Physics ECAT Pre Engineering MCQ's Test For Full Book

Sr	Questions	Answers Choice
1	Peak value of alternative current is:	A. one of its Instantaneous value B. Equal to its RMS value C. The same as its peak-to-peak value D. Both (B) and (C) E. None of these
2	The sum of positive and negative peak values is called:	A. Instantaneous value B. Peak value C. Rms valuie D. Peak-to peak-value E. None of these
3	All trigonometric functions (since, cosine tangent etc.) are positive in:	A. 1st Quadrant B. 2nd Quadrant C. 3rd Quadrant D. 4th Quadrant
4	In a building, there are 15 bulbs of 40 watts, 5 bulbs of 100 watts, 5 fans of 80 watts and a heater of 1 kilowatt. The voltage of the electric main is 220 volts. The minimum efficiency of the main fuse of the building will be	A. 0.4 A B. 11.4 A C. 9.8 A D. 10.6 A
5	For a n-p-n transistor, the conventional current equation can be written as	A. I_E+ I_C= I_B B. I_C- I_B= I_E C. I_C+ I_B= I_E D. I_B+ I_E= I_C
6	X-rays produced in a tube operating at 10^5V. The speed of X-rays produced is	A. 3 x 10⁸m/s B. 3.1 x 10⁸m/s C. 2.8 x 10⁸m/s D. 1.88 x 10⁸m/s
7	Majority charge carriers in the p-region of p-n junction are:	A. electrons B. positrons C. Holes D. Neutrons E. None of these
8	Velocity of sound in a diatomic as is 300 m/sec. what is its rms velocity?	A. 400 m/sec B. 40 m/sec C. 430 m/sec D. 300 m/sec
9	Work done by the force of friction is always	A. Positive B. Zero C. Negative D. Maximum
10	When a body moves to and fro motion, this type of motion is called	A. translatory motion B. circular motion C. oscillatory motion D. all of them
11	The time period of a simple pendulum is independent of its:	A. Length B. Mass C. Value of g D. Both A and B
12	The first super conductor was discovered in	A. 1811 B. 1890 C. 1901 D. 1911
13	Crystal of germanium or silicon in its pure form at absolute zero acts as:	A. A conductor B. A semiconductor C. an insulator D. Both (A) and (C) E. Both (A) and (B)
		A. K/2

14	If a given spring of spring constant K is cut into two identical segments, the spring constant of each segment is:	B. 2 K C. 4 K 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	The distance travelled byα-particle in a medium before coming to rest, is called	A. range ofγ-particle B. range of neutrons C. range of particle D. none of these
17	Which one of the following is an example of resonance	A. swing B. tuning a radio C. microwave oven D. all of them
18	A body with frequency of would complete one vibration in:	A. f seconds B. 1/f seconds C. 1 second D. f²second
19	Sadi carnot described an ideal heat engine in	A. 1820 B. 1840 C. 1860 D. 1880
20	Work has a dimension as that of:	A. Torque B. Angular momentum C. Linear momentum D. Power