ECAT Pre General Science Physics Chapter 16 Alternating Current Online Test

Sr	Questions	Answers Choice
1	The bridge circuit of full wave rectification uses	A. one diode B. two diode C. three diode D. four diode
2	In half wave rectification	A. both halves of the input voltage is used B. only one half of the input voltage is used C. either of these D. none of these
3	During the negative half-cycle of the half-wave rectification, the diode	A. does not conduct B. conducts C. either of these D. none of these
4	During the positive half-cycle in the half-wave rectification, the diode	A. does not conduct B. conducts C. either of these D. neither of these
5	The output voltage of half wave rectification is in the form of	A. a smooth curve B. a smooth wave C. pulses D. all of the above
6	Conversion of alternating current into direct current is called	A. amplification B. rectification C. conduction D. polarization
7	A diode characteristic curve is a plot between	A. current and time B. voltage and time C. voltage and current D. forward voltage and reversed voltage
8	When the pn-junction is connected reversed biased, its resistance is of the order of	A. few ohms B. few kilo-ohms C. few mega-ohms D. few mili-ohms
9	When the pn-junction is in reversed biased, current flows through the junction due to the	A. majority carriers B. minority carriers C. either of them D. none of them
10	When the pn-junction is forward biased. the current flows through it is of the order of	A. mili-amperes B. amperes C. nano-amperes D. micro-amperes
11	When the p-n junction is forward biased its resistance is of the order of	A. few mega ohms B. few kilo ohms C. few ohms D. few milli ohms
12	The value of the potential difference across the depletion region for the case of germanium is	A. 0.3 V B. 0.5 V C. 0.7 V D. 0.9 V
13	A p-n junction is formed when a crystal of silicon is growth in such a way that its one half is doped with trivalent impurity and the other half with a impurity from	A. 2nd group B. fourth group C. fifth group D. sixth group
14	Average value of A.C voltage during one cycle is	A. 1 B. Zero C. Maximum D. Variable
		A. An electromotive force

15	A changing magnetic flux creates around itself	B. An electric field (changing electric flux) C. Magnetic field D. None of the above
16	When electrons in the transmitting antenna vibrate 94000 time per second, they produce radiowaves having frequency	A. 9.4 kHz B. 940 kHz C. 94 kHz D. None of these
17	In free space, the speed of electromagnetic waves is	A. $3 \times 10^8 \, ms^{-1}$ B. $3 \times 10^6 \, ms^{-1}$ C. $4 \times 10^7 \, ms^{-1}$ D. $3 \times 10^9 \, ms^{-1}$
18	Transmitting antenna emits	A. Magnetic waves B. Electric waves C. Electromagnetic waves D. Sound waves
19	Electromagnetic waves transmit energy equal to	A. $1/2 \, mv^2$ B. $m_o c^2$ C. hf/c D. hf
20	Which one of the following Electro-magnetic wave have the highest frequency and shortest wave-length	A. X-rays B. Ultraviolet rays C. y-rays D. Cosmic rays
21	Chock consumes externally small	A. Charge B. Current C. Power D. Potential
22	Which one of the following waves belongs to electromagnetic spectrum	A. Radio and TV waves B. Radar waves C. Micro waves D. All of them
23	In frequency modulation (FM), the carrier waves amplitude	A. Remains constant B. Increase C. Decreases D. None of these
24	If the value of C in a series RLC circuit is increased, the resonant frequency	A. Is not affected B. Increase C. Remains the same D. Decreases
25	The phase angle of a series RLC circuit at resonance is	A. $180°$ B. $90°$ C. $0°$ D. None of the these
26	The total reactance of a series RLC circuit at resonance is	A. zero B. Equal to the resistance C. Infinity D. Capacitive
27	SI unit of impedance is	A. hertz B. henry C. ampere D. ohms
28	In series RC circuit when $R=X_C$, then the phase angle is	A. $0°$ B. $90°$ C. $70°$ D. $45°$
		A. Decreases

29	An A.C. voltage is applied across the inductor. When the frequency of the voltage is increased, the current	A. Decreases B. Increases C. Does not change D. Momentarily goes to zero
30	At resonance frequency the impedance of parallel resonance circuit is	A. Maximum B. Minimum C. Zero D. None of the above