

Physics FSC Part 2 Online MCQ's Test

Sr	Questions	Answers Choice
1	In A.C circuit of inductor which one is true	<p>A. Voltage leads current by phase angle $\pi/2$</p> <p>B. Voltage lags current by $\pi/2$</p> <p>C. Current leads voltage by $\pi/2$</p> <p>D. Both remain in phase</p>
2	$X_c =$	<p>A. $1/2\pi f c$</p> <p>B. $2\pi f c$</p> <p>C. $2\pi/f c$</p> <p>D. $f c/2\pi$</p>
3	The internal resistance of a capacitor is called:	<p>A. Impedance</p> <p>B. Resistance</p> <p>C. Reactance</p> <p>D. Conductance</p>
4	In A.C circuit through a capacitor which one is:	<p>A. Current leads voltage by 90°</p> <p>B. Current lags behind voltage by 90°</p> <p>C. Both will be in phase</p> <p>D. None of above</p>
5	In purely resistive A.C circuit, instantaneous value of voltage and current:	<p>A. Current lags behind voltage</p> <p>B. Current leads voltage by $\pi/2$</p> <p>C. Both are in Phase</p> <p>D. Voltage leads current by $\theta = \pi/2$</p>
6	$V_{rms} =$	<p>A. $0.7V$</p> <p>B. $0.07V$</p> <p>C. $0.007V$</p> <p>D. $0.75V$</p>
7	The highest value reached by the voltage or current in one cycle is called:	<p>A. Peak to peak value</p> <p>B. Peak value</p> <p>C. Instantaneous value</p> <p>D. Root mean square value</p>
8	The main reason for world wide use of A.C is because:	<p>A. It is very high power</p> <p>B. It can be transmitted over long distance</p> <p>C. It is cheaper to use</p> <p>D. All of above</p>
9	The magnitude of back emf:	<p>A. Increases with speed of motor</p> <p>B. Decreases with speed of motor</p> <p>C. Remains same</p> <p>D. None of above</p>
10	Commutator was invented by:	<p>A. William bills</p> <p>B. William Gates</p> <p>C. William tells</p> <p>D. William Sturgeon</p>
11	DC generator by William Sturgeon in:	<p>A. 1894</p> <p>B. 1961</p> <p>C. 1834</p> <p>D. 1961</p>
12	A current generator device converts:	<p>A. Mechanical energy into chemical energy</p> <p>B. Chemical energy into electrical energy</p> <p>C. Mechanical energy into electrical energy</p> <p>D. Both b and c</p>
13	Energy density of an inductor is:	<p>A. $U_m = \frac{1}{2} \mu B^2$</p> <p>B. $U_m = 2 \mu B^2$</p> <p>C. $U_m = \frac{1}{2} B^2 / \mu$</p> <p>D. $U_m = 2 B^2 / \mu$</p>

14	Energy stored in an inductor is:	A. $\frac{1}{2}L^2I$ B. $\frac{1}{2}L^2I$ C. $\frac{1}{2}LI^2$ D. $\frac{1}{2}LI$
15	In self induction A coil is connected in _____ with battery and a rheostat.	A. Parallel B. Series C. Both A and B D. None of above
16	The SI unit of Mutual inductance is:	A. $VA^{-1}S^{-1}$ B. VAS^{-1} C. VSA^{-1} D. ASV^{-1}
17	If force in the direction of velocity of conductor, then induced current is directed,	A. Anti clockwise B. Clock wise C. At equilibrium D. None of above