

OBJECTIVE TYPE QUESTIONS**Chapter # 7****WORK, POWER AND ENERGY**

1. The example of negative work is:
 - (a) Work done under a conservative force
 - (b) Work done perpendicular to a conservation force
 - (c) Work done against friction,
 - (d) Work done against gravity
2. The work done by centripetal force is:
 - (a) Equal to that of centrifugal force.
 - (b) Greater than that of centrifugal force
 - (c) Variable in different cases.
 - (d) Zero
3. Work is defined as
 - (a) Scalar product of force and displacement.
 - (b) Vector product of force and displacement
 - (c) Scalar product of force and velocity
 - (d) Vector product of force and velocity
4. The work done on a body under going a certain displacement is given by:
 - (a) The area under a force vs. time curve
 - (b) The area under a force vs. distance curve
 - (c) The area under a velocity vs time curve
 - (d) The area under an acceleration vs time curve
5. Work is always done in a body when
 - (a) A force action on it
 - (b) It covers some displacement.
 - (c) Force moves it in its direction or in opposite directions
 - (d) The resultant force on its is zero.
6. The work given to the machine is called:
 - (a) Input
 - (b) Output
 - (c) Velocity ratio
 - (d) Mechanical advantage
7. All of them are true accept:
 - (a) Work is defined as the product of force and distance.
 - (b) Joule is the unit of work.
 - (c) Force moves in its direction or in opposite directions.
 - (d) The resultant force on it is zero.
8. Work done will be zero when force and displacement are
 - (a) In the same direction
 - (b) In opposite direction
 - (c) Perpendicular to each other
 - (d) Not zero
9. The energy due the motion of a mass is known as.
 - (a) A. Potential energy
 - (b) Motion energy
 - (c) Mobile energy
 - (d) Kinetic energy
10. The amount of work required to stop a moving object is equal to the:
 - (a) Velocity of the object
 - (b) Kinetic energy of the object
 - (c) Mass of the object times its acceleration
 - (d) Mass of the object times its velocity
11. Power is the dot product of.
 - (a) Mass & velocity
 - (b) Force & velocity
 - (c) Force & Energy
 - (d) Force & mass
12. The sum of kinetic and potential energies of a falling body
 - (a) Is constant at all points.
 - (b) Is maximum in the beging
 - (c) Is minimum in the beginning
 - (d) Is maximum in the middle of the path
13. Potential energy is increased when the work is done,
 - (a) Along the field
 - (b) Against the field
 - (c) By the field
 - (d) All of the above in different cases
14. If the velocity of the moving particle is double the factor by, which the K. E is increased is.
 - (a) 4
 - (b) $\frac{1}{2}$
 - (c) 2
 - (d) 6
15. The heat energy is transferred to a body, it is converted into:
 - (a) Internal energy of the body
 - (b) work done by the body
 - (c) Mass of the molecules
 - (d) Potential energy of the body
16. The tidal energy is due to:
 - (a) The rotation of earth about sun
 - (b) The rotation of earth relative moon
 - (c) The radio active decay inside earth
 - (d) Attraction of sun and moon
17. Energy is:
 - (a) Work divided by time
 - (b) The ability to do work

- (c) Measurable in Horse Power (d) Force divided by distance
18. The work done in moving a object along a vector $= 3i + 2j - 5k$. If the applied force is $F = 2i - j - k$:
 (a) $10j$ (b) $6i - 2j - 5k$ (c) $0j$ (d) $9j$
19. The power required to lift a 40 kg. weight up to the height of 5 m in 10 sec will be
 (a) 80 watts (b) 200 watts (c) 28 watts (d) 14000 watts
20. The K. E of a 1000 kg car moving at a speed of 80 km/hr will be.
 (a) $2.47 \times 10^8 \text{ J}$ (b) $2.47 \times 10^5 \text{ J}$ (c) $24.7 \times 10^7 \text{ J}$ (d) $24.7 \times 10^3 \text{ J}$

Chapter # 7

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