MDCAT Physics Chapter 4 Circular Motion MCQ's Test

Sr	Questions	Answers Choice
1	In uniform circular motion, the factor that remains constant is	A. Linear velocity B. Centripetal force C. Acceleration D. speed
2	A point on the rim of wheel 400 cm in diameter has a velocity of 1600 cms-1 . The angular velocity of the wheel is:	A. 6 rad/s B. 4 rad/s C. 2 rad/s D. 8 rad/s
3	If a car moves with a uniform speed of 2 ms-1 in a circle of radius 0.4m. Its angular speed is	A. 4 rad. s⁻¹ B. 1.6 rad. s⁻¹ C. 5 rad. s⁻¹ D. 2.8 ms⁻¹
4	The mud flies off the tyre of a fast moving car in the direction	A. parallel to the moving tyre B. anti parallel to the moving tyre C. tangent to the moving tyre D. none of these
5	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
6	Geo stationary satellite remains	A. Stationary B. Both "A" & "B" C. Appear D. None of them
7	A satellite moving round the earth constitute	A. An inertial frame of reference B. Non inertial frame C. Neither inertial nor non inertial D. Both inertial and non-inertial
8	The angular analogue of linear displacement is called	A. angular velocity B. angular displacement C. angular momentum D. moment of force
9	Which statement about geostationary orbit is false?	A. A geostationary orbit must be directly above the equator B. All satellite in a geostationary orbit must have the same masses C. The period of geostationary orbit must be 24 hours D. There is only one possible radius for a geostationary
10	On slightly disturbing a body which is an unstable equilibrium, its center of gravity	A. rises B. falls C. remains constant D. first rises then falls
11	In uniform circular motion, the factor that remains constant is:	A. Linear velocity B. Acceleration C. Speed D. All of these
12	In case of planets the necessary acceleration is provided by	A. Gravitational force B. coulomb force C. frictional force D. centripetal force
13	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
14	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

15	SI unit of kinetic energy of rotation is	A. joule second B. joule C. joule second D. joule meter
16	Torque is necessary for producing.	A. angular speed B. linear acceleration C. angular acceleration D. none of these
17	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
18	A couple produces	A. linear motion B. rotational motion C. both (A) and (B) D. None
19	A stone attached to one end of a string is revolved around a stick so that the string winds on the stick and gets shortened) What is conserved)	A. angular momentum B. kinetic energy C. linear momentum D. none of the above
20	Ten second after an electric fan is turned on, the fan rotates at 300rev/min. its average angular acceleration is	A. 30 rad/s² B. 3.14 rad/s² C. 30 rev/s² D. 500 rev/s²