

ECAT Physics Chapter 16 Alternating Current

Sr	Questions	Answers Choice
1	For a n-p-n transistor, the conventional current equation can be written as	A. $I_C = I_E + I_B$ B. $I_C = I_E - I_B$ C. $I_C = I_E + I_B$ D. $I_B = I_E + I_C$
2	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. $G = 1 + \frac{R_1}{R_2}$
3	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)
4	At resonance, the phase angle for RLC series resonance circuit equals	A. 0° B. 90° C. 180° D. 270°
5	Mathematical manipulation of the two quantized states can be best carried if they are represented by	A. high - low B. yes - no C. on - off D. 0 - 1
6	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
7	In frequency modulation (FM), the carrier waves amplitude	A. Remains constant B. Increase C. Decreases D. None of these
8	At higher frequency of the alternating current, the capacitive reactance X_C	A. Increases B. Decreases C. Remains the same D. Increases only when the voltage increases
9	The input resistance of the OP-AMP is the resistance between the	A. (-) input and output B. (+) input and output C. (-) and (+) inputs D. between any inputs
10	In an A.C circuit with resistor only, the current and voltage have a phase angle of	A. 90° B. 0° C. 180° D. none of these
		A. Reverses

11	When the emitter-base junction of a transistor is reverse biased, collector current	B. Increases C. Decreases D. Stops
12	Conversion of alternating current into direct current is called	A. amplification B. rectification C. conduction D. polarization
13	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
14	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)
15	Due to the high value of the input resistance, practically, the value of the current which flows between the input terminals is	A. zero B. small C. large D. very large
16	In describing functions of digital systems, a closed switch will be shown as	A. 0 B. 1 C. low D. any one of these
17	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
18	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
19	Which of the following has a great concentration of impurity	A. base B. emitter C. collector D. none of these
20	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 maga ohms