

## Physics ECAT Pre Engineering Chapter 4 Work and Energy

Sr	Questions	Answers Choice
1	The tidal energy is produced due to rotation of Earth relative to:	A. Moon B. Sun C. Oceans D. Water
2	Work has the dimension as that of:	A. Torque B. Angular momentum C. Linear momentum D. Power
3	A field in which the work done in moving a body along closed path is zero is called	A. Nuclear Field B. Conservative field C. Gravitational field D. Non-conservative field
4	If force and displacement are in opposite direction, the work done is taken as:	A. Positive work B. Negative work C. Zero work D. Infinite work
5	A solar cell converts energy of the Sun into:	A. Heat energy B. Magnetic energy C. Light energy D. Sound energy
6	Which one is conservative force	A. Electric force B. Frictional force C. Normal force D. Air resistance
7	The unit of work in CGS system is	A. Joule B. Erg C. Dyne D. Watt
8	The energy stored in the water of the dam is:	A. Electric energy B. Kinetic energy C. Potential energy D. None of these
9	A laborer carrying a load on his head moves from the rest on a horizontal road to another point where he comes to rest. He has done:	A. Minimum Work B. Maximum Work C. Zero Work D. Negative Work
10	The space around the earth within it exerts a force of attraction on other bodies of known as:	A. Nuclear field B. Conservative field C. Electric field D. Gravitational field
11	If we draw a graph between d (along x-axis) and F (along y-axis) and get a straight line horizontal to x-axis, then area under this straight line represents:	A. Power B. Work C. Pressure D. None of these
12	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:	A. 1.25 J B. 12.5 J C. 125 J D. None of these
13	The Space around the Earth within which it exerts a force of attraction on other bodies is known as	A. Nuclear field B. Conservative field C. Electric field D. Gravitational field
14	The work done by a force, keeping an object in circular motion with constant speed is:	A. Zero J B. 1 J C. 0.1 J D. 0.01 J

A. 0

15	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;"&gt;°</p> <p>B. 30<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°</span></p> <p>C. 60<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°</span></p> <p>D. 90<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°</span></p>
16	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>
17	A solar cell is made from:	<p>A. Iron</p> <p>B. Silicon</p> <p>C. Germanium</p> <p>D. Copper</p>
18	The work performed on an object does not depend on	<p>A. Force applied</p> <p>B. Angle at which force is inclined to the displacement</p> <p>C. Initial velocity of the object</p> <p>D. Displacement</p>
19	The work done on the body will be zero if:	<p>A. No force is applied on the body</p> <p>B. Force is applied but no displacement</p> <p>C. Angle between F(force) and d(displacement) is 90<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">°</span></p> <p>D. All of these are correct</p>
20	A labourer carrying a distance a load on his head moves from rest on a horizontal road to another point where he comes to rest. He has done:	<p>A. Minimum work</p> <p>B. Maximum work</p> <p>C. Zero work</p> <p>D. Negative work</p>