ECAT Pre General Science Physics Chapter 5 Circular Motion

Sr	Questions	Answers Choice
1	Direction of motion _____ in circular motion	A. Changes off and on B. Changes continously C. Does not change D. None of them
2	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
3	A body moving along the circumference of a circle of radius R completes one revolution. The radius of the covered path to the angle subtended at the center is:	A. Radius of the circle B. Twice the radius C. Thrice the radius D. None of these
4	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
5	A stone is tied to the end of a 20 cm along string is whirled in a horizontal circle. if centripetal acceleration is 9.8 m/sec^2, then its angular velocity in rad/sec is:	A. 22/7 B. 7 C. 14 D. 21
6	Circular motion is an example of motion in:	A. One dimension B. Two dimensions C. Three dimensions D. None of these
7	A 1000 Kg car travelling with a speed of 90 km/hr turns around a curve of radius 0.1 km. The necessary centripetal force comes out to be:	A. 8.1 X 10⁷N B. 625 N C. 6250 N D. None of these
8	A flywheel accelerates from rest to an angular velocity of 7 rad/sec in 7 seconds. Its average acceleration will be:	A. 49 rad/sec² B. 1 rad/sec² C. 0.16 rev/sec² D. Both A and C E. Both B and C
9	Moment of inertia depends upon:	A. Mass B. Selection of axis of rotation C. Both of them D. None of these
10	In case of planets, the necessary acceleration is provided by:	A. Gravitational force B. Coulomb force C. Frictional force D. None of these
11	INTELSAT operates at frequencies 4, 6, 11, 14 having unit of:	A. KHz B. MHz C. GHz D. BHz
12	Centripetal acceleration is also called _____ acceleration	A. Tangential B. Radial C. Angular D. None of these
		A. 30.3<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° B. 45.3<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial;

13	One radian is equal to:	background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° C. 50.3<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° D. 57.3<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°
14	A disc rolls down a hill and its speed at bottom is found to be 11.4 m/sec. Height of the hill is then nearly:	A. 10 m B. 12 m C. 13 m D. 15 m
15	In rotational motion, analogue of force F us called:	A. Couple B. Torque C. Mass D. Moment of intertia
16	A car is turning around a corner at 10 m/sec as it travels along an arc of 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
17	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
18	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
19	When angular acceleration is positive, the body rotates:	A. Slower B. Slowest C. Faster D. None of these
20	Angular momentum is a:	A. vector quantity B. Imaginary quantity C. Complex Quantity D. Scalar Quantity