MDCAT Physics Chapter 4 Circular Motion MCQ's Test

Sr	Questions	Answers Choice
1	For a particle in uniform circular motion the relation a = r □ of accelerations hold. The acceleration 'a'	A. is centripetal acceleration B. Is tangential acceleration C. is radical acceleration D. both A and B
2	A body revolved around the sun 27 times faster then the earth what is the ratioof their radii	A. 1/27 B. 1/4 C. 1/9 D. 1/3
3	If the radius of the circular path of particle going around the circle is doubled without changing its frequency of rotation, then centripetal force on it is.	A. doubled B. halved C. unchanged D. quadrupled
4	The ratio of angular speeds of minute hand and hour hand of a watch is:	A. 1: 12 B. 6: 1 C. 12: 1 D. 1: 6
5	The force which can do no work on the body on which it acts:	A. Frictional force B. Elastic force C. Gravitational force D. Centripetal force
6	Torque is necessary for producing.	A. angular speed B. linear acceleration C. angular acceleration D. none of these
7	Two artificial satellites of unequal masses are revolving in a circular orbit around the earth with a constant speed. Their time periods:	A. Will be different B. Will depend on their masses C. Will be same D. Will depend upon the place of their projection
8	The kinetic energy of a body rotating with an angular speed □ depends on.	A. angular speed B. distribution of mass C. neither (A) nor (B) D. both (A) and (B)
9	When a particle moves in a circle the angle between it linear velocity and the angular velocity is always	A. 0° B. 180° C. 90° D. none of them
10	A particle revolves round a circular path with a constant speed. The accelerationof the particle is	A. A. A long the circumference of the circle B. Along the tangent C. Along the radius D. Zero
11	A couple produces	A. linear motion B. rotational motion C. both (A) and (B) D. None
12	In uniform circular motion, the factor that remains constant is:	A. Linear velocity B. Acceleration C. Speed D. All of these
13	For a particle in circular motion the centripetal acceleration	A. may be more or less than its tangential acceleration B. equal to its tangential acceleration a C. more than its tangential acceleration D. less than its tangential acceleration
14	SI unit of kinetic energy of rotation is	A. joule second B. joule C. joule second

		D. joule meter
15	The time period of revolution of geostationary satellite is	A. 1440 minutes B. 24 minutes C. 84 minutes D. none of these
16	The angular momentum changes form 2 units to 6 units in 4s. the torque is	A. 1 unit B. 3/2unit C. 1/2unit D. 4unit
17	A particle is moving with constant speed by keeping itself at constant distance from a fixed point in a given plane. Its motion is	A. Circular motion B. Uniform circular motion C. Uniform circular motion with fixed axis of rotation D. Uniform circular motion with axis of rotation not defined
18	A body crosses the topmost point of a vertical circle with critical speed. Itscentripetal acceleration, when the string is horizontal will be	A. 4g B. 3g C. g D. 6g
19	The geostationary satellite is:	A. Stationary B. Rotating very fastly C. Rotating with the period of earth D. Rotating very slowly
20	The force which provides the necessary centripetal force to keep the mud in circular path is called	A. cohesive force B. adhesive force C. frictional force D. gravitational force