

### Fourth B.P.T.H. (2012) Examination, Winter 2018 NEURO PHYSIOTHERAPY

Total Duration: Section A + B = 3 Hours

Total Marks: 80

### SECTION - A & SECTION - B

Instructions: 1) Use blue/black ball point pen only.

- 2) Do not write anything on the blank portion of the question paper. If written anything, such type of act will be considered as an attempt to resort to unfair means.
- All questions are compulsory.
- 4) The number to the right indicates full marks.

5) Draw diagrams wherever necessary.

- 6) Distribution of syllabus in Question Paper is only meant to cover entire syllabus within the stipulated frame. The Question paper pattern is a mere guideline. Questions can be asked from any paper's syllabus into any question paper. Students cannot claim that the Question is out of syllabus. As it is only for the placement sake, the distribution has been done.
- Use a common answer book for all Sections.

## SECTION - A SAQ (50 MARKS)

Short answer question (any five out of six) :

 $(5 \times 3 = 15)$ 

- a) Figure ground discrimination.
- b) Technique and uses of slow icing.
- c) Clinical assessment of trigeminal nerve.
- d) Facial synkinesis.
- e) Bell's phenomenon.
- f) Combined cortical sensations.

Short answer question (any five out of six):

 $(5 \times 7 = 35)$ 

- a) Visual, cognitive and behavioural disturbance in multiple sclerosis.
- b) Evaluation of sensory and motor strategies of balance.
- c) Motor relearning program for upperlimb in hemiplegic patient.
- d) Autonomous dysreflexia and its management.
- e) Radial nerve palsy Clinical features and Physiotherapy Management.
- f) Physiotherapy management for post polio residual paralysis.

P.T.O.



# SECTION - B LAQ (30 Marks)

- $(1 \times 15 = 15)$ 3. Long answer question (any one out of two):
  - a) A 24 year old male accountant by occupation met RTA 2 month back and diagnosed as fracture T10 vertebra and treated operatively, He comes with weakness and spasticity grade 2 in both lower extremity and loss of bladder control. Discuss ICF (5+5+5=15)and Physiotherapy management with short term and long term goal.
  - b) A 22 year male comes with complains of difficulty in walking, clumsiness of hand and indistinct speech. Onset is insidious, duration 10 years. Abnormal finger nose test with intention tremors, nystagmus, kyphoscoliosis and pes cavus.
    - i) Structural impairments.

2 5

ii) Assessment/tests.

8

iii) Physiotherapy management.

 $(1 \times 15 = 15)$ 

- 4. Long answer question (any one out of two):
  - a) A 60 years old woman with 7 years history of Parkinson's disease having difficulty in walking and is on stage three of hoehn and yahr scale. Discuss ICF and (3+7+5=15)physiotherapy management with short term and long term goals.
  - b) A 2 year old male diagnosed as spastic diaplegic cerebral palsy with grade 2 spasticity in lower limb and grade 1 in upper limb having difficulty in standing and gripping. Discuss ICF and physiotherapy management with short term and (3+7+5=15)long term goals.



# Fourth B.P.Th. (2012) Examination, Summer 2018 NEURO PHYSIOTHERAPY

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#### SECTION - A SAQ (50 Marks)

1. Short answer question (any five out of six):

(5×3=15)

- a) Explain 3 Motor strategies of Balance.
- b) Explain the components of flexion synergy in spastic upper limb.
- c) Enumerate any 3 prenatal causes of cerebral palsy.
- d) Explain the Diagnostic criteria of Motor Neuron Disease.
- e) Explain 3 principles of Motor Relearning Approach.
- f) Breifly explain Changes in Brain Parenchyma with Neuroplasticity.

2. Short answer question (any five out of six):

(5×7=35)

- a) Explain different carrying positions for Cerebral Palsy children with rationale.
- b) Describe Physiotherapy management of Radial Nerve injury.
- c) Write a note on Physiotherapy management for Acute stage of Traumatic Brain injury.
- d) Write a note on the Physiotherapy management of spastic gait in a hemiplegic patient.
- e) Explain Physiotherapy management for ambulation training of a L3 vertebra fracture patient.
- f) Explain in detail the complications seen in Duchenes Muscular Dystrophy.

### SECTION - B LAQ (30 Marks)

3. Long answer question (any one out of two):

 $(1 \times 15 = 15)$ 

- a) A 54 year old bank manager suffered right MCA Cerebrovascular accident 2 weeks back, MRI shows fresh infarct in right internal capsule and corona radiate. He cannot move his Left upperlimb. On examination, he has increased tone in left shoulder flexors, external rotators, hip extensors, adductors, plantar flexors. Voluntory control is zero in upper limb and 2 in lower limb, he has left Facial palsy, he can stand with support. He has history of smoking since 20 years. He is hypertensive since 4 years controlled with medication.
  - i) Explain lifestyle modifications for this patient.

2

ii) Write short term and long term goals for PT management.

5

iii) Write in detail PT management for the impairments.

8

- b) A 44 year old clerk had GI tract infection 3 weeks back, since 2 days he is complaing of weakness in all 4 limbs proximal more than distal, he has sever difficulty in grooming, bathing, eating and walking activities, his sensation are normal, his electrodiagnosis studies show delay in F-wave.
  - i) Discuss the diagnosis with rationale.

2

ii) Write short term and long term goals for PT management.

5

iii) Write in detail PT management for the impairments.



Long answer question (any one out of two): (1×15=	15)
<ul> <li>a) A 23 year old engineering student is diagnosed with Multiple sclerosis since 3 years, he has relapsing-remitting type of the disease. Currently he is walking with support, can manage using public transport, he is attending college regularly, has difficulty in fine motor activities like grooming, writing, using spoon etc.</li> <li>i) Write Short term and long term goals.</li> <li>ii) Write in detail the PT management according to his impairments.</li> </ul>	6 9
<ul> <li>b) A 4 year old boy has difficulty in standing and walking, he shows scissoring pattern, with severe spasticity in adductors and plantar flexors bilaterally, his upper limb motor examination is normal, his intelligence is normal, he had pre-term birth, he has no sensory impairment. He wants to go to school.</li> <li>i) Write short term and long term goals</li> </ul>	6

ii) Write in detail the PT management with emphasis on gait training.



### Fourth B.P.Th. (2012) Examination, Winter 2017 NEURO PHYSIOTHERAPY

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### SECTION - A SAQ (50 Marks)

1. Short answer question (any five out of six):

 $(5 \times 3 = 15)$ 

- a) Enumerate 3 factors responsible for facilitating Motor learning.
- b) Write a note on the Rebound test.
- c) Enumerate 3 causes of cerebral palsy.
- d) Explain the difference between Spasticity and Rigidity.
- e) What are the clinical features of Brown-Sequard syndrome?
- f) Describe the orthosis used for radial nerve injury.
- 2. Short answer question (any five out of six):

 $(5 \times 7 = 35)$ 

- a) Describe Physiotherapy management of Bell's Palsy.
- b) Describe musculoskeletal deformities commonly seen in infantile Spina Bifida and describe its Physiotherapy management. (2+5)
- c) Describe the Physiotherapy management of diabetic foot.
- d) What is muscle tone? Write Physiotherapy management of Hypotonia. (3+4)
- e) Describe common gait abnormalities observed in Parkinson's disease and write it's Physiotherapy management. (2+5)
- f) Explain difference between spastic and flacid bladder. Write Physiotherapy management for both.

P.T.O.

(3+4)



# SECTION - B LAQ (30 Marks)

	(1×15=	15)
3.	Long answer question (any one out of two):  a) A 30 year old female, primary school teacher complains of difficulty in walking and double vision for last 5 months. On examination there is wide base ataxic gait, minor slurring of speech, tremors seen bilaterally in finger to nose test, MRI scan revels numerous white areas indicative of lesion. She lives in house that has few steps to enter inside.	
	i) Give functional diagnosis with rationale.	(3)
	management for her	+7)
	<ul> <li>b) A 45 year old watchman, had a stroke following Left MCA infract 6 months back. At present he has paresthesia on right side of body, right side facial involvement is there, right upper extremity has grade 3 on Voluntary control grading, his dynamic standing balance is affected and he walks with a circumduction gait.</li> <li>i) Describe Functional Impairments with clinical reasoning.</li> <li>ii) Plan short term goals and write Physiotherapy management for the same.</li> </ul>	(7) (8)
1	Long answer question (any one out of two): (1x15=	=15)
4.	a) A 20 year old girl was admitted in ICU for sudden weakness in all four limb, trunk and had undergone elective tracheostomy because of respiratory distress. She was diagnosed as a case of Gullian Barre Syndrome. After 15 days, gradual recovery was seen. She is now in the ward for rehabilitation. She is capable of standing with difficulty and walking with complete support.	
	i) Describe her FMG and NCV picture.	(3)
	<ul> <li>ii) Plan short term goals. Describe Physiotherapy management for the same. (</li> <li>b) A 2 year old male child is referred for physical therapy with a diagnosis of spastic diplegia. He is unable to hold his neck and prefers to lie in supine position. He frequently gets breathless and has frequent episodes of vomiting, scissoring of lower extremities is also present. Parents are well motivated for rehabilitation.</li> </ul>	
	i) Give Home care advise to the parents.	(5) (10)
	ii) Plan short term goals. Write Physiotherapy management for him.	(10)
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### SECTION - A SAQ (50 Marks)

1. Short answer question (any five out of six):

 $(5 \times 3 = 15)$ 

- a) Enumerate any three strategies for improving Dynamic Balance.
- b) Enumerate three treatment techniques for treating Spastic Hand.
- c) Define Spinal shock with its clinical features.
- d) Enumerate three types of Neurological Bladder.
- e) Enumerate the deformities in Spina bifida children.
- f) What is Autonomous Dysreflexia?
- 2. Short answer question (any five out of six):

 $(5 \times 7 = 35)$ 

- a) Write a note on the Physiotherapy management during Acute stage of CVA.
- b) Write a note on the physiotherapy management of meningomyelocele.
- c) Write a note on Motor Re-education in Erb's palsy.



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- d) Describe the principles and techniques of The Rood's approach.
- e) Describe Signs and Symptoms of a Vestibular lesion. Explain in detail about adaptation exercises.
- f) Describe festinating gait. Explain principles of gait training in patient with the Parkinson's disease.

# SECTION - B LAQ (30 Marks)

3. Long answer question (any one out of two):

 $(1 \times 15 = 15)$ 

- a) A 25 year old male has developed weakness in the lower limbs following a bout of viral infection since one week. The weakness has progressed bilaterally. He also has sensory loss along with areflexia. Patient has difficulty in sitting and standing.
  - a) Describe Assessment with ICF.
  - b) Describe Goals of Management With treatment strategies.
- b) A 5 years old spastic diplegic, belongs to well educated family with good socioeconomic back ground is attending a normal school. He requires support for standing and walking.
  - a) Describe Assessment with ICF.
  - b) Describe Treatment strategies.

4. Long answer question (any one out of two):

(1×15=15)

- a) A 20 years old female, a college student has met with a RTA week before. She had a intracranial bleed on the left side. Patient is stable ,conscious and well oriented. She is shifted to ward and is having right side paralysis.
  - a) Describe Assessment with ICF.
  - b) Describe Short and Long term management.
- b) A 45 year old male, shop keeper comes with complaint of sudden onset of weakness in both lower limbs since 2 weeks. He has been diagnosed as Transverse myelitis (D8-D11). He is the sole earner in a family of 4 with 2 children.
  - a) Describe Assessment with ICF.
  - b) Discuss short term & long term management.



### Fourth B.P.Th. (2012) Examination, Winter 2016 NEURO PHYSIOTHERAPY

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### SECTION "A" SAQ (50 Marks)

1. Short answer question (any five out of six):

 $(5 \times 3 = 15)$ 

- a) Enumerate any 3 signs of Upper Motor Lesion.
- b) Enumerate any three pre natal causes of cerebral palsy.
- c) What are the components of Glasgow Coma Scale? Please give 2 clinical conditions where it may be used.
- d) Enumerate any three facilitatory technique used for treating hypotonia.
- e) Enumerate any 3 clinical symptoms of Multiple sclerosis.
- f) Enumerate any 3 Principles of Bobath's neurodevelopmental approach.
- 2. Short answer question (any five out of six):

 $(5 \times 7 = 35)$ 

- a) Describe Physiotherapy management of facial palsy with patient education and advice.
- b) Explain the flaccid and spastic bladder with their PT management.
- c) Write a answer on gait traning for Parkinsons disease.
- d) Describe Physiotherapy management of a Spastic Hand.
- e) Write a answer on the treatment of cerebellar ataxia.
- f) Describe Physiotherapy management of Meningomyelocele.

P.T.O.



# SECTION "B" LAQ (30 Marks)

3. Long answer question (any one out of two):

 $(1 \times 15 = 15)$ 

- a) Discuss the ICF with clinical reasoning and short term Rehabilitation goals and techniques of a 35 years old shopkeeper, who suffered Rt. sided Erb's Palsy during a road traffic accident 5 months back. He complains of difficulty in using his right (7+8)upper extremity. He has a dependent wife and 2 children.
- b) A 20 years old student suffering from Guillain- barre syndrome was admitted in ICU for respiratory involvement for last 5 days. After plasmaphoresis he has shown improvement and is now shifted in the ward. He is presently able to roll and sit but has difficulty in standing. Discuss ICF with clinical reasoning with short term PT (7+8)goals with management.
- 4. Long answer question (any one out of two):

 $(1 \times 15 = 15)$ 

- a) A 29 years old male teacher, who belongs to the middle class and has one child and a non working spouse is diagnosed with Amyotrophic lateral sclerosis 4 months back. He complains of difficulty in writing on the board and fatigue along with difficulty in standing for prolonged period of time. Describe functional impairments with clinical reasoning short and long term PT management. (7+4+4)
- b) A 5 years old school going boy, only son of his parents comes with complain of frequent fall and difficulty to stand up from floor. His calf muscles are appear enlarged. He is diagnosed as a case of DMD. In view of the above, Please explain the following:

Give parental advice for home care. Discuss functional impairments with clinical (3+5+7)reasoning with short term treatment plan.



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### SECTION - A SAQ (50 Marks)

1. Short answer question (any five out of six):

 $(5 \times 3 = 15)$ 

- a) Define neuroplasticity.
- b) Write any three technique of Rood's approach to manage spasticity.
- c) What is sacral sparing?
- d) Write comparison between upper and lower motor neuron lesion.
- e) Gower's sign.
- f) Clinical assessment of facial nerve.

2. Short answer question (any five out of six):

 $(5 \times 7 = 35)$ 

- a) Write Sunderland's classification of nerve injury and physiotherapy management for foot drop.
- b) Describe techniques to train static and dynamic standing balance.
- c) Describe common gait abnormalities observed in Parkinson's Disease and write it's Physiotherapy management. (2+5)
- d) Describe Physiotherapy management of Hemiplegic shoulder.
- e) Describe Physiotherapy management of Cerebellar ataxia.
- f) Describe Physiotherapy management for Duchenne muscular dystrophy.

P.T.O.



### SECTION - B LAQ (30 Marks)

3. Long answer question (any one out of two):

 $(1 \times 15 = 15)$ 

- a) A 21 year old male suffered from traumatic cervical spinal cord injury. He had underwent surgery to stabilize fracture site. At present his bilateral muscle power-biceps are 5/5, wrist extensor are 5/5, triceps 4/5 and no active contraction below C7. Intact pinprick and light touch C2-T4, absent below T4. Intact anal sensation. Proprioception intact in bilateral upper extremity and absent below. His bowel and bladder are involved. Functionally he requires moderate assistance to roll. Write his neurological level of injury. What is the patients ASIA impairment classification? Plan short term goals and long term goals. Write Physiotherapy management for him.
- b) A 7 year old male gives history of frequent falls and difficulty in getting up from floor, he has gained weight during the last 6 months and has hypertrophy of calf. Plan investigations. Plan short term goals and long term goals. Write Physiotherapy management for him. (3+5+7)
- 4. Long answer question (any one out of two):

 $(1 \times 15 = 15)$ 

- a) A 36 year old male who is a dentist is recently diagnosed with Amyotrophic lateral sclerosis experiences difficulty in opening fist, weakness and wasting of small muscles of hand. Painless twitching of the muscles in his forearm and upper arm. He has hyperreflexia in both upper extremities, hyporeflexia in both lower extremities and positive Babinski reflex bilaterally. Write structural and functional impairment. Plan short term goals and long term goals. Write Physiotherapy management for him.
- b) A 50 year old female is a known case of diabetes since last 8 years. She complains of numbness in bilateral lower extremities and while walking she feels as if she is walking on cotton. She also complains of inability to have hold of her footwear (slippers) while walking. Symptoms are gradually progressing. Plan investigations. Plan short term goals and long term goals. Write Physiotherapy management for her.
  (3+5+7)