

NAT II Physical Science Physics

Sr	Questions	Answers Choice
1	Energy is stored in the choke coil in the form of	A. Heat B. Magnetic energy C. Electric energy D. Electro-magnetic energy
2	The peak voltage in 220 volt A.C. supply is nearly	A. 220 volt B. 253 volt C. 311 volt D. 440 volt
3	An ideal choked (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
4	A capacitor acts as an infinite resistance for	A. AC B. DC C. Both AC and DC D. Neither AC nor DC
5	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
6	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
7	A particle moving in a magnetic field has increase in its velocity, then its radius of the circle	A. Decreases B. Increases C. Remains the same D. Becomes half
8	A particle is moving in a uniform magnetic field, then	A. its momentum changes but total energy remains the same B. Both momentum and total energy remains the same C. Both changes D. Total energy change but momentum remains
9	The direction of induced current is such that it opposes the very cause that has produced it. This is the law of	A. Lenz B. Faraday C. Kirchoff D. Fleming
10	Quantity that remains unchanged in a transformer is	A. Voltage B. Current C. Frequency D. None of these
11	In an L-R circuit, time constant is that time in which current grows from zero to the value	A. $0.63 I_0$ B. $0.50 I_0$ C. $0.37 I_0$ D. I_0
12	Which quantity is increased in step-down transformer?	A. Current B. Voltage C. Power D. Frequency
13	The number of turns in the primary coil of a transformer is 200 and the number of turns in the secondary coil is 10. If 240 volts ac are applied to the primary, the output the secondary will be	A. 48A B. 24V C. 12V D. 6V
14	The primary winding of transformer has 500 turns whereas its secondary has 5000 turns. The primary is connected to an a.c. supply of 20 V, 50 Hz. The secondary will have an output of	A. 200V, 50 Hz B. 2V, 50 Hz C. 200V, 500 Hz D. 2V, 5 Hz

15

Which of the following particles would experience the largest magnetic force when projected with the same velocity perpendicular to a magnetic field?

- A. Proton
- B. Electron
- C. He^{+}
- D. Li^{+}