## Physics ICS Part 2 Chapter 15 Online MCQ's Test

| Sr | Questions | Answers Choice |
|---|---|---|
| 1 | Which of the following quantities remain constant in step up transformer? | A. Current<br>B. Voltage<br>C. Power<br>D. Heat |
| 2 | In a coil current change from 2 to 4 A in .05 s . If the average induced emf is 8 V then coefficient of self-inductance is: | A. 0.2 henry<br>B. 0.1 henry<br>C. 0.8 henry<br>D. 0.04 henry |
| 3 | The induced emf in a coil is proportional to: | A. Magnetic flux through the coil<br>B. Rate of change of Magnetic flux through the coil<br>C. Area of the coil<br>D. Product of magnetic flux flux and area of the coil |
| 4 | What is the co-efficient of mutual inductance, when the magnetic flux changes by $2 \times 10^{-2}$ Wb, and change in current is 0.01 A? | A. 2 H<br>B. 3 H<br>C. 1/2 H<br>D. Zero |
| 5 | The north pole of a magnet is brought near a metallic ring. The direction of induced current in the ring will be: | A. Antoclockwise<br>B. Clockwise<br>C. First Clockwise and then Antoclockwise<br>D. First anticlockwise and then Clockwise |
| 6 | The device in which induced emf is statically induced emf is: | A. Transforms<br>B. AC generator<br>C. Alevator<br>D. Dynamo |
| 7 | For inducing emf in a coil the basic requirement is that: | A. Flux should link the coil<br>B. Change in flux should link the coil<br>C. Coil should form a closed loop<br>D. Both (b) and (c) are true |
| 8 | The magnitude of back emf: | A. Increases with sped of motor<br>B. Decreases with speed of motor<br>C. Remains same <br>D. None of above |
| 9 | Commutator was invented by: | A. William bills<br>B. William Gates<br>C. William tells<br>D. William Sturgeon |
| 10 | DC generator by william Sturgeon in: | A. 1894<br>B. 1961<br>C. 1834<br>D. 1961 |
| 11 | A current generator device converts: | A. Mechanical energy into chemical energy<br>B. Chemical energy into electrical energy<br>C. Mechanical energy into electrical energy<br>D. Both b and c |
| 12 | Energy density of an inductor is: | A. $U_M = 1/2\mu_\circ/B^2$<br>B. $U_m = 2\mu_\circ/B$<br>C. $U_M = 1/2B^2/\mu_\circ$<br>D. $U_m = 2B^2/\mu_\circ$ |
| 13 | Energy stored in an inductor is: | A. $1/2L^2 I$<br>B. $1/2L^2/I$<br>C. $1/2LI^2$<br>D. $1/2LI$ |

| 14 | In self induction A coil is connected in_____ with battery and a rheostat. | A. Parallel<br>B. Series<br>C. Both A and B<br>D. None of above |
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| 15 | The Si unit of Mutual inductance is: | A. $VA^{-1}S^{-1}$<br>B. $VAS^{-1}$<br>C. $VSA^{-1}$<br>D. $ASV^{-1}$ |
| 16 | If force in the direction of velocity of conductor, then induced current is directed, | A. Anti clockwise<br>B. Clock wise<br>C. At equilibrium<br>D. None of above |
| 17 | Electromagnetic induction is exactly according to law of: | A. Momentum<br>B. Charge<br>C. Energy<br>D. Mass |