

ECAT Physics Online Test

Sr	Questions	Answers Choice
1	The consumption of energy by a 1000 watt heter in half an hour is:	A. 5 Kwh B. 0.5 Kwh C. 2.5 Kwh D. 3.2 Kwh
2	One KWh is equal to:	A. 3.6×10^{22} J B. 3.6 KJ C. 3.6×10^{21} KJ D. 3.6 MJ
3	The velocity given to a body to go out of the influence of earth's gravity is known as:	A. Terminal velocity B. Orbital velocity C. Escape velocity D. None of these
4	When two protons are brought closer potential energy of both of them:	A. Increases B. Decreases C. Remains same D. None of these
5	A body of weight 1 N has a kinetic energy of 1 joule when its speed is:	A. 1.46 m sec^{-1} B. 2.44 m sec^{-1} C. 3.42 m sec^{-1} D. 4.43 m sec^{-1}
6	Tick the conservation force:	A. Tension in a string B. Air resistance string C. Elastic spring force D. Frictional force
7	Work done along a closed path in a gravitational field is:	A. Maximum B. Minimum C. Zero D. Unity
8	A current of 1 ampere is passing through a conductor. The charge passing through it in half a minute s	A. One coulomb B. 0.5 coulomb C. 30 coulombs D. 2 coulombs E. None of these
9	The conventional current is the name given to current due to flow of	A. Positrons B. Positive charges C. Negative charges D. Both A and C E. None of these
10	In case of metallic conductors, the charge carriers are	A. Protons B. Electrons C. Antiprotons D. Positrons E. Both A and B
11	Field lines are closer to each other in the region where the filed is	A. Stronger B. Weaker C. Much weaker D. Absent E. None of these
12	Electric field lines emerge from the charges in	A. One dimension B. Two dimensions C. Three dimensions D. Four dimensions E. None of these
13	The value of relative permittivity of different dielectrics are	A. Equal B. Different C. Greater than one D. Smaller than one E. Both B and C
14	By placing a dielectric in between the charges, the electrostatic force between them	A. Is always reduced B. Is always increased C. Is not affected

		D. Is increased one million times E. None of these
15	Electric lines of force	A. Intersect each other B. Are always parallel C. Are always anti-parallel D. Never intersect E. None of these
16	The electric field lines start from	A. Positive charge B. Negative charge C. Either A or B D. Neutron E. An atom
17	The SI unit of charge is	A. Ampere B. Watt C. Coulomb D. Volt E. Joule
18	The intensity at a point due to a charge is inversely proportional to	A. Amount of charge B. Size of the charge C. Distance between charge and the point D. Square of the distance from the charge E. None of these
19	Electric intensity at a place due to a charged conductor is a	A. Scalar quantity B. Vector quantity C. Semi vector and semi scalar D. Dimensionless quantity E. Both A and D are true
20	Electric field strength is defined as	A. Work done on unit charge B. Force exerted on unit charge C. Distance covered by unit charge D. Power exerted by unit charge E. None of these
21	Referring to above figure, due to change in current in the coil P, the change in magnetic flux	A. Is associated with coil P B. Is associated with coil S C. Causes and induced current in coil S D. All of these E. None of these
22	Referring to above figure, current in coil P falls from its maximum value to zero	A. At the instant the switch is closed B. At the instant the switch is opened C. When switch is kept open D. When switch is kept closed E. None of these
23	Referring to above figure, current in the coil P grows from zero to its maximum value	A. At the instant the switch is closed B. At the instant the switch is opened C. When switch is kept open D. All of above E. Neither of above
24	A coil of constant area is placed in a constant magnetic field. An induced current is produced in the coil when	A. The coil is distorted B. The coil is rotated C. The coil is neither distorted nor rotated D. Both A and B E. None of these
25	Instead of moving the coil towards a magnet, the magnet is moved towards the coil with the same speed. The galvanometer shows current	A. Of same magnitude in the same direction B. Of different magnitude in the same direction C. Of same magnitude but in opposite direction D. Of different magnitude in the opposite direction E. None of these
26	When there is no relative motion between the magnet and coil, the galvanometer indicated	A. No current in the circuit B. An increasing current C. A decreasing current D. A constant current E. Either B or C
27	The magnitude of induced emf depends upon the	A. Rate of decrease of magnetic field B. Rate of change of magnetic field C. Rate of increase of magnetic flux D. Constancy of magnetic field E. None of these

28	Michael Faraday and Joseph Henry belong respectively to	A. USA and England B. England and France C. England and USA D. USA and France E. None of these
29	In magnet-coil experiment, emf can be produced by	A. Keeping the coil stationary and moving the magnet B. Keeping the magnet stationary and moving C. Relative motion of the loop and magnet D. Any one of above E. All above
30	The induced current in the loop can be Increased by	A. Using a stronger magnetic field B. Moving the loop faster C. Replacing the loop by a coil of many turns D. All above E. Both A and B