



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

2022/2023 ACADEMIC YEAR

SECOND YEAR, SECOND TRIMESTER EXAMINATIONS

FOR THE DEGREE

OF

BACHELOR OF SCIENCE IN PHYSIOTHERAPY

COURSE CODE: BSP 322

COURSE TITLE: NEUROLOGY AND NEUROSURGERY II

DATE: FRIDAY 14TH April 2023

TIME: 8:00am -10:00 am

INSTRUCTIONS TO CANDIDATES

Answer all Questions

Sec A: Multiple Choice Questions (MCQ) 20 Marks

Sec B: Short Answer Questions (SAQ) (40 marks)

Sec C: Long Answer Questions (LAQ) (40 marks)

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over.



SECTION A: MULTIPLE CHOICE QUESTIONS**(20 marks)**

1. Decreased glucose and high polymorphonuclear cell count in the CSF may be seen in:
 - A. Viral Meningitis
 - B. Early Tuberculosis Meningitis
 - C. E. coli Meningitis
 - D. Meningococcal Meningitis
2. Which of the following statements is false of upper limb nerve injuries?
 - A. Injury to the median nerve results in loss of sensation over the palmar aspect of the index finger
 - B. Injury to the radial nerve results in loss of sensation in the anatomical snuffbox
 - C. Injury to the ulnar nerve results in a claw hand
 - D. Injury to the ulnar nerve results in loss of sensation over the thumb
3. In X-linked severe (Duchenne) muscular dystrophy which of the following will apply:
 - A. Nerve Conduction is abnormal
 - B. Urinary Incontinence is common
 - C. It can present with delayed walking
 - D. It is usually diagnosed at birth
4. The following is not a characteristic of early tetanus:
 - A. Rigid abdomen
 - B. Dysphagia
 - C. Hyperpyrexia
 - D. Carpopedal spasm
5. Hypotonia is a not a feature of the following condition
 - A. Syringomyelia
 - B. Cerebellar degeneration
 - C. Glioma of the motor cortex
 - D. Poliomyelitis
6. The following condition is not associated with hydrocephalus:-
 - A. Anaemia
 - B. Klippel-Feil syndrome
 - C. Choroids plexus papilloma
 - D. Dandy-Walker malformation
7. The intracranial tumour most likely to be encountered in a middle-aged man with AIDS is
 - A. Glioblastoma
 - B. Meningioma
 - C. Oligodendroglioma
 - D. Lymphoma
8. Complete excision of a brain abscess used to be the preferred method of treatment. Most commonly, now a brain abscess is treated by?
 - A. Aspiration and drainage of the abscess plus systemic antibiotic administration
 - B. Systemic antibiotic administration
 - C. Aspiration and drainage of the abscess through a small opening in the skull
 - D. Injection of antibiotics into the abscess
9. Which of the following statement is true
 - A. Extradural neoplasms are usually benign
 - B. A typical type of intramedullary tumour is a meningioma
 - C. An intradural extramedullary neoplasm is ordinarily treated by a combination of surgical resection and radiotherapy
 - D. Extradural neoplasms are usually malignant
10. Which of the following statement is false
 - A. Individual axons are disrupted
 - B. Recovery from neurotmesis requires surgical repair

- C. A fascicle in a peripheral nerve divide and recombine along their course
 - D. The patient's age influences the rate and success of nerve regeneration
11. The following are characteristics of ALS except:
 - A. Sensory signs do not occur
 - B. Bladder never involved
 - C. Relentless progression inevitable
 - D. Associated with external ophthalmoplegia
 12. A 63-year-old man presents to the neurology clinic for burning pain in both feet, causing discomfort while walking. He also feels as if something is stuck in his shoe at times. His examination is notable for normal vibration, pin prick, and temperature sensation, although he complains of tenderness to palpation of his feet. His deep tendon reflexes are normal. Which of the following is not true regarding the most likely diagnosis?
 - A. Examination usually shows impaired proprioception and light touch
 - B. Nerve conduction studies are usually normal.
 - C. Disorders of glucose dysregulation cause the majority of cases.
 - D. This condition most often affects myelinated A δ and unmyelinated C-fibers.
 13. In the setting of a left C6 radiculopathy, which of the following muscles will suffer weakness?
 - A. Pectoralis major
 - B. Deltoid
 - C. Adductor pollicis
 - D. Extensor carpi ulnaris
 14. ALS has
 - A. Generalized convulsions are present
 - B. Posterior tract degeneration
 - C. Lateral plus anterior column involvement
 - D. Prominent cerebellar signs
 15. Transverse myelitis usually affects
 - A. Thoracic segments
 - B. Cervical segments
 - C. Lumbar segments
 - D. Sacral segments
 16. Myotonic muscular dystrophy is different from other dystrophies in that:
 - A. Distal muscle weakness occurs before proximal weakness
 - B. Cranial nerve involvement occurs
 - C. Myotonia is present
 - D. All the above
 17. Dementia prominent Parkinsonian features visual hallucination, fluctuation in sensorium and behavior are typically in:
 - A. Lewy body dementia
 - B. Alzheimer's disease
 - C. Frontotemporal dementia
 - D. Huntington's disease
 18. A 55-year-old man presents with a resting tremor of his right arm and a diagnosis of idiopathic Parkinson's disease is made. Which of the following drugs is most likely to help his tremor?
 - A. Amatadine
 - B. Benzhexol
 - C. Cabergoline
 - D. Selegiline
 19. A 24-year-old presents with a 5 month history of low back pain, radiating to his buttocks and back stiffness worse in the morning and worse after periods of inactivity. Which of the following signs is the most likely to be present?
 - A. Exaggerated lumbar lordosis

- B. Positive femoral stretch test
 - C. Positive Trendelenburg test
 - D. Sacroiliac joint tenderness
20. A 17-year-old female presents with three attacks of headache over a six-month period. She describes the headaches as severe, right-sided and lasting for 12 hours and associated with nausea and photophobia. Each is preceded by spots before her eyes. What is the most appropriate initial treatment for this patient?
- A. Diclofenac – at the onset of the next attack
 - B. Ergotamine – suppository at the onset of the next attack
 - C. Paracetamol plus metoclopramide at the onset of the net attack
 - D. Sumatriptan at the onset of the net attack

SECTION B: SHORT ANSWER QUESTIONS

(40 MARKS)

(5 marks each)

1. Does the regeneration of PNS and CNS neurons differ? (YES or NO. justify your answer)
2. Summarize the causes of toxic polyneuropathies
3. Write the different types of Muscular Dystrophy in there broad classifications
4. Outline the symptoms and signs that ALS will not manifest with
5. As pertains to Thoracic Outlet Syndrome mention the tests and the clinical reasoning underlying the tests you may perform during your objective assessment
6. Injury to the femoral nerve will lead to paralysis of which muscles and sensory loss of what aspects?
7. Examine the clinical manifestations of increased intracranial pressure?
8. Discuss the indications of Lumbar decompression procedures

SECTION C: LONG ANSWER QUESTIONS

(40 marks)

1. Discuss the surgical management of head injures depending on their classification and clinical features.
2. Write on spinal tumors classifications, clinical features and physiotherapy management with clinical reasoning.