NAT I Medical Physics

Sr	Questions	Answers Choice
1	A 220 V, 50 Hz, AC 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
2	In an AC circuit a resistance of R ohm i 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
3	In LCR series AC circuit the phase angle between current and voltage is	A. Any angle between 0 and $\pm\pi/2$ B. $\pi/2$ C. π D. Any angle between 0 and $\pi/2$
4	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
5	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
6	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
7	Quantity that remains unchanged in a transformer is	A. Voltage B. Current C. Frequency D. None of these
8	In an L-R circuit time constant is that time in which current grows from zero to the value	A. 0.63 I_o B. 0.50 I_o C. 0.73 I_o D. I_o