CLASS 11 PHYSICS REVISION NOTES

Class 11 Physics Chapter 6 System of Particles and Rotational Motion – Revision Notes

Quick revision notes for Class 11 Physics Chapter 6 (System of Particles and Rotational Motion). These Class 11 Physics Chapter 6 notes are ideal for quick revision just before exams.

Contents

Quick revision notes for Class 11 Physics Chapter 6 (System of Particles and Rotational Motion). These Class 11 Physics Chapter 6 notes are ideal for quick revision just before exams.

Key Concepts

Centre of mass: $X_{cm}=\Sigma mx/\Sigma m$.

Torque: $\tau=r\times F$.

Angular momentum: $L=I\omega$; $\tau=dL/dt$.

Moment of Inertia

Sphere: $(2/5)MR^2$; Cylinder: $(1/2)MR^2$; Rod (centre): $(1/12)ML^2$.

Parallel axis: $I=I_{cm}+Md^2$. Perpendicular axis: $I_z=I_x+I_y$.

Conservation and Rolling

Angular momentum conserved when net torque=0.

Rolling KE=$\frac{1}{2}Mv^2+\frac{1}{2}I\omega^2$.

One-Line Summary

Rotational motion is described using torque, angular momentum, and moment of inertia, with angular momentum conserved in the absence of external torque, analogous to linear momentum conservation.

Class 11 Physics Chapter 6 – Solutions and Important Questions

Need full answers or more practice? See the Class 11 Physics Chapter 6 Solutions and Class 11 Physics Chapter 6 Extra Questions.

See also: Chapter 1 | Chapter 2 | Chapter 3 | Chapter 4 | Chapter 5 | Chapter 6

Practice more: Chapter 1 | Chapter 2 | Chapter 3 | Chapter 4 | Chapter 5 | Chapter 6

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