

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

VERSION: A

## 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: 18

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

- The percentage uncertainty in the measurement of  $(3.76 \pm 0.25)m$  is:  
 A 4%     B 6.6%     C 25%     D 3.76%
- The precision of the measurement 75N is:  
 A 7.5N     B 75N     C 1N     D 10N
- Example of vector product is:  
 A Angular momentum     B Work     C Power     D None of these
- Two or more concurrent forces can be balanced by a single force called.  
 A Resultant force     B Equilibrant force     C Conservative force     D Deforming force
- The time rate of change of linear momentum of an object is called:  
 A Impulse     B Power     C Torque     D Force
- For an ideal projectile, through out its flight, the horizontal component of velocity.  
 A Changes continuously     B Is minimum at highest point     C Remains constant     D Is maximum at highest point
- The efficiency of fluorescent lamp is:  
 A 5%     B 10%     C 15%     D 20%
- When the speed of your car is doubled, by what factor does its kinetic energy increases?  
 A  $\sqrt{2}$      B 2     C 4     D 8
- For a hoop, rolling down the inclined plane of height  $h$ , the expression for velocity at the bottom is:  
 A  $\sqrt{gh}$      B  $\sqrt{2gh}$      C  $\sqrt{\frac{4}{3}gh}$      D  $2gh$
- The time taken by geostationary satellite to orbit the earth is:  
 A 365 days     B 30 days     C 24 hours     D 1 hour
- Venture meter is a device used to measure the:  
 A Mass of fluid     B Viscosity of fluid     C Speed of fluid     D Density of fluid
- The SI unit of spring constant is:  
 A Kgm     B kg/s     C Kg/m     D kg/s<sup>2</sup>
- To make the frequency double of a spring oscillation, we have to:  
 A Reduce the mass to one fourth     B Quadruple the mass     C Double the mass     D Half the mass
- At one atmospheric pressure and 0C<sup>o</sup> temperature speed of sound in air is 332 ms<sup>-1</sup>. The speed of sound in air at two atmospheric pressure and 0C<sup>o</sup> temperature will be:  
 A 332ms<sup>-1</sup>     B 340ms<sup>-1</sup>     C 664ms<sup>-1</sup>     D 350ms<sup>-1</sup>
- If the amplitude of a wave is doubled, then its intensity is:  
 A Doubled     B Halved     C Quadrupled     D One fourth
- For glass of refractive index 1.55, the angle of polarization is:  
 A 55<sup>o</sup>     B 54<sup>o</sup>     C 57<sup>o</sup>     D 53<sup>o</sup>
- The SI unit of molar specific heat is:  
 A Jkg<sup>-1</sup>k<sup>-1</sup>     B Jmol<sup>-1</sup>k<sup>-1</sup>     C Jmolk<sup>-1</sup>     D Jkg<sup>-1</sup>k
- A real gas can be approximated to an ideal gas at:  
 A Low density     B High pressure     C High density     D Low temperature