

## ELECTRICITY – QUESTION TABLE

(As per TNMGRU / RRB / MRB)

| Q.No | Question   | Description   | Marks | D.T Level | Bloom's Taxonomy |
|------|--|---|-------|-----------|------------------|
| 1    | Define electric current and explain its types.                                 | Tests understanding of basic electrical concepts.       | 15    | Define    | Understand       |
| 2    | Explain direct current and its physiological effects on tissues.               | Assesses clinical application of DC current.            | 15    | Empathise | Analyze          |
| 3    | Describe alternating current and explain different AC waveforms with diagrams. | Evaluates conceptual clarity of AC and waveforms.       | 15    | Define    | Understand       |
| 4    | Explain Ohm's Law and its clinical significance in electrotherapy.             | Tests analytical understanding and application.         | 15    | Analyze   | Analyze          |
| 5    | Describe series and parallel circuits with advantages and disadvantages.       | Assesses application of circuit principles.             | 15    | Prototype | Apply            |
| 6    | Explain resistance and factors affecting resistance in human tissues.          | Tests relationship between resistance and current flow. | 10    | Analyze   | Analyze          |
| 7    | Describe capacitors (condensers): construction, working, and uses.             | Evaluates understanding of charge storage.              | 10    | Analyze   | Analyze          |
| 8    | Explain rheostats and their role in controlling current intensity.             | Tests application of safety and control measures.       | 10    | Ideate    | Apply            |
| 9    | Differentiate between DC and AC currents.                                      | Evaluates comparison skills.                            | 10    | Define    | Analyze          |
| 10   | Explain the importance of waveform parameters in patient comfort.              | Assesses evaluation of waveform characteristics.        | 10    | Evaluate  | Evaluate         |
| 11   | Define Ohm's Law.  | Tests recall of fundamental law.                        | 2     | Define    | Remember         |
| 12   | What is resistance?  | Assesses basic conceptual recall.                       | 2     | Define    | Remember         |
| 13   | Define capacitance.  | Tests definition-level knowledge.                       | 2     | Define    | Remember         |
| 14   | What is a rheostat?  | Assesses recall of electrical component.                | 2     | Define    | Remember         |
| 15   | Define waveform.   | Tests understanding of AC terminology.                  | 2     | Define    | Remember         |
| 16   | State the unit of electrical resistance.                                       | Tests factual knowledge.                                | 2     | Empathise | Remember         |
| 17   | What is meant by current   | Assesses basic clinical                                 | 2     | Define    | Remember         |

| <b>Q.No</b> | <b>Question</b>  | <b>Description</b>                  | <b>Marks</b> | <b>D.T Level</b> | <b>Bloom's Taxonomy</b> |
|-------------|--|-------------------------------------|--------------|------------------|-------------------------|
|             | density?   | electrical concept.                 |              |                  |                         |
| 18          | List any two effects of direct current.                              | Tests recall of DC effects.         | 2            | Empathise        | Remember                |
| 19          | State any two advantages of AC over DC.                              | Assesses comparative understanding. | 2            | Define           | Remember                |
| 20          | Mention one clinical use of a capacitor in electrotherapy equipment. | Tests applied recall.               | 2            | Ideate           | Apply                   |

---