

ECAT Physics Chapter 5 Circular Motion

| Qr. | Questions | Anguage Chaica |
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| Sr | Questions | Answers Choice |
| 1 | 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 |
| 2 | A rotating body tends to be slower, when its angular acceleration is: | A. Positive B. Negative C. Zero D. Infinity |
| 3 | Moment of inertia depends upon: | A. Mass B. Selection of axis of rotation C. Both of them D. None of these |
| 4 | The number of "Earth stations" which transmit signals to satellites and receive signals from them are: | A. 3 B. 24 C. 126 D. 200 |
| 5 | The rear wheels of an automobile are rotating with an angular velocity of 14 rev/sec which is reduced to 38 rad/sec in 5 second when brakes are applied. Its angular acceleration is: | A. 5 rad/sec ² B10 rev/sec ² C10 rad/sec ² D5 rev/sec ² |
| 6 | Einstein's theory about gravity if better than Newton's because it gave explanation of: | A. Inverse square law B. Bending of light C. Both A and B D. None of above |
| 7 | Centripetal force performs: | A. Maximum work B. Negative work C. Positive work D. None of these |
| 8 | Direction of motion in circular motion | A. Changes off and on B. Changes continously C. Does not change D. None of them |
| 9 | The center of mass of a sphere lies at: | A. The axis of the sphere B. Circumference of sphere C. Center of the sphere D. None of them |
| 10 | 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 |
| 11 | The useful unit of the angular displacement in SI unit is: | A. Degree B. Revolution C. Radian D. Metre |
| 12 | Conventionally the angular velocity is directed at an angle of | A. 90° to the axis of rotation B. 30° to the axis of rotation C. 0° to the axis of rotation D. None of the above |
| 13 | A body moving along the circumference of a circle of radius R completes one revolution. The radius of a covered path to the angle subtended at the centre is: | A. Radius of the circle B. Twice the radius C. Thrice the radius D. None of these |
| 14 | A car is turning around a corner at 10 m/sec as it travels along an arc of a circle. If value of centripetal acceleration is 10 m/sec ² in this case, find radius of the circular path: | A. 1 m B. 5 m C. 10 m D. 15 m |
| 15 | A stone tied to the end of a 20 cm long string is whirled in a horizontal circle. If centripetal acceleration is 9.8 m/sec ² , then its angular velocity is rad/sec is: | A. 22/7 B. 7 C. 14 |

| | | D. 21 |
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| 16 | Centripetal acceleration is also called acceleration: | A. Tangential B. Radial C. Angular D. None of them |
| 17 | In rotational motion, analogue of force F us called: | A. Couple B. Torque C. Mass D. Moment of intertia |
| 18 | When angular acceleration is positive, the body rotates: | A. Slower B. Slowest C. Faster D. None of these |
| 19 | 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 |
| 20 | Angular momentum is a: | A. vector quantity B. Imaginary quantity C. Complex Quantity D. Scalar Quantity |