



**RC-10601**

Seat No. \_\_\_\_\_

**Fourth Year B. Physiotherapy Examination**

**February - 2019**

**Physiotherapy in Neuromuscular Condition**

Time : 3 Hours]

[Total Marks : 100

**Instructions :**

1. The answers should be specific to the questions asked.
2. Draw neat labeled diagram wherever necessary.
3. Each section should be written in spate main answer book.
4. Answer all the questions.

**SECTION - I**

**1 Long essay : (answer any two) 2×10=20**

1. Describe in details about ipsilateral pushing syndrome and its physiotherapy management physiotherapy management.
2. Describe the detailed assessment of spastic cerebral palsy and its physiotherapy management.
3. Explain in detail about physiotherapy management cerebellar ataxia.

**2 Write in short : (answer any two) 2×5=10**

1. Spina bifida
2. Autonomic dysreflexia
3. Functional scales used for multiple sclerosis.

**3 Write in short : (answer any five) 5×2=10**

1. Dynamic gait index
2. Glossopharyngeal breathing
3. Wrist drop
4. Ape thumb deformity
5. Rigidity
6. Facial palsy.

- 4 Multiple choice questions : 10×1=10
1. A 66-year-old woman complains of stiffness and weakness climbing stairs. She has a history of hypertension and diet-controlled type 2 diabetes. On examination, there is mild upper arm weakness, hip flexion is 4/5 bilaterally, with bilateral wasting and flickers of fasciculations in the right quadriceps. Knee extension is 4/5. Dorsiflexion and plantar flexion are strong. Brisk knee and ankle reflexes are elicited, as well as a positive Hoffman's and Babinski's sign. Sensory examination and cranial nerves are normal. Her BM is 8.9, her pulse is regular and her blood pressure is 178/97. What is the most likely diagnosis ?
    - a. MCA stroke
    - b. Myasthenia gravis
    - c. Diabetic neuropathy
    - d. Motor neurone disease
  2. A 23-year-old man is stabbed in the neck. Once stabilized, his MRI shows a right hemisection of the cord at C6. What is the expected result of this injury ?
    - a. Paralyzed diaphragm
    - b. Absent sensation to temperature in the left hand
    - c. Paralysis of the left hand
    - d. Brisk right biceps reflex
  3. Which of the following would be an iatrogenic cause for a spinal cord injury ?
    - a. Neurosyphilis
    - b. Lumbar puncture
    - c. Road traffic accident
    - d. Motor neurone disease
  4. Bovine cough indication of
    - a. Vocal cord palsy
    - b. Facial nerve lesion
    - c. Hypoglossal nerve lesion
    - d. Laryngeal problem
  5. On examination, a patient has 5/5 power in all muscle groups of his upper limbs, 0/5 power in all the muscle groups of his lower limbs. Cranial nerves are intact. Where is the lesion ?
    - a. Muscle
    - b. Neuromuscular junction
    - c. Peripheral nerve
    - d. Spinal cord
  6. Eye movement used to maintain fixation on a moving object
    - a. Saccadic eye movement
    - b. Pursuit eye movement
    - c. Vestibule positional
    - d. Convergence
  7. Stapedius muscle supplied by
    - a. 6<sup>th</sup> cranial nerve
    - b. 7<sup>th</sup> cranial nerve
    - c. 8<sup>th</sup> cranial nerve
    - d. 9<sup>th</sup> cranial nerve

8. On examination, a patient has 5/5 power in his upper limbs, 0/5 power in his lower limbs. Further examination reveals a sensory level at the umbilicus. Cranial nerves are intact. Where is the lesion
  - a. C4
  - b. T4
  - c. T10
  - d. L1
9. Romberg's sign positive indicates
  - a. Cerebellar ataxia
  - b. Sensory ataxia
  - c. Tremor
  - d. Chorea
10. The best splint to correct claw hand is –
  - a. Cock up splint
  - b. Pan cake
  - c. Knuckle bender
  - d. Spring wire suspension

### SECTION – II

- 5 Long essay : (answer any **two**) **2×10=20**
  1. A 34 year male suffered with incomplete spinal cord injury at the D4 level, describe the physiotherapy assessment and management for this patient.
  2. A 73 year old man admitted in ICU for middle cerebral artery stroke, describe the physiotherapy assessment and management in ICU.
  3. Write down the physiotherapy assessment and management for Erb's palsy.
- 6 Write in short : (answer any **two**) **2×5=10**
  1. Duchene Muscular Dystrophy.
  2. Amyotrophic lateral sclerosis.
  3. ASIA scale.
- 7 Write in short : (answer any **five**) **5×2=10**
  1. Hypomimia.
  2. Bulbocavernous reflex.
  3. Wallerian regeneration.
  4. Dystonia.
  5. Lhermitte's sign.
  6. Kernig's sign.
- 8 Multiple choice questions : **10×1=10**
  1. The Barthel's Index is used to measure one of the following
    - a. Muscle strength
    - b. Endurance
    - c. Functional abilities
    - d. Co-ordination
  2. Stereognosis is
    - a. Ability to recognize objects by feel and manipulation
    - b. Ability to hear
    - c. Ability to move joints
    - d. Ability to do ballistic movement

3. Froment sign is
  - a. Ability to grasp a book between thumb and index finger
  - b. Ability to write
  - c. Ability to hold
  - d. Ability to speak
4. Tensilon test is diagnostic of one of the following diseases
  - a. Alzheimer's disease
  - b. Myasthenia gravis
  - c. Parkinson's disease
  - d. Multiple sclerosis
5. Egava's test is used to assess
  - a. Ulnar nerve
  - b. Dorsal interossei
  - c. Both
  - d. Radial nerve
6. Charcot's joint present in
  - a. Diabetic neuropathy
  - b. Stroke
  - c. Multiple sclerosis
  - d. Motor neurone disease
7. Which of the following findings would be the first to occur in duchenne muscular dystrophy.
  - a. Distal muscle weakness
  - b. Proximal muscle weakness
  - c. Impaired respiratory function
  - d. Inability to perform activities of daily living
8. The therapist assists the stroke patient in lateral weight shifting activities while positioned on elbows. Which therapeutic technique would allow the patient to improve dynamic stability with this activity.
  - a. Alternation isometrics
  - b. Approximation
  - c. Rhythmic initiation
  - d. Timing for emphasis
9. Narrow base of support, short bilateral step length and decreased trunk rotation gait pattern is present in
  - a. CVA
  - b. Parkinson's disease
  - c. Post polio syndrome
  - d. Multiple sclerosis
10. A patient with cerebellar dysfunction exhibits signs of dysmetria. Which of the following activities would be the most difficult for the patient ?
  - a. Rapid alternation pronation and supination of the forearms
  - b. Placing feet on floor markers while walking
  - c. Walking at various speeds
  - d. Marching in place