ECAT Pre General Science Online Test

Sr	Questions	Answers Choice
1	Moment of linear momentum is called.	A. Moment arm B. Moment of inertia C. Inertia D. Angular momentum
2	Formula for calculating moment of inertia of the bodies of one pair is same. Tick the answer.	A. Disc, sphere B. sphere, hoop C. Thin rod, hoop D. Hoop,disc
3	Final velocity of a hoop is _____ the final velocity of a disc having same mass and radius on coming down an inclined plane.	A. Greater than B. smaller than C. Equal to D. None of these
4	The tidal energy is produced due to rotation of Earth relative to:	A. Moon B. Sun C. Oceans D. Water
5	Most of the geysers occur in:	A. Volcanic regions B. Magnetic regions C. Northern region D. None of these
6	A solar cell is made from:	A. Iron B. Silicon C. Germanium D. Copper
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	The tidal energy is due to gravitational pull of :	A. sun B. moon C. Mars D. None of these
9	A solar cell converts energy of the Sun into:	A. Heat energy B. Magnetic energy C. Light energy D. Sound energy
10	The ultimate source of money sources of energy is:	A. Sun B. Air C. Water D. Petroleum
11	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
12	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
13	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
14	The power of an electric generating station is expressed in:	A. Kilo Jule B. Kilowatt-hour C. Kilo watt D. Watt
15	Power is a :	A. Vector quantity B. Base quantity C. Scalar quantity D. None of these

16	Watt x second is unit of:	A. Force B. Work C. Power D. None of these
17	Which of the following is not a unit of power:	A. J-sec B. Watt C. N m/sec D. Horsepower
18	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
19	When a falling body hits ground, its KE changes to _____ energy.	A. Potential B. Chemical C. Mechanical D. sound and heat
20	The commercial unit of electrical energy is :	A. K Watt B. KWH C. Horse power D. Joule
21	The types of mechanical energy is/are:	A. Kinetic energy B. Potential energy C. Both of these D. None of these
22	Escape velocity from surface of Moon as compared to that from Earth surface is:	A. Greater B. Smaller C. Equal D. None of thes
23	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
24	The energy stored int he water of the dam is:	A. Electric energy B. Kinetic energy C. Potential energy D. None of these
25	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
26	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.
27	Energy stored in the spring of a watch is called	A. Potential energy B. Kinetic energy C. Nuclear energy D. Elastic potential
28	During the upward motion of the projectile, the vertical component of velocity.	A. Decreases B. Increases C. Remains constant D. None of these
29	If m means mass of gases objected per second from a rocket and v shows the change in velocity, than mv is named as:	A. Force B. Energy C. work D. impulse
30	Change in momentum is one second called.	A. Impulse B. Force C. Energy D. Work
31	The collision in which KE is conserved but momentum is not conserved is called:	A. Elastic collision B. Inelastic collision C. any these D. None of these
32	When the mass of the colliding body is much larger than the mass of the body at rest, its velocity after collision.	A. Becomes half B. Becomes zero C. Ramains same D. Becomes double
33	If two bodies of equal masses moving in the same direction collide elastically, then their velocities	A. Are added B. Are subtracted C. Do not change

	velocities.	C. Do not change D. Are exchanged
34	Acceleration in a body is always produced in the directin of:	A. Velocity B. Weight C. Force D. Botha B and C
35	A train cover 90 km in half an hour. the time taken by it to travel 15 km will be:	A. 20 minutes B. 48 minutes C. 10 minutes D. 5 minutes
36	The path followed by the projectile is known as:	A. Cycle B. Hyperbola C. Trajectory D. Route
37	During the upward motion of the projectile, the vertical component of velocity:	A. Decreases B. Increases C. Remains constant D. None of these
38	Change in momentum is one second is called:	A. Impulse B. Force C. Energy D. Work
39	Which quantity has the same dimension as that of impulse?	A. KE B. Power C. Momentum D. Work
40	The product of force and time is called change in:	A. Momentum B. Impulse C. Force D. Both a and b
41	Newton's first law is also called:	A. Law of torque B. Law of force C. Law of inertia D. None of these
42	Acceleration in a body is always produced in the direction of :	A. Velocity B. Weight C. Force D. Both B and C
43	If the acceleration of a body is not uniform, then velocity-time graph will be:	A. Curve B. Straight line C. Sphere D. All of these
44	If the acceleration of a body is negative, then slope of the velocity-time graph will be:	A. Zero B. Positive C. Negative D. Infinity
45	Distance covered by a freely failing body n the first second of its motion will be:	A. 4.9 m B. 9.8 m C. 19.6 m D. 29.4 m
46	When the total displacement is divided by total time taken, we get:	A. Velocity B. Average speed C. Average velocity D. None of these
47	The decrease in velocity per unit time is called:	A. Variable Acceleration B. Average Acceleration C. Retardation D. None of these
48	The distance covered by a body in unit time is called.	A. Displacement B. speed C. Velocity D. Both B and C
49	Which quantity has different dimension?	A. Tension B. Work C. Energy D. Torque
50	dimensions are the same for:	A. Work and energy B. Force and weight C. None of these D. Both a and b
		A. M B. [M]

51	Dimension of mass is written as:	B. [M] C. (M) D. [m]
52	A dimension stands for the _____ nature of certain physical quantity.	A. super B. Quantitative C. Qualitative D. Both B and C
53	The maximum possible error in the reading for a meter rod with least count 1 mm is:	A. 0.005 mm B. 0.05mm C. 0.5mm D. 5.0mm
54	The maximum possible error in the reading of an instrument is _____ its least count.	A. Half of B. Quarter of C. Equal to D. Double than
55	For multiplication and division purposes, percentage uncertainties are:	A. Add B. subtracted C. Multiplied D. Divided
56	For addition and subtraction purposes, absolute uncertainties are:	A. Added B. Subtracted C. Multipiled D. Divided
57	Uncertainty is of following type/types:	A. Absolute B. Fractional C. Percentage D. All of these
58	The error may occur due to:	A. Negligence B. Faulty apparatus C. Inappropriate method D. all of these
59	If the absolute uncertainty of an instrument is 0.0a1 cm, then its least count will be :	A. 0.005 cm B. 0.01 cm C. 0.02 cm D. 0.001 cm
60	The definite number of significant figures in 5000 is:	A. Four B. Three C. Two D. One
61	Significant figures in 0.2020 are:	A. Two B. Three C. Four D. Five
62	0.0001210 has _____ significant figures.	A. Four B. Three C. Seven D. Eight
63	Three quarks make:	A. An electron B. A meson C. A baryon D. A photon E. None of these
64	A pair of quark and antiquark makes a:	A. Meson B. Baryon C. Proton D. Neutron E. None of these
65	Which are not the elementary particles?	A. Photons B. Leptons C. Hadrons D. Quarks E. None of these
66	U-238 present in the natural uranium is about:	A. 59% B. 0.007% C. 99% D. 39% E. 19%
67	Heavy water is made of one oxygen atom and two atoms of:	A. Protium B. Deuterium C. Tritium D. Any of these E. None of these
		A. Water

68	Examples of moderators used in a fission reactor is/are:	A. Water B. Heavy water C. Carbon D. Hydrocarbon E. All of these
69	There is present in paraffin a large amount of:	A. Nitrogen B. Hydrogen C. Carbon D. Baryllium E. Lithium
70	A mass difference of 0.0012 u is equivalent to and energy of:	A. 0.5 Me V B. 1.13 MeV C. 5.13 MeV D. 1.13 keV E. 1.13 eV
71	In his experiment on nuclear reactions, Rutherford bombardedα particles on:	A. Nitrogen B. Hydrogen C. Lead D. Oxygen E. Krypton
72	Rutherford performed an experiment on nuclear reactions in:	A. 1718 A.D B. 1818 A.D C. 1918 A.D D. 2001 A.D. E. 1701 A.D.
73	The counter, which also provides the power to the G.M. tube is called:	A. Thin mica window B. thin glass window C. Airy window D. Wooden window E. None of these
74	In wilson cloud chamber, the air becomes saturated with:	A. Alcohol vapours B. Water C. Helium gas D. Nitrogen gas E. None of these
75	The unit of decay constant is:	A. Second B. Metre C. Hour D. Year E. Second⁻¹
76	The reciprocal of decay constant λ of a radioactive material is:	A. Frequency B. Half life C. Year D. Mean life E. None of these
77	Rate of decay is actually described by.	A. Half line B. Decay constant C. Mean life D. Total life E. None of these
78	When thorium nucleus emits aβ-particle, the daughter nucleus is called:	A. Protactinium B. Actinium C. Uranium D. Radium E. Redon
79	When certain nucleus emits aβ-particles, is mass number:	A. Remain same B. Increases by one C. Decreases by one D. Decreases by four E. None of these
80	When certain nucleus emits anα particle, its mass number:	A. Increases by one B. Decreases by one C. Remain same D. Decreases by four E. None of these
81	During the nuclear changes, the law/s of conservation that hold/s are that of:	A. Charge B. energy C. Momentum D. Mass E. All of these
82	The nucleus left after the emission of some radiation is called:	A. Parent nucleus B. Daughter necleus C. Mother necleus D. Any of these E. None of these

83	Marie curie and Pierre curie discovered:	A. Uranium B. Polonium C. Radium D. Both (A) and (C) E. Plutonium
84	Radium was discovered by:	A. Becquerel B. Marie curie C. Pierre curie D. Rutherford E. Both (B) and (C)
85	Radioactivity was discovered by:	A. Becquerel B. Marie curie C. Pierre curie D. All of them E. None of these
86	Referring to the above figure, the binding energy per nucleon increases upto mass number equal to:	A. 50 B. 100 C. 150 D. 200 E. 250
87	Referring to the above figure, we can say that of all the elements, the most stable element is	A. Phosphours B. Iron C. uranium D. Lithium E. Bismuth
88	For Protium, the mass defect is:	A. Infinite B. Zero C. Very large D. A few grams E. None of these
89	The nucleus/nuclei of hydrogen is/are:	A. Proton B. Deuteron C. Triton D. All of these E. None of these
90	The isotope/s of hydrogen is /are:	A. Protium B. Deuterium C. Tritium D. Both (A) and (B) E. All of these
91	The nuclei of an element having the same charge number but different mass numbers are called:	A. Isobars B. Isotopes C. Isomers D. Isobaric E. Isothermal
92	Nucleus of a hydrogen atom may contain:	A. One neutron only B. Two protons and one neutron C. Two protons and two neutrons D. Aany of above E. One proton only
93	The figure 1.007276μ shows the mass of an:	A. Atom B. Positron C. Electron D. Neutron E. Proton
94	Nucleon means:	A. Only electrons B. Only neutrons C. Only protons D. Both (A) and (C) E. Both (B) and (C)
95	Neutron was disvovered by:	A. Rutherford in 1920 B. Chadwick in 1922 C. Bohr in 1913 D. Compton in 1927 E. None of these
96	Neutron was suggested to be in the nucleus by:	A. Rutherford in 1920 B. Bohar in 1913 C. Dirac in 1928 D. Anderson in 1932 E. None of these
97	The lasing or active medium in He-Ne laser discharge tube is:	A. Nitrogen B. Helium C. Hydrogen D. Neon

		E. None of these
98	The spectrum emitted from hydrogen filled discharge tube is:	A. Line spectrum B. Discrete spectrum C. And spectrum D. Absorption spectrum E. Both (A) and (B)
99	The He-Ne laser discharge tube is filled with:	A. 85% He B. 15% He C. 50% He D. 60% He E. 85% Ne
100	A metastable stae:	A. Is an excited state B. Is that in which excited electron is stable C. Is that in which excited electron is usually unstable D. Means a time interval of 10⁻⁸second E. Both (A) and (C)