Seven identical circular planar disks, each of mass M and radius R are welded symmetrically as shown. The moment of inertia of the arrangement about the axis normal to the plane and passing through the point P is

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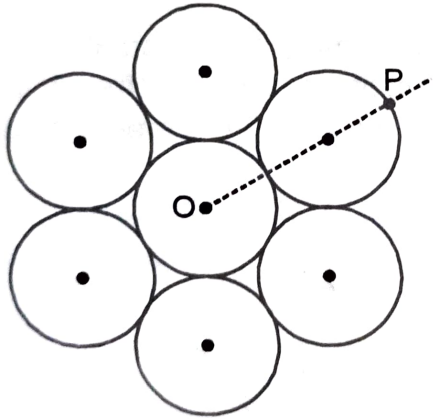

(A) $\frac{19}{2}MR^2$ (B) $\frac{55}{2}MR^2$ (C) $\frac{73}{2}MR^2$ (D) $\frac{181}{2}MR^2$

$$I_1 = \frac{1}{2}MR^2 + MR^2 = \frac{3}{2}MR^2$$

$$I_4 = \frac{1}{2}MR^2 + M(3R)^2 = \frac{19}{2}MR^2$$

$$I_7 = \frac{1}{2}MR^2 + M(3R)^2 = \frac{51}{2}MR^2$$

$$I_{net} = I_1 + I_2 + I_3 + I_4 + I_5 + I_6 + I_7$$

$$I_{net} > I_1 + I_4 + I_7$$

$$I_{net} > \frac{73}{2}MR^2$$