

ECAT Physics Chapter 16 Alternating Current

Sr	Questions	Answers Choice
1	In half wave rectification	A. both halves of the input voltage is used B. only one half of the input voltage is used C. either of these D. none of these
2	Average value of A.C voltage during one cycle is	A. 1 B. Zero C. Maximum D. Variable
3	Alternating current can induce voltage because it has a	A. High peak value B. Varying magnetic field C. Stronger field than direct current D. Constant magnetic field
4	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
5	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
6	The basic circuit elements of A.C circuit are	A. Resistor B. Inductor C. Capacitor D. All the three
7	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
8	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
9	Most OP-AMP operates with	A. ± 6 V supply B. ± 10 V supply C. ± 12 V supply D. ± 24 V supply
10	In free space, the speed of electromagnetic waves is	A. 3×10^8 ms ⁻¹ B. 3×10^6 ms ⁻¹ C. 4×10^7 ms ⁻¹ D. 3×10^9 ms ⁻¹
11	In a transistor, the central region is called	A. collector B. emitter C. base D. none of them
12	The value of the potential difference across the depletion region for the case of germanium is	A. 0.3 V B. 0.5 V C. 0.7 V D. 0.9 V
13	The value of current gain of n-p-n transistor is of the order of	A. tens B. hundreds C. thousands D. ten thousands
14		A. Square B. Rectangular

14	The waveform of alternating voltage is a:	C. Saw-tooth D. Sinusoidal E. None of these
15	In a transistor, if the central region is p-type then this type of transistor is known as	A. p-n-p transistor B. n-p-n transistor C. either of these D. none of these
16	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. $G = 1 + \frac{R_2}{R_1}$
17	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
18	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
19	The power factor of resonant series circuit is	A. 1 B. 0 C. -1 D. 0.5
20	A p-n junction is formed when a crystal of silicon is grown in such a way that its one half is doped with trivalent impurity and the other half with a impurity from	A. 2nd group B. fourth group C. fifth group D. sixth group