ECAT Pre General Science Physics Chapter 4 Work and Energy Online Test

Sr	Questions	Answers Choice
1	The total work done in moving the body up and then down through the same height in a gravitational field is equal to:	A. mgh B. Its wight C. Weight X height D. Zero
2	When a force of 0.5 N displaces a body through a distance of 2m in the direction of force, the work done is:	A. 2 J B. 0.25 J C. 1 J D. 0.5 J
3	Work is a:	A. Scalar quantity B. Vector quantity C. Base quantity D. None of these
4	Energy stored in the spring of a watch is called	A. Potential energy B. Kinetic energy C. Nuclear energy D. Elastic potential
5	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
6	In the force applied to parallel to the direction of motion, then the work done is:	A. Positive B. Negative C. Zero D. None of these
7	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
8	The work done moving a body between two points in a conservation field is independent of the:	A. Direction B. Force applied C. Path followed by the body ` D. Power
9	The work done on the body will be zero if:	A. No force is applied on the body B. Force is applied but no displacement C. Angle between F(force) and d(displacement) is 90° D. All of these are correct
10	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
11	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
12	When force and displacement are perpendicular to each other than work is equal to	A. Unity B. Infinity C. Zero D. -Fd
13	Work-energy principle states that work done on the body by applied force is equal to change in:	A. Potential energy B. Kinetic nergy C. Linear momentum D. None of these

14	Tick the conservative force	A. Tension in a string B. Air resistance C. Elastic spring D. Frictional force
15	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:	A. $+5 \times 10^1$ J B. $+5 \times 10^2$ J C. $+5 \times 10^3$ J D. $+5 \times 10^4$ J
16	In the force applied is parallel to the direction of motion, then work done is:	A. Maximum B. Minimum C. Zero D. None of these
17	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:`	A. Minimum work B. Maximum work C. Zero work D. Negative work
18	Work has the dimensions as that of	A. Torque B. Angular momentum C. Linear momentum D. Power
19	Watt x second is unit of:	A. Force B. Work C. Power D. None of these
20	SI Unit of work is	A. Nm^{-1} B. Joule C. Nms D. Both a and b
21	The tidal energy is due to gravitational pull of :	A. sun B. moon C. Mars D. None of these
22	The unit of work in CGS system is	A. Joule B. Erg C. Dyne D. Watt
23	Which of the following types 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
24	The commercial unit of electrical energy is :	A. K Watt B. KWH C. Horse power D. Joule
25	Work done is independent of path followed in _____	A. Gravitational field B. Magnetic field C. Electric field D. All of these
26	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 is correct
27	The work done in moving a body between two points in a conservative field is independent of the	A. Direction B. Force applied C. Path followed by the body D. Power
28	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
		A. 0° B. 90<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial, sans-serif; background-image: initial; background-position: initial; background-position: initial;

29	Work done is maximum when angle between force and displacement is:	background-position: initial; background-size: initial; background-repeat: initial; background-attachment: initial; background-origin: initial; background-clip: initial;">° C. 180° D. None of these
30	If work is done at the rate of 2 k j per second, then total work done is half an hour will be:	A. 0.5 Kwn B. 2 Kwh C. 1 Kwh D. None of these
31	A boy pulls a toy car through a distance of 5 m by applying a force of 0.5 N, which makes and 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
32	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
33	1 J = _____?	A. 10^7erges B. 10^{-7}erges C. 10^5erges D. 10^{-5}erges
34	The space around the earth within which it expects a force of attraction on other bodies is known as:	A. Nuclear field B. Conservative field C. Electric field D. Gravitational field
35	Work has a dimension as that of:	A. Torque B. Angular momentum C. Linear momentum D. Power
36	Which force is not a conservative force?	A. Frictional force B. Gravitational force C. Electric force D. Elastic spring force
37	The value of escape velocity of Earth planet comes out to be:	A. 11 m/sec B. 11 km/sec C. 11 km/hour D. 11 cm/sec
38	Tick the conservation force:	A. Tension in a string B. Air resistance force C. Elastic spring D. Frictional force
39	A solar cell converts energy of the Sun into:	A. Heat energy B. Magnetic energy C. Light energy D. Sound energy
40	When a falling body hits ground, its KE changes to _____ energy.	A. Potential B. Chemical C. Mechanical D. sound and heat
41	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
42	Work done on a body by gravity in lifting it up to certain height is	A. Maximum B. Minimum C. Zero D. Negative
43	When a body moves against the force of friction on a horizontal plane, the work done by the body is:	A. Positive B. Negative C. Zero D. None of these
		A. Force applied B. Angle at which force is inclined to

44	The work performed on an object does not depend on:	the displacement C. Initial velocity of the object D. Displacement
45	Maximum work is done when force and displacement are	A. Parallel B. Antiparallel C. Perpendicular D. Both a and b
46	Work done in lower and bucket into the well is:	A. Zero B. Positive C. Negative D. None of these
47	The consumption of energy by a 60 W bulb in 2 minutes is:	A. 2 watt-hour B. 120 watt-hour C. 30 watt-hour D. None of these
48	The angle between centripetal force and displacement of the body moving in a circle is:	A. $0°$ B. $90°$ C. $180°$ D. None of these
49	Which of the following is not a unit of power:	A. J-sec B. Watt C. N m/sec D. Horsepower
50	Work is a scalar product of	A. Force, Velocity B. Velocity, Displacement C. Force, Displacement D. Force, Momentum
51	Area under the force displacement graph gives	A. Power B. Work C. Heat D. Energy
52	The space around the earth in which its gravitational force acts on a body is called	A. Electric Field B. Gravitational field C. Magnetic field D. Conservative field
53	The field in which work done is moving body between two points depends upon the path followed is called:	A. Conservative filed B. Non-conservative field C. Electric field D. None of these
54	Teh consumption of energy by a 1000 watt heater in half an hour is:	A. 5 Kwh B. 0.5 Kwh C. 2.5 Kwh D. 3.2 Kwh
55	Work is always done on a body when:	A. A force acts on it B. It moves through certain distance C. None of A and B is correct D. Both A and B is correct
56	A 100 Kg car is moving at the speed of 10 m/sec and comes to rest after covering a distance of 50 m. The amount of work done against the friction is:	A. $+5 \times 10^1$ J B. $+5 \times 10^2$ J C. $+5 \times 10^3$ J D. $+5 \times 10^4$ J
		A. Positive B. Zero

#	Question	Options
57	Work done by the force of friction is always	B. Zero C. Negative D. Maximum
58	Work done along a closed path in a gravitational field is:	A. Maximum B. Minimum C. Zero D. Unity
59	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
60	A body moves a distance of 10 m along a straight line under the action of a force of 5 N and work done is 25J. The angle which the force makes the direction of motion will be:	A. 60° B. 90° C. 30° D. 0°
61	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
62	A body moves a distance of 10 m along a straight line under the action of a force of 5 N and work done is 25J. the angle which the force makes with the direction of motion will be:	A. 60° B. 90° C. 30° D. 0°

63	Work is a:	A. Scalar quantity B. Vector quantity C. Base quantity D. None of these
64	The field in which work done in moving a body between two points depends upon the path followed is called:	A. Conservative field B. Non-conservative field C. Electric field D. None of these
65	Work is a 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
66	Escape velocity from surface of Moon as compared to that from Earth surface is:	A. Greater B. Smaller C. Equal D. None of thes
67	A 2 kg block is held 1 m above floor for 50 seconds. The work done is:	A. Zero B. 10.2 J C. 100 J D. 980 J
68	Which force is not a conservative force:	A. Frictional force B. Gravitational force C. Electric force D. Elastic spring force
69	Work is a Quantity	A. Vector B. Scalar C. Non-physical D. None of these
70	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
71	A body moves a distance of 10 m along a straight line under the action of a force of 5 N and work done in 25J. The angle which the force makes with the direction of motion will be	A. 60° B. 90° C. 30° D. 0°
72	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
73	A field in which the work done is moving a body along closed path is zero is called:	A. Nuclear filed B. Conservative field C. Gravitational field D. Non-conservative field
74	The power of an electric generating station is expressed in:	A. Kilo Jule B. Kilowatt-hour C. Kilo watt D. Watt
75	Which one is conservative force	A. Electric force B. Frictional force C. Normal force D. Air resistance
76	Work done is maximum when angle between force and displacement is:	A. 0° B. 90° C. 180<span style="font-size: 10.5pt; line-height: 107%; font-family: Arial,

#	Question	Options
		D. None of these
77	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
78	Work has the dimension as that of:	A. Torque B. Angular momentum C. Linear momentum D. Power
79	Work is a	A. Scalar quantity B. Vector quantity C. Base quantity D. None of these
80	If force and displacement are in opposite direction, the work done is taken as:	A. Positive work B. Negative work C. Zero work D. Infinte work
81	The ultimate source of money sources of energy is:	A. Sun B. Air C. Water D. Petroleum
82	The work done in moving a body between two points in a conservation field is independent of the:	A. Direction B. Force applied C. Path followed by the body D. Power
83	Power is a :	A. Vector quantity B. Base quantity C. Scalar quantity D. None of these
84	If one newton force acts on a body and displaces the body through 1m work done on body is	A. 1 dyne B. 1 joule C. 1KJ D. 1 Watt
85	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 force makes with the direction of motion of a body is:	A. 0° B. 30° C. 60° D. 90°
86	Work is product of:	A. Force and velocity B. Heat and energy C. Force and displacement D. None of these

87	Work done is maximum when angle between force and displacement is	A. 0° B. 90° C. 180° D. None of these
88	When a wall is pushed by a person very strongly, he has done:	A. Maximum work B. Zero work C. Positive work D. Negative work
89	When two protons are brought are brought closer potential energy of both of them:	A. Increases B. Decreases C. Remains same D. None of these
90	When velocity of moving body is doubled, the quantity which is also doubled is its:	A. K.E. B. Acceleration C. Momentum D. P.E.
91	Most of the geysers occur in:	A. Volcanic regions B. Magnetic regions C. Northern region D. None of these
92	A two Kg block is held 1 m above the floor for 50 seconds, the work done is:	A. Zero B. 10.2 J C. 100 J D. 980 J
93	When a force of 0.5 N displaces a body through a distance of 2m in the direction of force, the work done is	A. 0.5 J B. 2 J C. 0.25 J D. 1 J
94	A body moves a distance of 10 m among 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:	A. 0° B. 30° C. 60° D. 90°
95	The energy stored int he water of the dam is:	A. Electric energy B. Kinetic energy C. Potential energy D. None of these
96	When the body is moves against the force of friction on a horizontal plane, the work done by the body is:	A. Positive B. Negative C. Zero D. None of these
97	The types of mechanical energy is/are:	A. Kinetic energy B. Potential energy C. Both of these D. None of these
		A. Moon

98	The tidal energy is produced due to rotation of Earth relative to:	B. Sun C. Oceans D. Water
99	The dimensions of work	A. $[MLT^{-1}]$ B. $[MLT^{-2}]$ C. $[ML^2T^{-2}]$ D. $[MLT]$
100	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
101	Work done is lowering the bucket into the well is:	A. Zero B. Positive C. Negative D. None of these
102	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
103	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
104	A solar cell is made from:	A. Iron B. Silicon C. Germanium D. Copper