



**JHARKHAND**  
**Rai University**  
RANCHI

**PRACTICE SET**  
**End Semester Examination, Spring- 2026**

**Program: B.P.T**

**Semester: VIII**

**Subject: Physiotherapy in Neurological Conditions-II**

**Subject Code: 23A802**

**Course Outcome:**

<b>COURSE OUTCOME</b>	<b>Description</b>
CO1	Assess, identify, and analyze neurological disorders such as stroke, meningitis, encephalitis, Parkinson's disease, cerebellar lesions, multiple sclerosis, and facial palsy, and plan appropriate physiotherapeutic management for these conditions.
CO2	Explain the etiology, classification, clinical features, complications, and management (medical, surgical, and physiotherapeutic) of cerebral palsy, and design individualized home programs with emphasis on carrying techniques and post-surgical care.
CO3	Assess and plan physiotherapeutic management for neurological conditions including motor neuron disease, disseminated sclerosis, transverse myelitis, poliomyelitis, syringomyelia, spina bifida, neuropathies, neuromuscular junction disorders, and myopathies.
CO4	Evaluate, diagnose, and manage peripheral nerve injuries, including understanding their classification, functional assessment, prognosis, and physiotherapeutic interventions following surgical resection or repair.
CO5	Analyze the types, mechanisms, clinical features, and complications of head injury, and apply physiotherapy principles for immediate and postoperative therapeutic management.
CO6	Plan and implement post-surgical physiotherapy management for neurosurgical procedures such as craniotomy, shunt placement, space-occupying lesion (SOL) resection, surgical treatment of spasticity, cervical cord decompression, brain tumors, traumatic brain injury, and reconstructive surgery for poliomyelitis and leprosy.

## UNIT I

### Section A (10 marks)

1. Describe the clinical features, complications, and role of physiotherapy in meningitis. (CO1) (Understand LOT)
2. Explain the pathophysiology and clinical features of stroke. (CO1) (Understand LOT)
3. Discuss the assessment and physiotherapy management for a patient with Parkinson's disease. (CO1) (Apply LOT)
4. Write in detail about the signs with respect to the area involved, functional assessment, and physiotherapeutic intervention for an individual with cerebellar lesion. (CO1) (Apply LOT)
5. Describe the UMN and LMN lesion of facial nerve and its physiotherapeutic management. (CO1) (Understand LOT)
6. Elaborate on the role of physiotherapy in managing a patient with multiple sclerosis during relapse and remission phases. (CO1) (Understand LOT)
7. Describe in detail about the physiotherapy management to improve gait and balance in individuals with Parkinson's disease. (CO1) (Understand LOT)
8. Describe in detail about an assessment tool for stroke severity, including its application in Physiotherapy. (CO1) (Apply LOT)
9. Write down the assessment for an individual who came to your clinic with complaints of difficulty in walking and on examination, an impairment in rapid alternating movement was noted. (CO1) (Apply LOT)

### Section B (20 marks)

10. Design a rehabilitation program for a patient with multiple sclerosis considering its various classification of disease progression. (CO1) (Create HOT)
11. Evaluate the effectiveness of different physiotherapy techniques (e.g., PNF, NDT, task-specific training) used in the rehabilitation of stroke patients. Support your answer with clinical reasoning and outcomes. (CO1) (Evaluate HOT)

## UNIT II

### Section A (10 marks)

12. Explain the significance of carrying techniques in cerebral palsy management. (CO2)  
(Understand LOT)
13. Explain the etiology, classification and clinical features of a child with Cerebral palsy. (CO2)  
(Understand LOT)
14. Describe in detail about GMFCS and its implication in planning for physiotherapy interventions. (CO2) (Understand LOT)
15. Differentiate spastic CP from ataxic CP in terms of clinical features and Physiotherapy interventions. (CO2) (Understand LOT)
16. Describe in detail about the primitive reflexes and their implication in proper development of a child. (CO2) (Apply LOT)

### Section B (20 marks)

17. Develop a goal-oriented therapy plan for a child with ataxic cerebral palsy, including specific interventions for improving coordination, balance, and posture.  
(CO2) (Create HOT)
18. Design a physiotherapy rehabilitation program for a 5 years old spastic CP child specifying the deformities and complications. (CO2) (Create HOT)

## UNIT III

### Section A (10 marks)

19. Describe the key assessment points for diagnosing various types of motor neuron disease.  
(CO3) (Apply LOT)
20. Write in detail about the rehabilitation approaches for complications seen in poliomyelitis.  
(CO3) (Understand LOT)
21. Write down the assessment for an individual who came into your physiotherapy clinic with expressionless face and has a specific snarl when the patient is asked to smile. (CO3)  
(Understand LOT)

22. Explain in detail about the physiotherapy management goals and interventions for different stages seen in a patient with Duchenne muscular dystrophy. (CO3) (Understand LOT)

**Section B (20 marks)**

23. Enlist the management strategies for motor neuron disease, including respiratory and bulbar management. (CO3) (Create HOT)

24. Differentiate myopathy from neuropathy based on their assessment and Physiotherapy management. (CO3) (Analyze HOT)

**UNIT IV**

**Section A (10 marks)**

25. Explain the impact of polyneuropathy on motor function and outline Physiotherapy interventions. (CO4) (Understand LOT)

26. Explain the principles of PT management in peripheral nerve injury and provide a rehabilitation plan post-surgical repair. (CO4) (Apply LOT)

27. Explain the clinical importance of dermatome and myotome testing in clinical setting. (CO4) (Understand LOT)

28. Describe classification of peripheral nerve injuries. (CO4) (Understand LOT)

**Section B (20 marks)**

29. Evaluate and write the assessment for an individual with damage to L4-L5 nerve root. Add a note on the physiotherapy goals and management. (CO4) (Evaluate HOT)

**UNIT V**

**Section A (10 marks)**

30. Write in detail about the etiology of traumatic brain injury and elaborate on its severity. (CO5) (Remember LOT)

31. Explain the assessment of level of consciousness in detail. (CO5) (Understand LOT)

32. Elaborate on the physiotherapy management of a TBI patient with respect to RLA cognitive scale. (CO5) (Understand LOT)
33. Write in detail about the physiotherapy interventions suitable for early rehabilitation phase in traumatic brain injury. (CO5) (Remember LOT)
34. Write in detail about the assessment of higher mental function in a TBI patient. (CO5) (Remember LOT)

**Section B (20 marks)**

35. Analyze the impact of traumatic brain injury on motor, sensory, and cognitive functions, and outline a stage-wise physiotherapy rehabilitation plan. (CO3) (Analyze HOT)
36. Create a comprehensive balance and coordination evaluation protocol for a patient recovering from a traumatic brain injury. Include static and dynamic balance tests and interpret how each impacts physiotherapy management. (CO2) (Create HOT)

**UNIT VI**

**Section A (10 marks)**

37. Define craniotomy and list the indications and complications of craniotomy. (CO6) (Remember LOT)
38. Describe in detail about shunt, its types and complications. (CO6) (Understand LOT)
39. List the various surgical methods for spasticity management. (CO6) (Remember LOT)

**Section B (20 marks)**

40. Create a list of post-surgical physiotherapy management for neurosurgical procedure like craniotomy. Add a note on precautions. (CO6) (Create HOT)

**Summary Sheet:****UNIT Wise**

UNIT	Q.No.	Marks
1	1-11	130
2	12-18	90
3	19-24	80
4	25-29	60
5	30-36	90
6	37-40	50
Total		500

**CO Wise**

UNIT	Q.No.	Marks
1	1-11	130
2	12-18	90
3	19-24	80
4	25-29	60
5	30-36	90
6	37-40	50
Total		500

**BLT Wise**

BLT	Q. No.	Marks
LOT	1-9,12-16,19-22,25-28,30-34,37-39	300
HOT	10,11,17,18,23,24,29,35,36,40	200
Total		500

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**Disclaimer:** -This is a Practice set. The Question in End term examination will differ from the Practice set. This Practice set is meant for practice only.