

When does a disc rotate with uniform angular velocity, which of the following is not true?

- a. The orientation of the axis of rotation remains same.
- b. The sense of rotation remains same.
- c. The speed of rotation is non-zero and remains same.
- d. The angular acceleration is non-zero and remains same

(d) The angular acceleration is non-zero and remains same

**Explanation:** As disc is rotating with uniform angular velocity,  $\omega$  is constant.

Therefore

Angular acceleration =  $\alpha$

=  $\frac{d\omega}{dt}$  (Differentiation of constant is 0)

= 0

So, its angular acceleration is zero.