

ECAT Pre General Science Physics Chapter 16 Alternating Current

Sr	Questions	Answers Choice
1	An A.C varies as a function of	A. Current B. Voltage C. Time D. Charge
2	A signal is amplified at the output without any change of phase, if it is applied at the	A. inverting input B. non-inverting input C. at any of the input D. none of these
3	The waveform of alternating voltage is a:	A. Square B. Rectangular C. Saw-tooth D. Sinusoidal E. None of these
4	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
5	Electromagnetic waves transmit energy equal to	A. 1/2 mv ² B. m _o c ² C. hf/c D. hf
6	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
7	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
8	During each cycle, alternating voltage reaches a peak value	A. One time B. Two times C. Four times D. A number of times depending on the frequency
9	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
10	At resonance frequency the impedance of parallel resonance circuit is	A. Maximum B. Minimum C. Zero D. None of the above
11	When the emitter-base junction of a transistor is reverse biased, collector current	A. Reverses B. Increases C. Decreases D. Stops
12	The amplifier which us used to perform mathematical operations electronically is known as	A. calculator B. OP-AMP C. computer D. any one of them
13	The average of A.C. current and voltage over a complete cycle is	A. Maximum B. zero C. Neither zero nor maximum D. None of these

14	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
15	A sinusoidally alternating voltage or current can be graphically represented by a:	A. Vector B. Rotating vector C. Clockwise vector D. Anticlockwise voltage vector E. None of these
16	The most common source of alternating voltage is:	A. Motor B. Transformer C. AC genrator D. Both (A) and (C) E. Both (A) and (B)
17	The closed loop gain of the non-inverting amplifier is given by	A. G = R ₂ /R ₁ B. G = - R ₂ /R ₁ C. G = 1 - R ₂ /R ₁ D. G = 1 + T ₂ /R ₁
18	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
19	At resonance, the phase angle for RLC series resonance circuit equals	A. 0 ° B. 90 ° C. 180 ° D. 270 °
20	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