

## Physics ECAT Pre Engineering Chapter 16 Alternating Current

Sr	Questions	Answers Choice
1	For the normal operation of the transistor, its	A. emitter-base and collector base junctions are forward biased B. emitter-base junction is reversed biased and collector base junction is forward biased C. emitter-base junction is forward biased and collector-base junction is reverse biased D. any one of these
2	In series RC circuit when $R=X_C$ , then the phase angle is	A. $0^\circ$ B. $90^\circ$ C. $70^\circ$ D. $45^\circ$
3	Conversion of alternating current into direct current is called	A. amplification B. rectification C. conduction D. polarization
4	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
5	A resonance curve for RLC series circuit is a plot of frequency versus	A. Voltage B. Current C. Impedance D. Reactance
6	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
7	The entire wave form of sinusoidal voltage is actually a set of all the:	A. Positive maximum value + $V_{\text{avg}}$ and negative maximum value $-V_{\text{avg}}$ B. Positive maximum value + $V_{\text{avg}}$ and zero C. Zero and negative maximum value $-V_{\text{avg}}$ D. Any of these E. None of these
8	The bridge circuit of full wave rectification uses	A. one diode B. two diode C. three diode D. four diode
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	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)
11	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	A. base and emitter B. collector and emitter C. base and collector D. any one of these

12	The alternative voltage of current is actually measured by:	A. Its RMS value B. Square root of its mean square value C. Instantaneous value D. Peak value E. Both (A) and (B)
13	The basic circuit elements of A.C circuit are	A. Resistor B. Inductor C. Capacitor D. All the three
14	The value of the input resistance of OP-AMP is of the order of	A. few ohms B. few hundred ohms C. several kilo ohms D. several mega ohms
15	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. $G = 1 + \frac{R_2}{R_1}$
16	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)
17	In describing functions of digital systems, a closed switch will be shown as	A. 0 B. 1 C. low D. any one of these
18	The most common source of alternating voltage is:	A. Motor B. Transformer C. AC generator D. Both (A) and (C) E. Both (A) and (B)
19	Most OP-AMP operates with	A. $\pm 6$ V supply B. $\pm 10$ V supply C. $\pm 12$ V supply D. $\pm 24$ V supply
20	Which of the following diode is used to derive the current in external circuit when light is incident in the circuit	A. photo diode B. light emitting diode C. photo voltaic cell D. none of these