

EXAM PATTERN QUESTIONS

AIIMS 2020 PHYSICS

AIIMS 2020 CRASH COURSE

AIIMS 2020 crash course provides a preparation strategy & direction, a speedy revision and getting a high score for AIIMS 2020 in 30-60 days. It is a focused course for the AIIMS aspirant's full preparation through a final mock test with important exam pattern, solving past questions and emphasize on the formulas to crack the AIIMS 2020 exam.

Important problem-solving and revision of all important topics with the last 7 years AIIMS analysis. Providing problem-solving tips and tricks for the exam. 100% AIIMS pattern questions with detailed solutions. Those questions are the focus on chapter with a high weight. Misconceptions and repeated errors are cleared by the faculties. The questions of complete syllabus designed by the experienced Misostudy faculty team. Boosts confidence of students so that they can score well.

1. Relation between magnetic moment and angular velocity is :
 - (a) $M \propto \omega$
 - (b) $M \propto \omega^2$
 - (c) $M \propto \sqrt{\omega}$
 - (d) $M \propto \omega^3$
2. If a vector $2\hat{i} + 3\hat{j} + 8\hat{k}$ is perpendicular to the vector $4\hat{i} + 4\hat{j} + \alpha\hat{k}$, then value of α is :
 - (a) -1
 - (b) $\frac{1}{2}$
 - (c) $-\frac{1}{2}$
 - (d) 1
3. The ratio of the dimensions of Planck's constant and that of the moment of inertia is the dimensions of :
 - (a) Frequency
 - (b) Velocity
 - (c) Angular momentum
 - (d) Time

4. A ball is dropped from the top of a building 100 m high. At the same instant another ball is thrown upwards with a velocity of 40 m/s from the bottom of the building. The two balls will meet after :
- 13 s
 - 2 s
 - 2.5 s
 - 5 s
5. A stone falls freely under gravity. It covers distances h_1 , h_2 and h_3 in the first 5s, the next 5s and the next 5s respectively. The relation between h_1 , h_2 and h_3 is :
- $h_1 = 2h_2 - 3h_3$
 - $h_1 = h_2/3 = h_3/5$
 - $h_2 = 3h_1$ and $h_3 = 3h_2$
 - $h_1 = h_2 = h_3$
6. A particle is projected from the ground with an initial speed of 'v' at angle θ with horizontal. The average velocity of the particle between its point of projection and highest point of trajectory is :
- $\frac{v}{2} \sqrt{1+2\cos^2\theta}$
 - $\frac{v}{2} \sqrt{1+\cos^2\theta}$
 - $\frac{v}{2} \sqrt{1+3\cos^2\theta}$
 - $v \cos \theta$
7. A gun of mass 10 kg fires 4 bullets per second. The mass of each bullet is 20 g and the velocity of the bullet when it leaves the gun is 300 m s^{-1} . The force required to hold the gun during firing :
- 6 N
 - 8 N
 - 24 N
 - 240 N
8. A heavy truck moving with a velocity of 60 km h^{-1} collides with a light drum at rest. If the collision be elastic, then the velocity of the drum immediately after collision will be :
- 20 km h^{-1}
 - 60 km h^{-1}
 - 120 km h^{-1}
 - 12 km h^{-1}