

## ECAT Physics Chapter 16 Alternating Current

Sr	Questions	Answers Choice
1	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
2	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
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	The device which allows only the flow of an A.C. through a circuit is	A. Capacitor B. Inductor C. D.C. motor D. Battery
5	Chock consumes externally small	A. Charge B. Current C. Power D. Potential
6	For a n-p-n transistor, the conventional current equation can be written as	A. $I_E = I_C + I_B$ B. $I_C = I_B - I_E$ C. $I_C + I_B = I_E$ D. $I_B + I_E = I_C$
7	The length of rotating vector (on a certain scale) represents the:	A. Peak value of alternating quantity B. RMS value of alternating quantity C. Instantaneous value of alternating quantity D. Either (B) or (C) E. Either (A) or (B)
8	The waveform of alternating voltage is a:	A. Square B. Rectangular C. Saw-tooth D. Sinusoidal E. None of these
9	The total reactance of a series RLC circuit at resonance is	A. zero B. Equal to the resistance C. Infinity D. Capacitive
10	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
11	The open loop gain of OP-AMP is of the order of	A. $10^2$ B. $10^3$ C. $10^4$ D. $10^5$
12	The basic circuit elements of A.C circuit are	A. Resistor B. Inductor C. Capacitor D. All the three
13	The basic circuit element in D.C. circuit is:	A. A capacitor B. A resistor C. An inductor D. Both (A) and (C) E. Both (A) and (B)
		A. $G = \frac{R_2}{R_1}$

14	The closed loop gain of the non-inverting amplifier is given by	<p>B. <math>G = -\frac{R_2}{R_1}</math></p> <p>C. <math>G = 1 + \frac{R_2}{R_1}</math></p> <p>D. <math>G = 1 + \frac{R_2}{R_1}</math></p>
15	Alternating current is produced by a voltage source which polarity:	<p>A. Remains the same</p> <p>B. Reverse after period T</p> <p>C. Keeps on reversing with time</p> <p>D. Reverse after every time interval T/2</p> <p>E. Both (C) and (D)</p>
16	If we connect a A.C. volt meter to read A.C. voltage, It would read its:	<p>A. RMS value</p> <p>B. Instantaneous value</p> <p>C. Valued average over a cycle</p> <p>D. Zero</p> <p>E. Both (B) and (C)</p>
17	Electromagnetic waves transmit energy equal to	<p>A. <math>\frac{1}{2} mv^2</math></p> <p>B. <math>m_0 c^2</math></p> <p>C. <math>hf/c</math></p> <p>D. <math>hf</math></p>
18	A resonance curve for RLC series circuit is a plot of frequency versus	<p>A. Voltage</p> <p>B. Current</p> <p>C. Impedance</p> <p>D. Reactance</p>
19	The value of current gain of n-p-n transistor is of the order of	<p>A. tens</p> <p>B. hundreds</p> <p>C. thousands</p> <p>D. ten thousands</p>
20	The output voltage of half wave rectification is in the form of	<p>A. a smooth curve</p> <p>B. a smooth wave</p> <p>C. pulses</p> <p>D. all of the above</p>