

ECAT Pre General Science Physics Chapter 16 Alternating Current

Sr	Questions	Answers Choice
1	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
2	The waveform of alternating voltage is a:	A. Square B. Rectangular C. Saw-tooth D. Sinusoidal E. None of these
3	In a normally biased n-p-n transistor, an electron c current I_E flows from the	A. emitter into the base B. collector into the base C. base into collector D. none of these
4	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
5	Which of the following has a great concentration of impurity	A. base B. emitter C. collector D. none of these
6	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
7	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)
8	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
9	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
10	In RLC series circuit, resonance occurs when	A. $X_L > X_C$ B. $X_L < X_C$ C. $X_L = X_C$ D. None of these
11	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
12	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
13	The basic circuit element in A.C. circuits are:	A. Resistor and capacitor B. Resistor and Inductor C. Capacitor only D. Resistor and capacitor

D. Both (B) and (C)
E. None of these

14 The emitter-base junction of a transistor is forward-biased and collector-base junction is reverse-biased. If the base current is increased, its
A. I_C will decrease
B. V_{CE} will increase
C. I_C will increase
D. V_{CC} will increase

15 In which of the following diodes when an electron combines with a hole during the forward biasing, photon of visible light is emitted.
A. photo diode
B. light emitting diode
C. photo voltaic cell
D. all of them

16 If the value of C in a series RLC circuit is increased, the resonant frequency
A. Is not affected
B. Increase
C. Remains the same
D. Decreases

17 Unless stated otherwise, when we speak of A.C. meter reading, we usually mean:
A. Peak value
B. RMS value
C. Instantaneous value
D. Peak-to-peak value
E. Both (A) and (C)

A. 0
B. 90
C. 180
D. 0 and
E. 0 and 180

18 The phase at the positive peak of an A.C. cycle is:

D. 0 and
E. 0 and 180

A. Time period T
B. Half the time period

- 19 The time interval during which the Voltage source changes its polarity once is known as:
- B. Half the time period
 - C. Quarter the time period
 - D. Two third of the time period
 - E. None of these
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- 20 The impedance of RLC series resonance circuit at resonant frequency is
- A. Greater than R
 - B. Equal to R
 - C. Less than R
 - D. None of these
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