

OBJECTIVE TYPE QUESTIONS

Chapter # 5 **TORQUE ANGULAR MOMENTUM** **AND EQUILIBRIUM**

1. Torque is synonymous of:
 (a) A. Angular speed (b) Angular momentum
 (c) Moment of inertia (d) Moment of force
2. The rate of change of angular momentum is called.
 (a) Force (b) Torque (c) Momentum (d) Alt of these
3. The product of force and moment arm is equal to the magnitude
 (a) Momentum (b) Torque
 (c) centripetal force (d) Angular momentum
4. Torque is zero, if angle θ between force and momentum arm is
 (a) 0° (b) 60° (c) 90° (d) 180°
5. The motion of the body can describe by the motion of it's
 (a) Center of gravity (b) Origin
 (c) Center of mass (d) None of these
6. If a body is rotating clock-wise direction, the torque:
 (a) Positive (b) Negative (c) Maximum (d) Minimum
7. The two forces constitute couple are.
 (a) Equal in magnitude (b) Opposite in direction
 (c) Not acting along the same line (d) All of these
8. The centre of gravity of a body of irregular shape lies:
 (a) At its centre (b) At its intersection of medians
 (c) At the intersection of diagonals (d) At the surface of the body
9. The point at which whole weight of the body is concentrated is called.
 (a) Centre of mass (b) Centre of gravity
 (c) Origin (d) Centre of action
10. Torque equals to:
 (a) Mass x acceleration (b) Force x momentum arm
 (c) Force x centre of gravity (d) Mass x mass arm
11. Physical quantity not directly involved in rotational motion is:
 (a) Moment of inertia (b) Mass
 (c) Angular velocity (d) Torque
12. The centre of mass coincides with centre of gravity of body, if it is placed:
 (a) In a non-uniform gravitation field. (b) In a uniform gravitation field
 (c) At the centre of earth (d) At the poles
13. The magnitude of the angular momentum is given by:
 (a) $L = m r \sin \theta$ (b) $L = r p \sin \theta$
 (c) $L = r p \sin \theta$ (d) only A & B
14. The angular momentum of a particle is conserved if the net torque is
 (a) Infinity (b) Zero
 (c) Constant (d) None of these
15. If the net torque acting on a body is zero then the _____ of the body is conserved.
 (a) Force (b) Linear momentum
 (c) Torque (d) Angular momentum
16. According to law of conservation of angular momentum. _____
 (a) $\Gamma = dl$ (b) $\Gamma = dt/dl$ (c) $\Gamma = dt \times dl$ (d) $\Gamma = dl/dt$.
17. A body acted is said to be in equilibrium when it:
 (a) Move with a variable velocity (b) Moves with a uniform velocity
 (c) Moves very fast in space (d) Moves very slow in space
18. A body is said to be in _____ if it is at rest or is moving with uniform velocity.
 (a) Period motion (b) Rotator motion
 (c) Arbitrary motion (d) Equilibrium
19. A body will be in translation equilibrium if the vector sum of external forces acting on a body is
 (a) Maximum (b) Minimum (c) Square (d) Zero
20. If the axis of rotation passes through the body itself the corresponding rotator motion is called the:
 (a) Spin –motion (b) Orbital motion
 (c) Vibratory motion (d) To-and for motion
21. The object in equilibrium may not have any:
 (a) Force acting (b) Acceleration
 (c) Velocity (d) Torque acting upon it

Chapter # 5

1	2	3	4	5	6	7	8	9	10
d	B	b	a	c	b	d	B	b	b
11	12	13	14	15	16	17	18	19	20
b	B	d	b	d	d	b	D	d	a
21									
b									