Physics ICS Part 2 Chapter 16 Online MCQ's Test

Sr	Questions	Answers Choice
1	If V_{rms} be the root mean square value of emf then its peak to peak value is given by	
2	If I_o is the peak value of current, then its root mean square value is given by	B. 2 I_o C. I_o D. 0.7 I_o
3	The value of capacitive reactance is given by	A. Xc = VI B. xc= 1/wc or xc= wL C. xc= 1*wc or xc=Lw D. All of above
4	The peak to peak value of alternating voltage is	A. 2V_o B. V_o D. None of these
5	The reactance is the ratio of	A. V_{rms}/I_{rms} B. V_{rms} x I_{rms} C. I_{rms}/V_{rms} D. V_{max} x V_{rms}
6	In case of capacitor, the unit of reactance is	A. Farad B. Ohm C. Newton D. All of these
7	The unit of impedance is	A. Farad B. Henry C. Tesla D. Ohm
8	The natural frequency of L.C circuit is equal to	
9	The reactance of inductor depends upon	A. L D. All of the above
10	The effective value of any sinusoidal alternating current or voltage is	D. None of the above
11	At high frequency, the current through a capacitor is	A. Small B. Infinity C. Zero D. Large
12	Radio frequency choke is	A. Iron cored B. Air Cored C. Air as well as iron cored D. None of these
13	In frequency modulation, the amplitude of carrier waves is	A. Increases B. Remains constant C. Decreases D. None of these
14	The electromagnetic spectrum contains	A. Radio waves B. X-rays C. Microwaves D. All of these
15	The main reason for world wide use of A.C is because:	A. It is very high power B. It can be transmitted over long distance C. It is cheaper to use D. ALl of above
16	The highest value reached by the voltage or current is one cycle is called:	A. Peak to peak value B. Peak value C. Instantaneous value D. Root mean square value
17	Vrms =	A. 0.7V_◦ B. 0.07V_◦ C. 0.007V_◦ D. 0.75V_◦

18	In purely resistive A.C circuit, instantaneous value of voltage and current:	A. Current lags behind voltage B. Current leads voltage by π/2 C. Both are in Phase D. Voltage leads current by Pase θ=π/2
19	In A.C circuit through a capacitor which one is:	A. Current leads voltage by 90[◦] B. Current lags behind voltage by 90[◦] C. Both will be in phase D. None of above
20	The internal resistance of a capacitor is called:	A. Impedance B. Resistance C. Reactance D. Conductance
21	Xc =	A. 1/2πfc B. 2πfc C. 2π/fc D. fc/2π
22	In A.C circuit of inductor which one is true	A. Voltage leads current by phase angle π/2 B. Voltage lags current by π/2 C. Current leads voltage by π/2 D. Both remain in phase
23	X_L =	A. 2πfL B. 1/2πfL C. 2πfL D. fL/2π
24	The combined effect of resistance and reactance in circuit is called:	A. Impedance B. Inductance C. Capacitance D. None of above
25	Impedance is denoted by:	A. A B. Z C. P D. Q
26	Unit of impedance is:	A. Ohm B. Ohm⁻¹ C. no unit D. Ohm m⁻¹
27	Power dissipation is a pure inductive or in a pure capacitance circuit is:	A. 10⁶ B. 0 C. 10[◦] D. Maximum
28	Power dissipation in A.C circuit is expressed as:	A. P =I_{rms} x V_{rms} Sinθ B. IxVCosθ C. I_{rms}xV_{rms}Cosθ D. I_{rms} x V_{rms} Sin2θ
29	The condition of resonance is:	A. XL = 1/2 Xc B. X_L = X_c C. X_c = 4_{x2} D. None of above
30	The resonance frequency is given by:	A. fr = 2π√LC B. fr = 1/2πLC C. fr = 1/ 2π√LC D. f1 = 1/ 2πC√L
31	In Series resonance circuit the impedance of circuit art resonance frequency, is	A. Maximum B. Minimum C. It is unequal to R D. None of above
32	The AC system is preferred to DC system because:	A. AC voltage can be easily changed in magnitude B. DC motor angular velocity is affected badly C. High voltage AC transmission is less efficient D. Domestic appliance require AC voltage for their operation
33	A capacitor is perfectly insulator for:	A. Direct current B. Alternating current C. Direct as well as alternating current

		D. None of these
34	The peak value of alternating current is $5\sqrt{2}$ A. The mean square value of current will be:	A. 5A B. 2.5A C. 5√2A D. 5²
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36	In chopke coil the resistance X_L an resistance R are:	A. X_L=R B. X_L<<R C. X_L>>R D. X_L=∞
37	In an LRC circiut, the capacitance is made one-fourth, when an resonance . Then what should be change in inductance, so that the circuit remain in resonance?	A. 4 times B. 1/4 times C. 8 times D. 2 times
38	In AC system we generate sine wave form because:	A. It san be easily draw B. It produces least disturbance in electrical circuits C. It is nature standard D. Other waves cannot be produced easily
39	The phase difference between the current and voltage at resonce is:	A. 0 B. π C. -π D. π/2
40	An alternating voltage is given by 20 sin 157 t. Th efrequency of alternating voltage is:	A. 50 Hz B. 25Hz C. 100 Hz D. 75 Hz
41	In LR circiut which one of the following statements is correct?	A. L and R opposes each other B. R value increases with frequency C. The inductive reactance increases with frequency D. The inductive reactance decreases with frequency
42	An alternating quantity (voltage or current) is completely known if we know its:	A. Maximum B. Frequency and phase C. Effective value D. Both (a) & (b)
43	For electromagnetic waves, Maxwell generalized	A. Gauses law for magnetism B. Gauses law for eletricity C. Fradays law D. Amperes law
44	An electromagnetic wave goes from air to glass which of the following does not change?	A. Radio waves B. X-rays C. Ultra violet radiation D. Ultra sond waves
45	The circuit in which current and voltage are in phase, the power factor is:	A. Zero B. 1 C. -1 D. 2
46	Main reason for world wide use of A.C. is	A. It is cheaper B. Transmitted C. Botha a and b D. Reaches in short time
47	During each cycle A.C. voltage reaches a peak value.	A. Once B. Twice C. Thrice D. Four time
		A. 1

48	The mean value of A.C. in a cycle is.	B. 0 C. I2 D. Nil
49	The highest value reached by the voltage or current in one cycle is called.	A. Peak ot peak value B. Peak value C. Instantaneous value D. Root mean square value
50	The main use of A.C is	A. Minimum line losses B. Long distance transmission C. Stepping up to required voltage only D. Steeping down to required voltage only
51	The wave form of alternating voltage is a	A. Cotangent curve B. Cosine curve C. Sine curve D. Tangent curve
52	In Pakistan the frequency of A.C. supply is.	A. 50 Hz B. 60 Hz C. 45 Hz D. 70 Hz
53	Average value of current and voltage over a complete cycle is.	A. Positive B. Negative C. Zero D. Infinite
54	The most common source of an A.C. Voltage is.	A. Motor B. Cell C. Generator D. Thermo couple
55	The peak value of A.C source is 20 A, then its rms value will be.	A. 14.1 A B. 10 A C. 20 A D. 28.2 A
56	The sum of positive and negative peak value called.	A. R.M.S. value B. P-P value C. Peak value D. Average value
57	An A.C. voltmeter reads 220 V, its peak value will be	A. 225 V B. 240 V C. 311.12 V D. 300 V
58	The basic circuit element in A.C. circuit which controls current.	A. Resistor only B. Capacitor only C. Inductor only D. All of these
59	The Basic circuit element in a D.C. circuits which controls the current and voltage is	A. Resistor B. Inductor C. Capisitor D. Transistor
60	Phase difference between V and I of an A.C through resistor is.	A. Zero Degree B. 90 ^o C. 80^o D. 120^o
61	In case of A.C. through resistor V and I are	A. At 0^o with each other B. At 180 ^o with each other C. At 90^o with each other D. At 270 ^o with each other
62	Direct current can not flow through.	A. Inductor B. Resistor C. Transistor D. Capacitor
63	The flow of D.C current is opposed by	A. Resistor B. Induction C. Capacitor D. All of these
64	In the capacitive circuit of A.C. quantity when q= 0 the slope of q-t curve is.	A. Maximum B. Minimum C. Zero D. Negative
65	SI unit of reactance is.	A. Ohm B. Mho C. Farad D. Henry

66	The slope of q-t curve at any instant of time gives.	A. Voltage B. Current C. Charge D. Botha a and b
67	100 micro F capacitor is connects to an AC voltage 24 V and frequency 50 Hz. The reactance of the capacitor is.	A. 30.8 Ohm B. 31.8 Ohm C. 34.8 Ohm D. 40 Ohm
68	At high frequency the value of reactance of capacitor will be.	A. Small B. Zero C. Large D. Infinite
69	If the frequency of A.C. supplied is doubled then the capacitive reactance becomes.	A. Half B. Two C. Four times D. One fourth
70	In pure capacitor A.C. circuit, the current I and charge q are.	A. In phase B. Out of phase C. Parallel to each other D. None of above
71	The device which allows only the continuous flow of AC through it is.	A. Inductor B. Battery C. Thermistor D. Capacitor
72	In a pure inductive A.C. circuit the current.	A. Lags behind voltage by 90 ^o B. Leads the voltage by 90 ^o C. In phase with voltage D. Leads the voltage by 270 ^o
73	The phase difference between current and voltage in an inductive circuit is.	A. zero B. 90 ^o C. 180 ^o D. 45^o
74	An in cudutor may store energy in	A. Its magnetic field B. Its coil C. Its electric field D. A neighboring circuit
75	An inductor of 1 henry inductance has a reactance 500 ohms, then the frequency required is approximately	A. 50 Hz B. 100 Hz C. 80 Hz D. 120 Hz
76	when an inductor comes close to a metallic object, its inductance is.	A. Decreased B. Increased C. Becomes half D. Becomes 4 times
77	The device which allows only the flow of D.C. is.	A. Capacitors B. transformer C. Inductor D. Generator
78	The inductive reactance of a coil is direction proportional to.	A. Inductance B. Resistance C. Frequency of A.C. D. Both frequency of A.C. and inductance
79	The combined effect of resistance and reactance is knows as.	A. Inductance B. Conductance C. Resistance D. Impedance
80	When 10 V are applied to an A.C circuit, the current flowing in it is 100 mA. It impedance is.	A. 100 Ohm B. 10 Ohm C. 1000 Ohm D. 1 Ohm
81	The unit of impedance is.	A. Henry B. Hertz C. Ampere D. Ohm
82	The phase angle of a series RLC circult at resonant frequency is	A. 1/2 B. sigma C. Zero D. sigma /4

83	At resonance, the behavior of R-L-C series circuit is.	A. Resistive B. Capacitive C. Inductive D. Modulative
84	Power dissipated in a pure inductor is.	A. Large B. Small C. Infinite D. Zero
85	The expression P = VI hold only when current and voltage are.	A. In phase B. Out of phase C. At right angle to each other D. At angle of 120 ^o
86	Which consumes small power.	A. Inductor B. Resistor C. Motor D. All of these
87	$X_1$is low for low frequency Fy but Xc is.	A. Zero B. Low C. High D. Same is H
88	At resonance frequency, the impedance of RLC series circuit is.	A. Maximum B. Minimum C. Zero D. Infinite
89	The power factor of RL series circuit is.	A. 0 B. 1 C. Less then 1 D. More than one
90	In RLC series circuit at resonance the phase difference between capacitor and inductor reactance is.	A. 90^o B. 270^o C. 0^o D. 180^o
91	The circuit which compares the two voltages is.	A. LDR B. Sensor C. Comparator D. Logic gate
92	A resistance frequency the impedance of RLC parallel circuit is.	A. Zero B. Infinite C. Maximum D. Minimum
93	In RLC circuit the energy is dissipated in	A. R only B. R and L C. R and C D. L and C
94	In three phase A.C. generator the phase difference between each pair of coil is.	A. 45^o B. 90^o C. 120^o D. 60^o
95	In three phase A.C supply coils are inclined at an angle of.	A. 0^o B. 90^o C. 120^o D. 80^o
96	In three phase voltage across any two lines is about.	A. 220 V B. 230 V C. 400 V D. 430 V
97	In metal detector, we use.	A. L-C circuit B. R-L circuit C. R-C circuit D. RLC series circuit
98	Choke consumes extremely small	A. Current B. Charge C. Power D. Potential
99	Resistance of choke is	A. zero B. Large C. Very small D. Infinite
100	The velocity of an oscillating charge as it moves to and fro along a wire is.	A. Changing B. Constant C. Infinite

		D. zero
101	Electro magnetic waves emitted from radio antenna are.	A. Stationary B. Longitudinal C. Transvers D. Both a and b
102	Electron vibrating 94,000 times each second will produce radio waves of frequency.	A. 94 Hz B. 940 HZ C. 94 Hz D. 490 Hz
103	The A.M. transmission frequencies range from	A. 540 KHz to 1000 KHz B. 540 Khz to 1600 KHz C. 520 KHz TO 1600 KHz D. 520 KHz TO 1400 KHz
104	High frequency radio wave is called as	A. Fluctuate B. Carrier wave C. Matter wave D. Mechanical wave
105	In modulation, low frequency signal is known as	A. Carrier wave B. fluctuated signal C. Modulated carrier signal D. Modulation signal
106	In frequency modulation which factor changed.	A. Amplitude of charge carriers B. Frequency of charge carriers C. Amplitude of signal D. Frequency of signal