ELECTROMAGNETISM & RADIATION PHYSICS – QUESTION TABLE

(As per TNMGRU / RRB / MRB)

Q.No	Question	Description	Marks	D.T Level	Bloom's Taxonomy
1	Explain the effects of electric current on human tissues.	Tests understanding of physiological effects and clinical relevance.	15	Empathise	Analyze
2	Describe magnetism and explain the magnetic effect of electric current.	Assesses conceptual understanding of current–magnetism relationship.	15	Define	Understand
3	Explain electromagnetic induction with principles and applications in physiotherapy.	Tests analytical and applied understanding.	15	Analyze	Analyze
4	Describe Faraday's laws of electromagnetic induction and their significance.	Evaluates understanding of laws governing induced EMF.	15	Analyze	Understand
5	Explain radiation. Describe types of radiation used in electrotherapy.	Tests comprehensive knowledge of radiation basics.	15	Define	Understand
6	Explain condensers (capacitors): construction, working principle, and uses.	Assesses understanding of charge storage and clinical application.	10	Analyze	Analyze
7	Describe inductance and its effect on current flow in a circuit.	Tests conceptual clarity of inductive effects.	10	Analyze	Understand
8	Explain inverse square law with clinical application.	Evaluates application of radiation law in practice.	10	Apply	Apply
9	Describe laws of radiation absorption and reflection.	Tests analytical understanding of radiation behavior.	10	Analyze	Analyze
10	Explain therapeutic applications of radiation in physiotherapy.	Assesses evaluation of clinical uses.	10	Evaluate	Evaluate
11	Define magnetism.	Tests recall of basic definition.	2	Define	Remember
12	What is electromagnetic induction?	Assesses basic conceptual recall.	2	Define	Remember
13	State Faraday's first law of electromagnetic induction.	Tests factual knowledge of laws.	2	Define	Remember
14	Define condenser (capacitor).	Tests definition-level understanding.	2	Define	Remember
15	What is inductance?	Assesses recall of electrical property.	2	Define	Remember
16	Define radiation.	Tests basic understanding	2	Define	Remember

Q.No	Question	Description	Marks	D.T Level	Bloom's Taxonomy
		of radiation concept.			
17	State inverse square law.	Assesses recall of radiation law.	2	Define	Remember
18	List any two effects of electric current.	Tests recall of physiological effects.	2	Empathise	Remember
19	Mention any two applications of electromagnetic induction.	Assesses applied recall.	2	Ideate	Apply
20	State one safety precaution while using radiation therapy.	Tests practical safety awareness.	2	Test	Apply