

Physics ECAT Pre Engineering Chapter 16 Alternating Current

Sr	Questions	Answers Choice
1	During the negative half-cycle of the half-wave rectification, the diode	A. does not conduct B. conducts C. either of these D. none of these
2	The magnitude of alternative voltage V:	A. Always increase B. Always decrease C. Remains constant D. Does not remain constant E. None of these
3	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
4	At resonance, the impedance of RLC series circuit is	A. Maximum B. Zero C. Minimum D. Determinate
5	The basic circuit element in D.C. circuit is:	A. A capacitor B. A resistor C. An inductor D. Both (A) and (C) E. Both (A) and (B)
6	An A.C varies as a function of	A. Current B. Voltage C. Time D. Charge
7	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
8	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)
9	At resonance frequency the impedance of parallel resonance circuit is	A. Maximum B. Minimum C. Zero D. None of the above
10	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
11	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
12	The entire wave form of sinusoidal voltage is actually a set of all the:	A. Positive maximum value + V_{max} and negative maximum value - V_{max} B. Positive maximum value + V_{max} and zero C. Zero and negative maximum value - V_{max} D. Any of these E. None of these
13	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

14	The phase angle of a series RLC circuit at resonance is	<p>A. 180°</p> <p>B. 90°</p> <p>C. 0°</p> <p>D. None of the these</p>
15	For the normal operation of the transistor, its	<p>A. emitter-base and collector base junctions are forward biased</p> <p>B. emitter-base junction is reversed and collector base junction is forward biased</p> <p>C. emitter-base junction is forward biased and collector-base junction is reverse biased</p> <p>D. any one of these</p>
16	OP-AMP has the following input terminals	<p>A. one</p> <p>B. two</p> <p>C. three</p> <p>D. four</p>
17	The total reactance of a series RLC circuit at resonance is	<p>A. zero</p> <p>B. Equal to the resistance</p> <p>C. Infinity</p> <p>D. Capacitive</p>
18	The closed loop gain of the inverting amplifier is written as	<p>A. $G = \frac{R_2}{R_1}$</p> <p>B. $G = 1 + \frac{R_2}{R_1}$</p> <p>C. $G = -\frac{R_2}{R_1}$</p> <p>D. $G = 1 - \frac{R_2}{R_1}$</p>
19	The $R_1 = \infty$ and $R_2 = 0$, then the gain of non-inverting amplifier is	<p>A. zero</p> <p>B. infinity</p> <p>C. one</p> <p>D. any one of these</p>
20	The alternative voltage of current is actually measured by:	<p>A. Its RMS value</p> <p>B. Square root of its mean square value</p> <p>C. Instantaneous value</p> <p>D. Peak value</p> <p>E. Both (A) and (B)</p>