Physics ECAT Pre Engineering Chapter 4 Work and Energy Online Test

Sr	Questions	Answers Choice
1	The energy stored int he water of the dam is:	A. Electric energy B. Kinetic energy C. Potential energy D. None of these
2	The commercial unit of electrical energy is :	A. K Watt B. KWH C. Horse power D. Joule
3	Work has the dimension as that of:	A. Torque B. Angular momentum C. Linear momentum D. Power
4	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
5	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.
6	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
7	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. $90°$
8	Watt x second is unit of:	A. Force B. Work C. Power D. None of these
9	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

10	Work done is lowering the bucket into the well is:	A. Zero B. Positive C. Negative D. None of these
11	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
12	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°
13	Which force is not a conservative force?	A. Frictional force B. Gravitational force C. Electric force D. Elastic spring force
14	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
15	Power is a :	A. Vector quantity B. Base quantity C. Scalar quantity D. None of these
16	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
17	Work is a	A. Scalar quantity B. Vector quantity C. Base quantity D. None of these
18	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
19	Work is product of:	A. Force and velocity B. Heat and energy C. Force and displacement D. None of these
20	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

No.	Question	Options
21	Escape velocity from surface of Moon as compared to that from Earth surface is:	A. Greater B. Smaller C. Equal D. None of thes
22	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
23	Work is a:	A. Scalar quantity B. Vector quantity C. Base quantity D. None of these
24	Work done along a closed path in a gravitational field is:	A. Maximum B. Minimum C. Zero D. Unity
25	When force and displacement are perpendicular to each other than work is equal to	A. Unity B. Infinity C. Zero D. -Fd
26	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
27	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°
28	Work has a dimension as that of:	A. Torque B. Angular momentum C. Linear momentum D. Power
29	Work is a Quantity	A. Vector B. Scalar C. Non-physical D. None of these
30	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
31	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
32	A solar cell converts energy of the Sun into:	A. Heat energy B. Magnetic energy C. Light energy D. Sound energy
33	Work done in lower and bucket into the well is:	A. Zero B. Positive C. Negative D. None of these
34	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
35	Work is a:	A. Scalar quantity B. Vector quantity C. Base quantity D. None of these
36	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
37	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
38	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

39	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
40	Work has the dimensions as that of	A. Torque B. Angular momentum C. Linear momentum D. Power
41	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°
42	Which of the following is not a unit of power:	A. J-sec B. Watt C. N m/sec D. Horsepower
43	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
44	Work done by the force of friction is always	A. Positive B. Zero C. Negative D. Maximum
45	Work done is maximum when angle between force and displacement is	A. 0° B. 90° C. 180° D. None of these
46	The tidal energy is produced due to rotation of Earth relative to:	A. Moon B. Sun C. Oceans D. Water
47	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
48	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
49	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

A. Kinetic energy

50	The types of mechanical energy is/are:	A. Kinetic energy B. Potential energy C. Both of these D. None of these
51	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
52	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
53	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
54	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
55	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
56	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
57	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
58	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
59	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
60	When a falling body hits ground, its KE changes to _____ energy.	A. Potential B. Chemical C. Mechanical D. sound and heat
61	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
62	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
63	Work is a scalar product of	A. Force, Velocity B. Velocity, Displacement C. Force, Displacement D. Force, Momentum
64	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
65	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
66	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
67	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

#	Question	Options
68	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
69	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°
70	A solar cell is made from:	A. Iron B. Silicon C. Germanium D. Copper
71	The dimensions of work	A. $[MLT^{-1}]$ B. $[MLT^{-2}]$ C. $[ML^2T^{-2}]$ D. $[MLT]$
72	Work done is maximum when angle between force and displacement is:	A. 0° B. 90° C. 180° D. None of these
73	Tick the conservative force	A. Tension in a string B. Air resistance C. Elastic spring D. Frictional force
74	Work done is independent of path followed in _____	A. Gravitational field B. Magnetic field C. Electric field

75	Maximum work is done when force and displacement are	A. Parallel B. Antiparallel C. Perpendicular D. Both a and b
76	Work done is maximum when angle between force and displacement is:	A. $0°$ B. $90°$ C. $180°$ D. None of these
77	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
78	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
79	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
80	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
81	Energy stored in the spring of a watch is called	A. Potential energy B. Kinetic energy C. Nuclear energy D. Elastic potential
82	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
83	The unit of work in CGS system is	A. Joule B. Erg C. Dyne D. Watt
84	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
85	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
86	SI Unit of work is	A. Nm^{-1} B. Joule C. Nms D. Both a and b
87	The power of an electric generating station is expressed in:	A. Kilo Jule B. Kilowatt-hour C. Kilo watt

		D. Watt
88	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
89	1 J = _____?	A. 10^7 erges B. 10^{-7} erges C. 10^5 erges D. 10^{-5} erges
90	Area under the force displacement graph gives	A. Power B. Work C. Heat D. Energy
91	Work done on a body by gravity in lifting it up to certain height is	A. Maximum B. Minimum C. Zero D. Negative
92	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
93	Which force is not a conservative force:	A. Frictional force B. Gravitational force C. Electric force D. Elastic spring force
94	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
95	The tidal energy is due to gravitational pull of :	A. sun B. moon C. Mars D. None of these
96	Most of the geysers occur in:	A. Volcanic regions B. Magnetic regions C. Northern region D. None of these
97	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
98	A two Kg block is held 1 m above the floor for 50 seconds, the work done is:	A. Zero B. 10.2 J

98	A two Kg block is held 1 m above the floor for 50 seconds, the work done is:	C. 100 J D. 980 J
99	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
100	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
101	The ultimate source of money sources of energy is:	A. Sun B. Air C. Water D. Petroleum
102	Which one is conservative force	A. Electric force B. Frictional force C. Normal force D. Air resistance
103	Tick the conservation force:	A. Tension in a string B. Air resistance force C. Elastic spring D. Frictional force
104	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