ECAT Physics Online Test

Sr	Questions	Answers Choice
1	The magnitude of alternative voltage V:	A. Always increase B. Always decrease C. Remains constant D. Does not remain constant E. None of these
2	If we connected the ordinary DC ammeter to measure alternating current, it would measure its:	A. Instantaneous value B. RMS value C. Value averaged over a cycle D. Either (B) or (C) E. Either (A) or (C)
3	The RMS value of alternating current is:	A. 0.7 times at the peak value B. 0.5 times the peak value C. 0.7 times the Instantaneous value D. Equal to maximum voltage E. None of these
4	The Instantaneous value of alternative current maybe:	A. The same as its RMS value B. Greater than its Rms value C. The same as its peak value D. Any of these E. None of these
5	Peak value of alternative current is:	A. one of its Instantaneous value B. Equal to its RMS value C. The same as its peak-to-peak value D. Both (B) and (C) E. None of these
6	The sum of positive and negative peak values is called:	A. Instantaneous value B. Peak value C. Rms valuie D. Peak-to peak-value E. None of these
7	The highest value reached by the voltage or current:	A. In quarter cycle is called Instantaneous value B. In half cycle is called peak-to-peak value C. In one cycle is called peak value D. In half cycle is called Instantaneous value E. None of these
8	The entire wave form of sinusoidal voltage is actually a set of all the:	A. Positive maximum value + V_oand negative maximum value -V_o B. Posiotive maximum value +V_oand zero C. Zero and negative maximum value -V_o D. Any of these E. None of these
9	The waveform of alternating voltage is a:	A. Square B. Rectangular C. Saw-tooth D. Sinusoidal E. None of these
10	The wave form of alternating voltage is the graph between:	A. Voltage across X-axis and time across y-axis B. Current and time C. Voltage along y-axis and time along x-axis D. Voltage and current E. Either (B) or (D)
11	The most common source of alternating voltage is:	A. Motor B. Transformer C. AC genrator D. Both (A) and (C) E. Both (A) and (B)

12	The time interval during which the Voltage source changes its polarity once is known as:	A. Time period T B. Half the time period C. Quarter the time period D. Two third of the time period E. None of these
13	Nowadays, Most of the electric energy is produced by the A.C. generators using:	A. Hydal water B. Geothermal energy C. Solar energy D. Biomass E. Both (B) and (D)
14	Alternating current is produced by a voltage source which polarity:	A. Remains the same B. Reverse after period T C. Keeps on reversing with time D. Reverse after every time interval T/2 E. Both (C) and (D)
15	Alternating current can be transmitted:	A. To long distance B. At very high cost C. At very low cost D. Both (A) and (C) E. Both (A) and (B)
16	The direction of induced current is always so as to oppose the cause which produces it. This is	A. Lenz's law B. Ampere's law C. Faraday's law D. Coulomb's law E. None of these
17	Faraday's law of electromagnetic induction has been used in the construction of:	A. Galvanometer B. Voltmeter C. Electric motor D. Electric genrator E. Commutator
18	The law of electromagnetic induction is related to:	A. Coulomb B. Ampere C. Faraday D. Lenz E. None of these
19	The rate change of area expressed is expressed in:	A. None of these B. ms⁻¹ C. m²s⁻² D. ms⁻² E. m²s⁻¹
20	Plan of a coil makes an angle of 20° with the lines of magnetic field. The angle between B and vector area of plane of coil is:	A. Also 20° <o:p></o:p> B. 70° <o:p></o:p> C. 90° <o:p></o:p> D. 180° <o:p></o:p>

		E. None of these
21	A square loop of wire is moving through a uniform magnetic field. The normal to the loop is oriented parallel to the magnetic field. The emf induced in the loop is:	A. Zero B. Of smaller magnitude C. Of larger magnitude D. Sometimes B, sometimes C E. Neither of these
22	A metal road of length 1m is moving at a speed of 1 ms^{-1}In a direction making angle of 30^{o} with 0.5 Y magnetic field. The emf produced in the rod is:	A. 0.25 N B. 0.25 V C. 2.5 V D. 2.5 N E. 25 V
23	Motional emf is called motional:	A. Electromagnetic force and is measured in newtons B. Electromotive force and is measured in volt C. Electromotive force and is measured in newtons D. Electromagnetic force and is measured in volts E. None of these
24	When the conductor moved across a magnetic field:	A. Emf induced is similar to that of a battery <o:p></o:p> B. Emf induced gives rise to induced current <o:p></o:p> C. An emf induced across its ends <o:p></o:p> D. All are correct <o:p></o:p> E. None of these <o:p></o:p>
25	A coil of constant area is placed in a constant magnetic field. An include current is produced in the coil when:	A. The coil is destroyed B. The coil is Rotated C. The coil is neither destroyed nor rotated D. Both (A) and (B) E. None of these
26	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
27	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 the coil C. Relative motion of the loop and magnet D. Any one of above E. All above
28	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)

29	The induced current is a conductor depends upon:	A. Resistance of the loop B. Speed with which the conductor moves C. Any of these D. Both (A) and (B) E. None of these
30	The phenomenon of generation of induced emf is called	A. Electrostatic induction B. Magnetic induction C. Electromagnetic induction D. Electric induction E. Both (A) and (D)