

Note: You have four choices for each objective-type question as A, B, C and D. The choice which you think is correct, fill that circle in front of that question number. Use marker or pen to fill the circles. Cutting or filling two or more circles will result in zero mark in that question. Attempt as many questions as given in objective type question paper and leave other blank.

1. The magnifying power of convex lens of focal length 10cm is:
A) 7 B) 9.6 C) 3.5 D) 11
2. If $AB \sin \theta = AB \cos \theta$ then the angle between $\vec{A}$ and $\vec{B}$ is:
A) 30° B) 45° C) 60° D) 180°
3. As the speed of object moving through a fluid increases then the drag force experienced by it:
A) increases B) decreases C) remains constant D) becomes zero
4. In a Michelson Interferometer by moving the mirror through a distance of $\lambda/4$, the path difference changes by:
A) $\frac{\lambda}{4}$ B) $\frac{\lambda}{2}$ C) λ D) 2λ
5. The ratio of moment of inertia of disc and hoop is:
A) $\frac{1}{4}$ B) $\frac{1}{2}$ C) $\frac{3}{4}$ D) $\frac{3}{2}$
6. _____ has the same dimensions.
A) work and power B) momentum and energy
C) work and torque D) power and pressure
7. The louder the sound, the greater will be its:
A) wavelength B) amplitude C) speed D) frequency
8. If the resultant of two vectors each of magnitude 'F' is also of magnitude 'F' then the angle between them will be:
A) 30° B) 60° C) 90° D) 120°
9. _____ is derived unit.
A) candela B) ampere C) kelvin D) newton
10. At constant temperature, if pressure is halved then its volume is:
A) constant B) halved C) four times D) doubled
11. _____ is non-conservative force.
A) electric force B) magnetic force C) gravitational force D) frictional force
12. Change in entropy of reversible process is:
A) positive B) negative C) zero D) maximum
13. The total energy of mass-spring system is independent of:
A) mass of the body B) amplitude
C) spring constant D) nature of material of spring
14. Pull of earth on a mass of 10 Kg on the surface of the earth is:
A) 95 N B) 96 N C) 97 N D) 98 N
15. One radian is equal to:
A) 77.3° B) 67.3° C) 57.3° D) 47.3°
16. Pascal is the unit of:
A) pressure B) force C) tension D) weight
17. Distance between two adjacent crests and troughs is:
A) λ B) $\frac{\lambda}{2}$ C) $\frac{\lambda}{4}$ D) 2λ