



**PHYSICAL MEDICINE AND REHABILITATION**

**PAPER – I**

PMR/D/14/35/I

Time : 3 hours

Max. Marks : 100

**Important instructions:**

- Attempt all questions in order.
- Each question carries 10 marks.
- Read the question carefully and answer to the point neatly and legibly.
- Do not leave any blank pages between two answers.
- Indicate the question number correctly for the answer in the margin space.
- Answer all the parts of a single question together.
- Start the answer to a question on a fresh page or leave adequate space between two answers.
- Draw table/diagrams/flowcharts wherever appropriate.

1. Draw a well labeled diagram of the cross-section of the spinal cord at T<sub>2</sub> level. Show the lamellar organization of the neurons and describe it. 10
2. Discuss the role of parathyroid hormone and calcitonin in calcium metabolism. 5+5
3. Define spasticity and describe its causes. How does spasticity impact various rehabilitation processes, used in cerebral palsy? 7+3
4. What is the importance of rheumatoid factor, CRP and Anti-CCP in the diagnosis of Rheumatoid Arthritis? 4+3+3
5. What is the pathophysiology of autonomic dysreflexia? 10
6. What are the determinants of gait? How do they help in optimizing energy consumption in the gait cycle? 5+5
7. Discuss the prehension activities of the hand. What is the functional position of the hand? 8+2
8. Describe the ilio-tibial tract. Write a note on tensor fascia lata. 5+5
9. Give a brief account of lung volumes. 10
10. What are the physiological effects of heat? 10

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