

## ECAT Pre General Science Physics Chapter 16 Alternating Current

Sr	Questions	Answers Choice
1	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
2	In n-p-n transistor, emitter base junction is kept	A. reversed B. forward biased C. may be reversed or may be forward biased D. none of these
3	If 250V is the RMS value of alternative voltage, then its peak value $V_0$ will be:	A. 353.5V B. 250V C. 175V D. zero E. 400V
4	The circuit which is used to smooth the output voltage of the full-wave rectification is known as	A. transformer B. rectifier C. filter D. none of these
5	The closed loop gain of the non-inverting amplifier is given by	A. $G = \frac{R_2}{R_1}$ B. $G = -\frac{R_2}{R_1}$ C. $G = 1 + \frac{R_2}{R_1}$ D. $G = 1 + \frac{R_1}{R_2}$
6	In frequency modulation (FM), the carrier waves amplitude	A. Remains constant B. Increase C. Decreases D. None of these
7	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
8	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
9	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
10	Which of the following diodes can operate in the reverse biased condition	A. photo diode B. light emitting diode C. photo voltaic cell D. none of these
11	Alternating current can induce voltage because it has a	A. High peak value B. Varying magnetic field C. Stronger field than direct current D. Constant magnetic field
12	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)
13	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
14	When either L or C is increased, the resonant frequency of the RLC series circuit	<p>A. Increases  <b>B. Decreases</b>            C. Remains the same            D. Becomes zero</p>
15	The phase angle of a series RLC circuit at resonance is	<p>A. 180°            B. 90°  <b>C. 0°</b>            D. None of the these</p>
16	The amplifier which is used to perform mathematical operations electronically is known as	<p>A. calculator  <b>B. OP-AMP</b>            C. computer            D. any one of them</p>
17	In a transistor, if the central region is n-type, then this type of transistor is known as	<p>A. n-p-n transistor  <b>B. p-n-p transistor</b>            C. either of these            D. none of these</p>
18	The highest value reached by the voltage or current:	<p>A. In quarter cycle is called Instantaneous value            B. In half cycle is called peak-to-peak value  <b>C. In one cycle is called peak value</b>            D. In half cycle is called Instantaneous value            E. None of these</p>
19	When the emitter-base junction of a transistor is reverse biased, collector current	<p>A. Reverses            B. Increases  <b>C. Decreases</b>            D. Stops</p>
20	When a transistor is used as a switch the circuit in which the current is to be switched OFF and ON, is connected between the	<p>A. base and emitter  <b>B. collector and emitter</b>            C. base and collector            D. any one of these</p>