BRAINWARE UNIVERSITY

Term End Examination 2023-2024
Programme – B.Physiotherapy-2021
Course Name – Neurology and Neurosurgery
Course Code - BPTC604
(Semester VI)

Full Marks : 60 **Time : 2:30 Hours**

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A
(Multiple Choice Type Question) 1 x 15=15

1. *Choose the correct alternative from the following :*

(i) Explain the significance of MRI in the investigation of stroke

a) It provides real-time monitoring of blood flow.
b) It is useful for identifying ischemic changes within minutes of symptom onset.
c) It offers superior visualization of acute hemorrhage compared to CT.
d) It is not recommended in acute stroke management

(ii) Discuss the common cause of hemorrhagic stroke

a) Thrombosis
b) Embolism
c) Rupture of blood vessels
d) Vasospasm

(iii) Predict the primary cause of transient ischemic attack

a) Large-artery atherosclerosis
b) Atrial fibrillation
c) Carotid artery stenosis
d) Vasospasm

(iv) Choose the etiology of Autonomic Dysfunction in Horner's syndrome

a) Brainstem injury
b) Spinal cord injury
c) Peripheral nerve injury
d) Cerebral cortex injury

(v) Define Autonomic Dysreflexia

a) Uncontrolled activation of the sympathetic nervous system
b) Uncontrolled activation of the parasympathetic nervous system
c) Dysregulation of the central nervous system
d) Dysregulation of the peripheral nervous system

(vi) Predict the common risk factor for Chorea

a) Advanced age
b) Exposure to heavy metals
c) Genetic predisposition
d) Chronic alcohol abuse

(vii) Select the primary etiology of Dystonia

a) Trauma to the spinal cord
b) Dopamine deficiency in the brain
c) Dysfunction of the basal ganglia and its connections
d) Viral infection of the motor neurons

(viii) Choose the correct definition of Parkinson's disease

a) An autoimmune disorder affecting the central nervous system
b) A neurodegenerative disorder characterized by tremors, bradykinesia, and rigidity
c) A genetic disorder causing involuntary muscle contractions
d) A vascular disorder leading to sudden muscle spasms

(ix) Predict the characteristic feature of radial nerve injury

a) Weakness in finger abduction and sensory loss over the lateral forearm
b) Loss of sensation over the medial aspect of the foot and sole
c) Loss of dorsiflexion and sensation over the dorsum of the foot
d) Inability to extend the wrist and fingers

(x) Select the imaging modality commonly used for assessing peripheral nerve lesions

a) X-ray
b) Ultrasound
c) Computed tomography (CT)
d) Magnetic resonance imaging (MRI)

(xi) Recall a potential complication of Multiple Sclerosis

a) Renal failure
b) Respiratory failure
c) Cardiac arrest
d) Liver cirrhosis

(xii) Discuss a key differential diagnosis for Multiple Sclerosis

a) Amyotrophic lateral sclerosis (ALS)
b) Parkinson's disease
c) Alzheimer's disease
d) Huntington's disease

(xiii) Predict the characteristic feature of poliomyelitis

a) Upper motor neuron signs
b) Flaccid paralysis
c) Progressive muscle weakness
d) Myoclonic jerks

(xiv) Select the most common type of seizure in adults

a) Tonic-clonic seizure
b) Absence seizure
c) Myoclonic seizure
d) Atonic seizure

(xv) Choose the characteristic feature of non-epileptic attacks of childhood

a) Loss of consciousness with tonic-clonic movements
b) Absence seizures
c) Paroxysmal events resembling epileptic seizures without abnormal electrical discharges
d) Myoclonic jerks triggered by sudden stimuli

Group-B

(Short Answer Type Questions) 3 x 5=15

2. Discover the classifications of nerve injury. (3)
3. Memorize the causes and clinical features of poliomyelitis. (3)
4. Explain the classification of motor neuron disease. (3)
5. Explain the clinical features of parkinsonism. (3)
6. Explain the clinical signs and symptoms of ataxia. (3)

OR

Prepare a note on tabes dorsalis. (3)

Group-C

(Long Answer Type Questions) 5 x 6=30

7. Explain the significance of intracranial pressure monitoring in severe head injuries. (5)
8. explain the role of corticosteroids in the treatment of muscular dystrophy. (5)
9. Explain the functions of the corticospinal tract and its role in motor control. (5)
10. Explain the potential complications associated with muscle diseases. (5)
11. Evaluate the role of corticosteroids in the management of acute bacterial meningitis, highlighting their potential benefits and risks. (5)

12. Explain the pathophysiological mechanisms underlying anterior horn cell disorders and their correlation with symptoms observed in affected individuals. (5)

OR

Analyze the differential diagnosis considerations in cases presenting with symptoms resembling poliomyelitis and how diagnostic criteria have evolved over time. (5)

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