

## ECAT Pre General Science Physics Chapter 5 Circular Motion

Sr	Questions	Answers Choice
1	Angular velocity is a:	A. Scalar quantity B. <span style="color: green;">Vector quantity</span> C. Complex quantity D. None of these
2	When angular acceleration is positive, the body rotates:	A. Slower B. Slowest C. <span style="color: green;">Faster</span> D. None of these
3	One radian is equal to:	A. 30.3° B. 45.3° C. 50.3° D. <span style="color: green;">57.3°</span>
4	A rotating wheel accelerates up to the value of 0.75 rev/sec <sup>2</sup> after 2 seconds of its start. Its angular velocity becomes:	A. 9.42 rad/sec B. 2.6 rev/sec C. 1.5 rev/sec D. <span style="color: green;">Both A and C</span>
5	Conventional the angular Velocity is Directed at an angle of:	A. <span style="font-size: 13.3333px;">90°</span> to the axis of rotation B. <span style="font-size: 10.5pt;">30°</span> to the axis of rotation C. <span style="font-size: 10.5pt; color: green;">0°</span> to the axis of rotation D. None of above
6	Conventionally the angular velocity is directed to an angle of:	A. <span style="font-size: 10.5pt;">90°</span> to the axis of rotation B. <span style="font-size: 10.5pt;">30°</span> to the axis of rotation C. <span style="font-size: 10.5pt; color: green;">0°</span> to the axis of rotation D. None of above

repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° to the axis of rotation</span>  
D. None of the above

7	When a body moves with a constant speed in a circle:	A. No work is done on it B. No acceleration is produced in the body C. Velocity remains constant D. None of these
8	Which of the following pairs does not have identical dimensions?	A. Torque and energy B. Energy and work C. Momentum and impulse D. Mass and moment of inertia
9	The useful unit of angular replacement in SI unit is:	A. Degree B. Revolution C. Radian D. Metre
10	The instantaneous acceleration of a body moving with constant speed in a circle:	A. Remains constant B. Is called centripetal acceleration C. Tangential acceleration D. None of these
11	The rear wheels of an automobile are rev/sec which is reduced to 38 rad/sec in 5 seconds when brakes are applied. Its angular acceleration is:	A. $5 \text{ rad/sec}^2$ B. $-10 \text{ rad/sec}^2$ C. $-10 \text{ rad/sec}^2$ D. $-5 \text{ rad/sec}^2$
12	A body can have constant velocity when it follows:	A. A circular path B. A rectilinear path C. Trajectory of a projectile D. None of these
13	When an object moves with a uniform angular velocity, then its instantaneous angular velocity is equal to:	A. Zero B. Its average velocity C. Its angular displacement D. None of these
14	A stone is tied to the end of a 20 cm long string is whirled in a horizontal circle. if centripetal acceleration is $9.8 \text{ m/sec}^2$ , then its angular velocity in rad/sec is:	A. 22/7 B. 7 C. 14 D. 21
15	A rotating body tends to be slower, when its angular acceleration is:	A. Positive B. Negative C. Zero D. Infinity
16	Final velocity of a hoop is _____ the final velocity of a disc having same mass and radius on coming down an inclined plane.	A. Greater than B. smaller than C. Equal to D. None of these
17	The number of "Earth Stations" which transmit signals to satellites and receive signals from them are	A. 3 B. 24 C. 126 D. 200
18	Satellites are held in orbits around Earth by its:	A. Gravitational field B. Magnetic field C. Own orbital motion D. Own spin motion
19	In rotational motion, analogue of force F is called:	A. Couple B. Torque C. Mass D. Moment of inertia
20	A point on the rim of a wheel moves 0.2 m when the wheel turns through an angle of 14.3 degrees. The radius of the wheel is	A. 0.05 m B. 0.08 cm C. 0.8 m D. 0.008 m