

ECAT Physics Chapter 16 Alternating Current Online Test

Sr	Questions	Answers Choice
1	The total reactance of a series RLC circuit at resonance is	A. zero B. Equal to the resistance C. Infinity D. Capacitive
2	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
3	When either L or C is increased, the resonant frequency of the RLC series circuit	A. Increases B. Decreases C. Remains the same D. Becomes zero
4	The value of output resistance of OP-AMOP is of the order of	A. few ohms B. few hundred ohms C. several kilo ohms D. several mega ohms
5	The basic circuit elements of A.C circuit are	A. Resistor B. Inductor C. Capacitor D. All the three
6	SI unit of impedance is	A. hertz B. henry C. ampere D. ohms
7	The RMS value of alternating current is:	A. 0.7 times at the peak value B. 0.5 times the peak value C. 0.7 times the Instantaneous value D. Equal to maximum voltage E. None of these
8	The highest value reached by the voltage or current:	A. In quarter cycle is called Instantaneous value B. In half cycle is called peak-to-peak value C. In one cycle is called peak value D. In half cycle is called Instantaneous value E. None of these
9	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)
10	In series RC circuit when $R=X_{C}$, then the phase angle is	A. 0 ° B. 90 ° C. 70 ° D. 45 °
11	A signal appears after amplification, at the output terminal with a phase shift of 180° , if it is applied at	A. inverting input B. non-inverting input C. any one of the input terminal D. none of them
12	Peak value of alternative current is:	A. one of its Instantaneous value B. Equal to its RMS value C. The same as its peak-to-peak value

		D. Both (B) and (C) E. None of these
13	To design a resonant circuit of frequency 100 KHz with an inductor of inductance 5 mH, we need a capacitor of capacitance	A. 5.07 pF B. 50 pF C. 0.507 pF D. 507 pF
14	The bridge circuit of full wave rectification uses	A. one diode B. two diode C. three diode D. four diode
15	At resonance, the phase angle for RLC series resonance circuit equals	A. 0 ° B. 90 ° C. 180 ° D. 270 °
16	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
17	At higher frequency of the alternating current, the capacitive reactance $X_{\mathbb{C}}$	A. Increases B. Decreases C. Remains the same D. Increases only when the voltage increases
18	In describing functions of digital systems, a closed switch will be shown as	A. 0 B. 1 C. low D. any one of these
19	At resonance frequency the impedance of parallel resonance circuit is	A. Maximum B. Minimum C. Zero D. None of the above
20	Which of the following has a great concentration of impurity	A. base B. emitter C. collector D. none of these