

## MDCAT Physics Chapter 3 Work ,Energy & Power Online Test

Sr	Questions	Answers Choice
1	If the velocity of a body becomes half, the kinetic energy of body will become	A. One fourth B. Double C. Four times D. Half
2	A 50 kg man with 20 kg load on his head climbs up 20 steps of 0.25 m height each. The work done in climbing is	A. 5 J B. 350 J C. 100 J D. 3430 J
3	When a person lifts a body from ground work done by lifting force is?	A. Positive B. Negative C. Zero D. Half of positive maximum
4	The energy which an -e acquires when accelerated through a potential difference of 1 volt is called?	A. 1 Joule B. 1 Electron volt C. 1 Erg D. 1 Watt
5	A body of mass m kg is lifted by a man to a height of one meter in 30 sec. Another man lifts the same mass to the same height in 60 sec. The work done by them are in the ratio	A. 1: 2 B. 1: 1 C. 2: 1 D. 4: 1
6	Which of the following is a unit of energy?	A. unit B. whatt C. Horse Power D. None of the above
7	Work done in raising a box depends on:	A. How fast it is raised B. The strength of the man C. The height by which it is raised D. None of the above
8	When the velocity of a body is doubled:	A. Its K.E is doubled B. Its P.E is doubled C. Its momentum is doubled D. Its acceleration is doubled
9	An electric motor exerts a force of 40 N on a cable and pulls it by a distance of 30 m in one minute. The power supplied by the motor in watts is	A. 20 B. 200 C. 2 D. 10
10	Kinetic energy of a body moving with speed of 10 ms <sup>-1</sup> is 30 J. If its speed becomes 30 ms <sup>-1</sup> then its K.E becomes	A. 10J B. 270 J C. 90J D. 180 J
11	The same retarding force is applied to stop a train. The train stops after 80 m. If the speed is doubled, then the Stopping distance will be:	A. The same B. Doubled C. Halved D. Four times
12	The momentum of a particle is numerically equal to its K.E. What is the velocity of a particle?	A. 9 ms <sup>-1</sup> B. 3 ms <sup>-1</sup> C. 2 ms <sup>-1</sup> D. 1 ms <sup>-1</sup>
13	A motor boat is travelling with a speed of 3.0 m/sec. If the force on it due to water flow is 500 N, the power of the boat is	A. 150 KW B. 1.5 KW C. heat energy D. chemical energy
14	Car X is traveling at half the speed of car Y. Car X has twice mass of car Y. Which statement is correct?	A. Car X has half the kinetic energy of car Y B. Car X has one quarter of the kinetic energy of car Y C. Car X has twice the kinetic energy of car Y D. The tow cars have the same kinetic energy

15	If the stone is thrown up vertically and return to ground, its potential energy is maximum	A. during the upward journey B. during the upward journey C. at the maximum height D. at the bottom
16	A body is dropped from a height of 20 m and rebounds to a height of 10 m. the loss of energy is:	A. 10% B. 45% C. 50% D. 75%
17	In a gravitational field when work done by gravity is negative then	A. P.E increases B. P.E decrease C. None D. P.E remains same
18	An elevator's motor produces 3000 W power. The speed With Which it can lift a 1000 kg load is:	A. $30.6\text{ms}^{-1}$ B. $0.306\text{ms}^{-1}$ C. $3.06\text{ms}^{-1}$ D. $300.3\text{ms}^{-1}$
19	The power needed to lift amass of 5000g to height of 1min 2 second is	A. 2.45 watt B. 24.5 watt C. 245 watt D. 2.45 k watt
20	A force $\vec{F} = (3\hat{i} + 4\hat{j})$ newton is applied over a particle which displaces it from its origin to the point $\vec{r} = (4\hat{i} - 3\hat{j})$ meters. The work done on the particle is:	A. - 7 joules B. +13 joules C. + 7 joules D. +11 joules