

ECAT Pre General Science Physics Chapter 16 Alternating Current

Sr	Questions	Answers Choice
1	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
2	For the normal operation of the transistor, its	A. emitter-base and collector base junctions are forward biased B. emitter-base junction is reversed biased and collector base junction is forward biased C. emitter-base junction is forward biased and collector-base junction is reverse biased D. any one of these
3	In frequency modulation (FM), the carrier waves amplitude	A. Remains constant B. Increase C. Decreases D. None of these
4	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
5	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)
6	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
7	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
8	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
9	In series RC circuit when $R=X_C$, then the phase angle is	A. 0° B. 90° C. 70° D. 45°
10	Alternating current is produced by a voltage source which polarity:	A. Remains the same B. Reverse after period T C. Keeps on reversing with time D. Reverse after every time interval $T/2$ E. Both (C) and (D)
11	A changing magnetic flux creates around itself	A. An electromotive force B. An electric field (changing electric flux) C. Magnetic field D. None of the above
12	The shape of the hysteresis loop is	A. Square B. Rectangular C. Elliptical D. None of these

12	The waveform of alternating voltage is a:	<ul style="list-style-type: none"> C. Saw-tooth D. Sinusoidal E. None of these
13	When the pn-junction is connected reversed biased, its resistance is of the order of	<ul style="list-style-type: none"> A. few ohms B. few kilo-ohms C. few mega-ohms D. few mili-ohms
14	The most common source of alternating voltage is:	<ul style="list-style-type: none"> A. Motor B. Transformer C. AC genrator D. Both (A) and (C) E. Both (A) and (B)
15	In RLC series circuit, resonance occurs when	<ul style="list-style-type: none"> A. $X_L > X_C$ B. $X_L < X_C$ C. $X_L = X_C$ D. None of these
16	Alternating current can be transmitted:	<ul style="list-style-type: none"> A. To long distance B. At very high cost C. At very low cost D. Both (A) and (C) E. Both (A) and (B)
17	The power factor of resonant series circuit is	<ul style="list-style-type: none"> A. 1 B. 0 C. -1 D. 0.5
18	When either L or C is increased, the resonant frequency of the RLC series circuit	<ul style="list-style-type: none"> A. Increases B. Decreases C. Remains the same D. Becomes zero
19	If we connect a A.C. volt meter to read A.C. voltage, It would read its:	<ul style="list-style-type: none"> A. RMS value B. Instantaneous value C. Valued average over a cycle D. Zero E. Both (B) and (C)
20	The basic circuit element in D.C. circuit is:	<ul style="list-style-type: none"> A. A capacitor B. A resistor C. An inductor D. Both (A) and (C) E. Both (A) and (B)