

ECAT Physics Chapter 4 Work and Energy

Sr	Questions	Answers Choice
1	The work performed on an object does not depend on	A. Force applied B. Angle at which force is inclined to the displacement C. Initial velocity of the object D. Displacement
2	Which force is not a conservative force?	A. Frictional force B. Gravitational force C. Electric force D. Elastic spring force
3	Work is always done on a body when	A. A force acts on it B. It moves through certain distance C. None of A or B is correct D. Both A and B are correct
4	When a falling body hits ground, its KE changes to _____ energy.	A. Potential B. Chemical C. Mechanical D. sound and heat
5	Work has the dimensions as that of	A. Torque B. Angular momentum C. Linear momentum D. Power
6	Work done on a body by gravity in lifting it up to certain height is	A. Maximum B. Minimum C. Zero D. Negative
7	The amount of coal used since 1945 up till now as compared to that used in the whole of history before that is	A. Much more B. Very small C. No amount at all D. None of these
8	Which of the following type of force can do no work on the particle on which it acts:	A. Frictional force B. Gravitational force C. Electric force D. Centripetal force
9	The work done by a force keeping an object in circular motion with constant speed is:	A. Zero J. B. 0.1 J C. 1 J D. 0.01 J
10	The types of mechanical energy is/are:	A. Kinetic energy B. Potential energy C. Both of these D. None of these
11	A solar cell is made from:	A. Iron B. Silicon C. Germanium D. Copper
12	1 J = _____?	A. 10^7 erges B. 10^{-7} erges C. 10^5 erges D. 10^{-5} erges

13	A body moves a distance of 10 m along a straight line under the action of a force of 5 N. If the work done is 25 J, the angle which the force makes with the direction of motion of a body is:	<p>background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°</p> <p>C. 60°</p> <p>D. 90°</p>
14	A 100 kg car is moving at a speed of 10 m/sec and comes to rest after covering a distance of 50 m. the amount of work done against friction is:	<p>A. $+5 \times 10^1$ J</p> <p>B. $+5 \times 10^2$ J</p> <p>C. $+5 \times 10^3$ J</p> <p>D. $+5 \times 10^4$ J</p>
15	Work-energy principle states that work done on the body by applied force is equal to change in:	<p>A. Potential energy</p> <p>B. Kinetic energy</p> <p>C. Linear momentum</p> <p>D. None of these</p>
16	When a body moves against the force of friction on a horizontal plane, the work done by the body is:	<p>A. Positive</p> <p>B. Negative</p> <p>C. Zero</p> <p>D. None of these</p>
17	A boy pulls a toy car through a distance of 5 m by applying a force of 0.5 N, Which makes an angle of 60° with the horizontal. The work done by the boy is:	<p>A. 1.25 J</p> <p>B. 12.5 J</p> <p>C. 125 J</p> <p>D. None of these</p>
18	The value of escape velocity of Earth planet comes out to be:	<p>A. 11 m/sec</p> <p>B. 11 km/sec</p> <p>C. 11 km/hour</p> <p>D. 11 cm/sec</p>
19	Work is product of:	<p>A. Force and velocity</p> <p>B. Heat and energy</p> <p>C. Force and displacement</p> <p>D. None of these</p>
20	When a force of 0.5 N displaces a body through a distance of 2m in the direction of force, the work done is	<p>A. 0.5 J</p> <p>B. 2 J</p> <p>C. 0.25 J</p> <p>D. 1 J</p>