1. M.I of a uniform circular disc about a diameter is I. It's M.I about an axis perpendicular to its plane and passing through a point on its rim is

(a) 5I (b) 3I (c) 6I (d) 4I

2. A hoop of mass M and radius R is suspended on a peg in the wall. It's M.I about the peg is

(a) $2MR^2$ (b) MR^2 (c) $\frac{1}{2}MR^2$ (d) $\frac{3}{2}MR^2$

3. M.I of a uniform rod of mass m and length L about an axis through a point on the rod at a distance L/4 from one end and perpendicular to its length is

(a) $\frac{7}{36}mL^2$ (b) $\frac{7}{48}mL^2$ (c) $\frac{11}{48}mL^2$ (d) $\frac{1}{12}mL^2$

4. Three point masses each of mass m are placed at the corners of an equilateral triangle of side L. M.I of this system about an axis along one side of the triangle is

(a) $3mL^2$ (b) $\frac{3}{2}mL^2$ (c) mL^2 (d) $\frac{3}{4}mL^2$

5. M.I of a circular loop of mass m and radius R about an axis parallel to the horizontal diameter at a distance of R/2 from it is

(a) mR^2 (b) $\frac{1}{2}mR^2$ (c) $2mR^2$ (d) $\frac{3}{4}mR^2$

6. M.I of a solid sphere of mass m and radius R about an axis tangential to its surface is

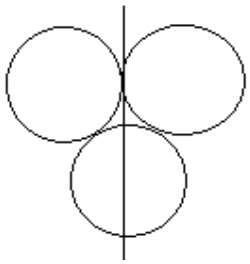
(a) $\frac{2}{3}mR^2$ (b) $\frac{2}{5}mR^2$ (c) $\frac{7}{5}mR^2$ (d) $\frac{5}{3}mR^2$

7. The M.I of a circular disc about one of its diameters is I. What is the M.I about a tangent parallel to its diameter?

(a) 4I (b) 2I (c) 3I (d) $\frac{3}{2}I$

8. A solid sphere of radius R has M.I about its diameter equal to I. What is the M.I of a shell of same mass and same radius about its diameter?

(a) $\frac{3}{3}I$ (b) $\frac{5}{3}I$ (c) $\frac{2}{3}I$ (d) $\frac{2}{5}I$

9.  Three rings of mass P and radius Q are arranged as shown in the figure. The M.I of the arrangement about the vertical line shown is

(a) $\frac{7}{2}PQ^2$ (b) $\frac{2}{5}PQ^2$ (c) $\frac{5}{2}PQ^2$ (d) $\frac{2}{7}PQ^2$

10. Two uniform rods each of mass m and length L are placed along X and Y axis with one end of each at the origin. M.I of the system about the Z-axis is

(a) $\frac{3}{2}mL^2$ (b) $\frac{2}{3}mL^2$ (c) $2mL^2$ (d) Zero