



DCK-10601

Seat No. _____

Final Year B. P. T. Examination

July - 2022

Physiotherapy in Neurological Conditions
(Old Course)

Time : 3 Hours]

[Total Marks : 100

SECTION - I

- 1 Long answers any two : **2×10=20**
- (a) Describe the typical development of child from 18 to 24 months of age.
 - (b) What are higher functions? Describe in detail the assessment of one higher function.
 - (c) Describe the general principles of Bobath concept of neuro-rehabilitation .
- 2 Write short notes on any two : **2×5=10**
- (a) Protective reflexes
 - (b) Neurogenic pattern in EMG
 - (c) Encephalitis.
- 3 Write short answers of any 5 : **5×2=10**
- (a) Classify cranial nerves based on its function.
 - (b) What is Dejerine-Sottas disease?
 - (c) Define Dysarthria and Dysphagia.
 - (d) What is a Charcot's triad?
 - (e) Name any 4 muscular dystrophies.
 - (f) What is clonus?
- 4 Multiple choice questions : **1×10=10**
- (a) Which of the following suggest definition of the stupor?
 - (i) Patient response only to strong stimulus generally noxious stimuli.
 - (ii) Patient appears drowsy and may fall asleep, if not stimulated in some way. Interaction with therapist may get distracted.
 - (iii) Patient is difficult to arouse from a somnolent state is frequently confused when awake.
 - (iv) All of the above

- (b) A patient with _____ memory problem may not return to physiotherapy department even though therapist asks him to return in an hour.
- (i) Immediate (ii) Long term
(iii) Short term (iv) (i) and (iii) both
- (c) A degenerative disease of substantia nigra which results in depletion of dopamine levels is known as
- (i) Alzheimer's disease (ii) Parkinson's disease
(iii) Motor neuron disease (iv) None of the above
- (d) Which of the following is characterized by the poorly articulated speech with low volume, unnatural emphasis and slow rate?
- (i) Fluent aphasia (ii) Dysarthria
(iii) Dysphagia (iv) Dysphonia
- (e) Under or over shooting while reaching for the target is also known as
- (i) Diplopia (ii) Dysmetria
(iii) Dysarthria (iv) None of the above
- (f) Which of the following is correct interpretation of GCS
- (i) Scores Less than 8 indicate severe brain injury.
(ii) Scores between 9-12 indicate moderate brain injury
(iii) Scores between 13-15 indicate mild head injury
(iv) All of the above are correct
- (g) Middle cerebral artery supplies all the following areas except
- (i) inferolateral and medial surfaces of temporal lobe
(ii) occipital pole
(iii) lateral surface of the cerebral hemisphere
(iv) parts of internal capsule
- (h) Weber's and Rinne's Test are used for testing _____ cranial nerve.
- (i) VIII (ii) VII
(iii) V (iv) IV
- (i) The neurological symptoms of TIA resolve within
- (i) 48 hours (ii) 20 hours
(iii) 24 hours (iv) 12 hours
- (j) Find the incorrect one
- (i) Hoehn and Yahr Scale is used for assessment of mobility in Parkinson's disease.
(ii) Rigidity is velocity dependent.
(iii) Parkinson disease is due to degeneration of nigrostriatal pathways.
(iv) Tremor, rigidity and bradykinesia are the cardinal features of Parkinson disease.

SECTION - II

- 5 Long answers any two : **2×10=20**
- (a) Explain the acute care management of severe brain injury.
 - (b) Discuss the various factors affecting recovery and prognosis following stroke.
 - (c) Discuss the gait impairment in patient with Parkinson's disease. Outline the physiotherapy treatment strategies for the same.
- 6 Write short notes on any two : **2×5=10**
- (a) Balance training to improve standing balance.
 - (b) Transverse myelitis
 - (c) Pathophysiology of Multiple sclerosis
- 7 Write short answers of any 5 : **5×2=10**
- (a) Facial symptoms of myasthenia gravis
 - (b) Tinel's sign
 - (c) Define high risk infant.
 - (d) Describe Heel-to-shin test.
 - (e) Use of Supramalleolar orthosis.
 - (f) Cause of Down's syndrome.
- 8 Multiple choice questions : **1×10=10**
- (a) All of the below muscles are supplied by Median nerve except
 - (i) 1st lumbrical
 - (ii) 2nd lumbrical
 - (iii) 3rd lumbrical
 - (iv) Opponens pollicis
 - (b) Tremor in the hands that is most obvious when the patient is awake and trying to perform an action is most likely due to disease in which of the following structures?
 - (i) Thalamus
 - (ii) Cerebellum
 - (iii) Substantia nigra
 - (iv) Spinal cord
 - (c) A 75-year-old generally healthy man has noticed worsening problems maneuvering over the past 4 months. He has particular trouble getting out of low seats and off toilets. He most likely has which of the following?
 - (i) Poor fine finger movements
 - (ii) Poor rapid alternating movements
 - (iii) Distal muscle weakness
 - (iv) Proximal muscle weakness

- (d) Frenkel's exercise was designed for patients with
 - (i) Cerebellar ataxia
 - (ii) Sensory ataxia
 - (iii) Vestibular ataxia
 - (iv) All of the above
- (e) Myelomeningocele is a
 - (i) Swelling containing meninges and CSF
 - (ii) Swelling containing myelinsheath, meninges and CSF
 - (iii) Swelling containing spinal cord, meninges and CSF
 - (iv) None of the above
- (f) In Poliomyelitis, the virus causes the destruction of
 - (i) Muscle
 - (ii) Peripheral nerve
 - (iii) Anterior horn cells
 - (iv) Posterior horn cells.
- (g) A 55-year-old woman is being examined. The clinician notices the presence of fine twitching movements beneath the surface of the tongue and wasting of one side of the tongue. This finding suggests damage to cranial nerve?
 - (i) V
 - (ii) VII
 - (iii) IX
 - (iv) XII
- (h) Which PNF technique is advocated for parkinsonism?
 - (i) Hold and relax
 - (ii) Rhythmic stabilization
 - (iii) Rhythmic initiation
 - (iv) All of the above
- (i) In neurorehabilitation the primary objective is to
 - (i) Have other brain areas take over the function of the areas affected by stroke
 - (ii) Restore brain functions to its level prior to the stroke
 - (iii) Help the stroke patient recover their spatial and numerical reasoning ability
 - (iv) Retrain the patient to perform most difficult task first and easy task later
- (j) Appreciation of localization of light touch is lost when there is injury of
 - (i) Thalamus
 - (ii) Brainstem
 - (iii) Sensory cortex
 - (iv) Peripheral nerve

