ECAT Physics Chapter 16 Alternating Current

Sr	Questions	Answers Choice
1	In describing functions of digital systems, a closed switch will be shown as	A. 0 B. 1 C. low D. any one of these
2	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
3	The open loop gain of OP-AMP is of the order of	A. 10² B. 10³ C. 10⁴ D. 10⁵
4	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
5	In n-p-n transistor, emitter base junction is kept	A. reversed B. forward biased C. may be reversed or may be forward biased D. none of these
6	The basic circuit elements of A.C circuit are	A. Resistor B. Inductor C. Capacitor D. All the three
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	The closed loop gain of the inverting amplifier is written as	A. G = R₂/R₁ B. G = 1 + R₂/R₁ C. G = - R₂/R₁ D. G = 1 - R₂/R₁
9	In a transistor, if the central region is n-type, then this type of transistor is known as	A. n-p-n transistor B. p-n-p transistor C. either of these D. none of these
10	The phase angle of a series RLC circuit at resonance is	A. 180° B. 90° C. 0° D. None of the these
11	When a transistor is used as a switch the circuit in which the current is to be switched OFF and ON, is connected between the	A. base and emitter B. collector and emitter C. base and collector D. any one of these
		A. 9.4 kHz

12	When electrons in the transmitting antenna vibrate 94000 time per second, they produce radiowaves having frequency	B. 940 kHz C. 94 kHz D. None of these
13	The value of the input resistance of OP-AMP is of the order of	A. few ohms B. few hundred ohms C. several kilo ohms D. several maga ohms
14	Which of the following diode is used to derive the current in external circuit when light is incident in the circuit	A. photo diode B. light emitting diode C. photo voltaic cell D. none of these
15	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
16	A sinusoidally alternating voltage or current can be graphically represented by a:	A. Vector B. Rotating vector C. Clockwise vector D. Anticlockwise voltage vector E. None of these
17	If 250V is the RMS value of alternative voltage, then its peak value V_o will be:	A. 353.5V B. 250V C. 175V D. zero E. 400V
18	The phase at the positive peak of an A.C. cycle is:	A. 0º <o:p></o:p> <o:p></o:p> B. 90º <o:p></o:p> C. 180º <o:p></o:p> D. 0 and<span style="font-size:12.0pt;line-height:107%; font-family:"Plantagenet Cherokee","serif";mso-fareast-font-family:Calibri; mso-fareast-theme-font:minor-latin;mso-bidi-font-family:"Times New Roman"; mso-ansi-language:EN-US;mso-fareast-language:EN-US;mso-bidi-language:AR-SA">لا E. <span style="font-size:12.0pt;line-height:107%; font-family:"Plantagenet Cherokee","serif";mso-fareast-font-family:Calibri; mso-fareast-theme-font:minor-latin;mso-bidi-font-family:"Times New Roman"; mso-ansi-language:EN-US;mso-fareast-language:EN-US;mso-bidi-language:AR-SA">لا/2 and 3 <span style="font-size:12.0pt;line-height:107%; font-family:"Plantagenet Cherokee","serif";mso-fareast-font-family:Calibri; mso-fareast-theme-font:minor-latin;mso-bidi-font-

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19	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_cwill decrease B. V_{CE}will increase C. I_Cwill increase D. V_{CC}will increase
20	The entire wave form of sinusoidal voltage is actually a set of all the:	A. Positive maximum value + V_oand negative maximum value -V_o B. Posiotive maximum value +V_oand zero C. Zero and negative maximum value -V_o D. Any of these E. None of these