ECAT Pre General Science Online Test

Sr	Questions	Answers Choice
1	The current in LCR circuit will be maximum when ω is	A. As large as possible B. Equal to natural frequency of LCR system
2	Alternating current can not be measured by D.C. ammeter because	A. A.C. can not pass through D.C. Ammeter B. A.C. changes direction C. Average value of current for complete cycle is zero D. D.C. Ammeter will get damaged
3	The value of current at resonance in series LCR circuit is affected by the value	A. R only B. C only C. L only D. R, C and L
4	A circuit has a resistance of 11 Ω an inductive reactance of 25 Ω and a capacitance reactance of 18 Ω. It is connected to an a.c. source of 200 V and 50 Hz. The current through the circuit (in amperes) is	A. 11 B. 15 C. 18 D. 20
5	In LCR circuit which one of the following statement is correct?	A. L and R oppose each other B. R value increase with frequency C. The inductive reactance increases with frequency D. The capacitive reactance increases with frequency
6	A fuse wire is having 5 ampere current rating. What is the peak value of current it can have?	A. 0.7074 A B. 7.07 A C. 0.0707 A D. 7.707 A
7	An L-R circuit has R = 10 Ω and L = 2 H. If 120 V, 60 Hz A.C. voltage is applied, then current in the circuit will be	A. 0.32 A B. 0.16 A C. 0.48 A D. 0.80 A
8	In and A.C. circuit, the current lags behind the emf. The power factor is 50% In order to make it 100%, What additional component is to be used?	A. Impedance B. Inductance C. Capacitance D. Resistance
9	The henry is the unit for	A. Resistance B. Magnetic flux C. Magnetic field D. Inductance
10	Energy is stored in the choke coil in the form of	A. Heat B. Magnetic energy C. Electric energy D. Electro-magnetic energy
11	The reactance of a coil when used in the domestic A.C. power supply (220 volts, 50 cycles per second) is 50 ohms. The inductance of the coil is nearly	A. 2.2 henry B. 1.6 henry C. 0.22 henry D. 0.16 henry
12	In a capacitive circuit	A. Current leads voltage by phase ofπ/2 B. Voltage leads current by phase ofπ<span style="font-family: "Times New Roman"; font-size: 19.8px;

		color: rgb(34, 34, 34); box-sizing: border-box;">/2 C. Current and voltage are in same phase D. Sometime current and sometime voltage leads
13	The peak voltage in a 220 volt A.C. supply is nearly	A. 220 volt B. 253 volt C. .311 volt D. 440 volt
14	An ideal choke (used along with fluorescent tube) would be	A. A pure resistor B. A pure capacitor C. A pure inductor D. A combination of an inductor and a capacitor
15	A capacitor acts as an infinite resistance for	A. AC B. DC C. Both AC and DC D. Neither AC nor DC
16	A 220 V, 50 Hz. A.C. source is connected to an inductance of 0.2 H and a resistance of 20 ohm in series. What is the current in the circuit?	A. 10 A B. 5 A C. 33.3 A D. 3.33 A
17	In an A.C. circuit, a resistance of R ohm is connected in series with an inductance L. If phase angle between voltage and current be 45°. the value of inductive reactance will be	A. R/4 B. R/2 C. R D. Cannot be found with the given data
18	In L.C.R series A.C. circuit, the phase angle between current and voltage is	A. Any angle between 0 and <u>+ </u>π/2 B. π/2 C. π D. Any angle between 0 andπ/2
19	Thermocouple is an arrangement of two different metals	A. To convert heat energy in to electrical energy B. To produce more heat C. To convert heat energy into chemical energy D. To convert electric energy in to heat energy
20	Current provided by a battery is maximum when	A. Internal resistance equal to external resistance B. Internal resistance is greater than external resistance C. Internal resistance is less then external resistance D. None of these
21	The thermistors are usually made of	A. Metals with low temperature coefficient of resistivity B. Metals with high temperature coefficient of resistivity C. Metal oxides with high temperature coefficient of resistivity D. Semi conducting materials having low temperature coefficient of

		resistivity
22	In Pakistan electricity is supplied for domestic use at 220 V, it is supplied at 110 V in USA. If the resistance of a 60 W bulb for use in Pakistan is R, the resistance of a 60 W bulb for use in USA will be	A. 2 R B. R/4 C. R/2 D. R
23	When three identical bulbs of 60 watt, 200 volt rating are connected in series to a 200 volt supply, the power drawn by them will be	A. 180 watt B. 10 watt C. 20 watt D. 60 watt
24	Which of the following does not obey ohm's law?	A. Copper B. Al C. Diode D. None
25	Battery is charged in motor cars, which is based on	A. Chemical effect B. Magnetic effect C. Electric effect D. None
26	The minimum resistance that can be obtained by connecting 5 resistance of 1/4Ωeach is	A. 4/5Ω B. 5/4Ω C. 20Ω D. 0.05 Ω
27	The resistance of an incandescent lamp is	A. Smaller when switched on B. Greater when switched off C. The same whether it is switch off or switch on D. Greater when switched on
28	A current of 1.6 A is passed through a solution of $CuSO_4$. How many Cu^{2+} ions are liberated in one minute?	A. 3 x 10²⁰ B. 3 x 10¹⁰ C. 6 x 10²⁰ D. 6 x 10¹⁰
29	A heater coil rated at (1000 W - 200 V) is connected to 110 volt line. What will be the power consumed?	A. 200 W B. 302.5 C. 250 W D. 350 W
30	The colour sequence in a carbon resistor in red, brown, orange and silver. The resistance of the resistor is	A. 21 x 10³<u>+</u> 10% B. 23 x 10¹<u>+</u> 10% C. 21 x 10³<u>+</u> 5% D. 12 x 10³<u>+</u> 5%