have to increase its:
- (A) Length (B) Temperature (C) No. of electrons (D) Area of cross section
6. Which of the following is derived physical quantity?
- (A) Acceleration (B) Amount of Substance (C) Electric Current (D) Temperature
7. A car is moving along a curved path, its meter shows 800km/hr which shows its:
- (A) Distance (B) Acceleration (C) Speed (D) Velocity
8. The maximum static friction on a body just before it starts moving is called:
- (A) Limiting friction (B) Sliding friction (C) Kinetic friction (D) Rolling friction
9. The centripetal acceleration of an object moving with speed 8m/s in a circle of radius 4m is:
- (A)  $4\text{ms}^{-2}$  (B)  $8\text{m/s}^2$  (C)  $12\text{m/s}^2$  (D)  $16\text{m/s}^2$
10. The x-component of a force is 20N and Y-component is 15N. What will be the magnitude of force?
- (A) 15N (B) 20N (C) 25N (D) 30N
11. Bottle opener is the practical application of:
- (A) Centripetal force (B) Centrifugal force (C) Torque (D) Momentum
12. The gravitational force 'F<sub>g</sub>' between two objects does not depend on:
- (A) Sum of masses (B) Product of masses (C) Gravitational constant (D) Distance between masses