

[LH 0815]

AUGUST 2015

Sub.Code :2523

B.Sc. NEURO ELECTRO PHYSIOLOGY

THIRD YEAR

PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY AND ASSESSMENT

Q.P. Code : 802523

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Elaborate on:

(3 x 10 = 30)

1. Describe clinical manifestations and major complications of viral encephalitis.
2. Describe clinical features, mechanism of disease and complications in patient with Guillain Barre syndrome.
3. What is meant by dementia? What are the common causes of dementia?

II. Write notes on:

(8 x 5 = 40)

1. Symptoms and mechanism of radial nerve pressure palsy.
2. What is Pyridostigmine, and which conditions is it used in?
3. Definition of Mononeuritis multiplex, list common causes.
4. How do we differentiate Psychosis, Delirium and Dementia?
5. Symptoms and signs of Vitamin A deficiency.
6. Parathyroid and neurology.
7. Clinical presentation of Rapid eye movement sleep behavioral disorder.
8. Definition of Brown Sequard syndrome.

III. Short Answers on:

(10 x 3 = 30)

1. Symptoms and principles of treatment of Blepharospasm.
2. Clinical presentation of Tension headache.
3. Disorders of Femoral nerve.
4. Disorders of Pupillary reactions.
5. Electrophysiology of Post poliomyelitis syndrome.
6. Causes and presentation of Obstructive hydrocephalus.
7. What is meant by Abducens palsy?
8. Mention important uses of Phenobarbitone.
9. Name any post-synaptic disorder of neuromuscular junction and presenting symptoms.
10. What is meant by Postural orthostatic tachycardia syndrome?

**B.Sc. NEURO ELECTRO PHYSIOLOGY
THIRD YEAR
PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY AND
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Q.P. Code: 802523

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Hypoxic ischemic encephalopathy – pathophysiology, clinical features and EEG findings.
2. Discuss basal ganglia anatomy, functional organisation and common disease states.
3. Describe the autonomic pathway and symptoms of autonomic dysfunction,

II. Write notes on: **(8 x 5 = 40)**

1. Late complications of traumatic brain injury.
2. Neurocysticercosis.
3. Neuromyelitis optica.
4. Wernicke- Korsakoff syndrome.
5. Narcolepsy.
6. Facial palsy.
7. Features of lower motor neuron lesions.
8. Duchenne muscular dystrophy.

III. Short answers on: **(10 x 3 = 30)**

1. Transient ischemic attack.
2. Meningioma.
3. Normal pressure hydrocephalus.
4. Classification of inborn errors of metabolism.
5. Vascular dementia.
6. Trigeminal neuralgia.
7. Cerebellar ataxia.
8. Rheumatoid arthritis.
9. Obstetric brachial plexopathy.
10. Multifocal motor neuropathy.

**B.Sc. NEURO ELECTRO PHYSIOLOGY
THIRD YEAR
PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY AND
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Q.P. Code: 802523

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Discuss the anatomy of the venous drainage of the brain and cerebral venous sinus thromboses.
2. Symptoms and signs of meningoencephalitis, causative factors and diagnosis.
3. Clinical features of upper motor neuron lesions and discuss amyotrophic lateral sclerosis (ALS).

II. Write notes on: **(8 x 5 = 40)**

1. Symptoms and signs of brain tumor.
2. Multiple sclerosis.
3. Cobalamine deficiency.
4. Stages of sleep.
5. Oculomotor palsy.
6. Symptoms and signs of cerebellar disease.
7. Guillain Barre Syndrome.
8. Autonomic function tests.

III. Short answers on: **(10 x 3 = 30)**

1. Subdural hematoma.
2. Complications of hypoxic ischemic encephalopathy (HIE).
3. Types of brain edema.
4. Wilson disease.
5. Mild cognitive impairment.
6. Secondary headaches.
7. Tremor.
8. Pachymeningitis.
9. Small fibre neuropathy.
10. Myasthenia gravis.

**B.Sc. NEURO ELECTRO PHYSIOLOGY
THIRD YEAR
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Q.P. Code: 802523

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. Mechanism and morphology of traumatic brain injury.
2. Discuss cerebrospinal fluid circulation (CSF) and hydrocephalus.
3. Anatomy of lumbosacral (LS) plexus and clinical features and diagnosis of LS plexopathy.

II. Write notes on: **(8 x 5 = 40)**

1. Embolic stroke.
2. Herpes simplex encephalitis.
3. Thiamine deficiency.
4. Clinical features of inborn errors of metabolism.
5. Obstructive sleep apnea.
6. Abducens palsy.
7. Parkinsons disease.
8. Spondyloses.

III. Short answers on: **(10 x 3 = 30)**

1. Types of brain tumor.
2. ADEM (Acute disseminated encephalomyelitis).
3. Hepatic encephalopathy.
4. Alzheimer's dementia.
5. Migraine.
6. Friedreich ataxia.
7. Spinal muscular atrophy.
8. Carpal tunnel syndrome.
9. Tilt table test.
10. Myasthenic crisis.

B.Sc. NEURO ELECTRO PHYSIOLOGY

THIRD YEAR

**PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY AND
ASSESSMENT**

Q.P. Code: 802523

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Elaborate on: (3 x 10 = 30)

1. What is meant by dementia? Discuss the common causes of dementia.
2. Discuss cerebrospinal fluid circulation (CSF) and brain edema.
3. Describe in detail about sleep disorders.

II. Write notes on: (8 x 5 = 40)

1. Wernicke- Korsakoff syndrome.
2. Narcolepsy.
3. Facial palsy.
4. Features of lower motor neuron lesions.
5. Symptoms and mechanism of radial nerve pressure palsy.
6. Symptoms and signs of Vitamin A deficiency.
7. Clinical presentation of Rapid eye movement sleep behavioral disorder.
8. Herpes simplex encephalitis.

III. Short answers on: (10 x 3 = 30)

1. Types of brain tumor.
2. ADEM (Acute disseminated encephalomyelitis).
3. Transient ischemic attack.
4. Meningioma.
5. Normal pressure hydrocephalus.
6. Rheumatoid arthritis.
7. Obstetric brachial plexopathy.
8. Multifocal motor neuropathy.
9. Mention important uses of Phenobarbitone.
10. What is meant by Postural orthostatic tachycardia syndrome?

B.Sc. NEURO ELECTRO PHYSIOLOGY
THIRD YEAR
PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY AND
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Q.P. Code: 802523

Time: Three Hours

Maximum : 100 Marks

Answer All questions

I. Elaborate on: **(3 x 10 = 30)**

1. What are the meninges? What are the causes of pyogenic meningitis and what are the findings on cerebrospinal fluid examination?
2. Describe clinical features, mechanism of disease and complications in patient with myasthenia gravis.
3. What is meant by the term dementia? Describe degenerative dementias giving example of the most common type.

II. Write notes on: **(8 x 5 = 40)**

1. Peroneal nerve palsy – causes and presentation.
2. Migraine – mechanism of headache.
3. Large fiber neuropathy – clinical presentation.
4. How do we differentiate Psychosis, Delirium and Dementia?
5. Symptoms and signs of Vitamin A deficiency.
6. What are the neurological disorders associated with parathyroid dysfunction?
7. What are the symptoms of Restless legs syndrome?
8. What are the types of Brachial plexus injury?

III. Short answers on: **(10 x 3 = 30)**

1. What are the symptoms of Writer's cramp?
2. What are the symptoms of Trigeminal neuralgia?
3. What is meant by Abducens palsy?
4. Electrophysiological diagnosis of disorders of phrenic nerve.
5. Clinical presentation and diagnosis of homonymous hemianopia.
6. Diagnosis of amyotrophic lateral sclerosis (motor neuron disease).
7. Definition of Communicating hydrocephalus.
8. What are the uses of Diazepam?
9. Give an example of a tumor from the meninges and common presenting features.
10. Horner's syndrome – definition and mechanism.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[LR 1220]

**DECEMBER 2020
(AUGUST 2020 EXAM SESSION)**

Sub. Code: 2523

**BACHELOR IN NEURO ELECTRO PHYSIOLOGY
THIRD YEAR – (Regulation from 2012-2013)
PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY AND ASSESSMENT
Q.P. Code: 802523**

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. What is meant by Guillain Barre Syndrome, describe clinical features and potential complications?
2. What is Tubercular Meningitis? Describe the causative microorganism and list major complications of Tubercular Meningitis.
3. How are Extrapyrarnidal Disorders classified? Describe the Gait in Hypokinetic Rigid Parkinsonian Disorders and list some common causes for same.

II. Write notes on:

(8 x 5 = 40)

1. Symptoms and mechanism of Radial Nerve Pressure Palsy.
2. Acetylcholine Receptor Antibody – location and disorders associated.
3. Definition of Mononeuritis Multiplex, list common causes.
4. Alzheimer's Disease – diagnosis and complications.
5. Features of Vitamin B12 deficiency.
6. Hypothyroidism and Neurology.
7. Clinical presentation of Rapid Eye Movement Sleep Behavioral Disorder.
8. Definition of Brown Sequard Syndrome.

III. Short answers on:

(10 x 3 = 30)

1. Cervical Dystonia – clinical features and principles of treatment.
2. Migraine Headache – diagnosis.
3. Disorders of Femoral Nerve.
4. Disorders of Pupillary reactions.
5. Electrophysiology of Post Poliomyelitis Syndrome.
6. Causes and presentation of Obstructive Hydrocephalus.
7. Clinical problems with Hypoglossal Palsy.
8. List a few Benzodiazepines and their uses.
9. Pre-Synaptic Disorders of Neuromuscular Junction.
10. Symptoms of Orthostatic Hypotension, mention common causes.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0122]

JANUARY 2022

Sub. Code: 2523

(FEBRUARY 2021 & AUGUST 2021 EXAM SESSION)

B.Sc. NEURO ELECTRO PHYSIOLOGY

THIRD YEAR – (Regulations from 2012-2013 and 2018-2019)

PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY AND ASSESSMENT

Q.P. Code: 802523

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. Define Neuro Muscular Junction. Explain in detail about the aetiology, pathology, investigations, clinical features and management Myasthenia Gravis.
2. Describe clinical features, mechanism of disease and complications in patient Dementias.
3. Discuss in detail about causes, pathophysiology, clinical features and management of various types of sleeping disorders.

II. Write notes on:

(8 x 5 = 40)

1. Syphilitic Myelopathy.
2. What are the neurological disorders associated with parathyroid dysfunction.
3. Hydrocephalus.
4. Rickets.
5. Explain in detail the causes, symptoms, treatment white matter disease.
6. Ataxia.
7. Diabetic neuropathy.
8. Trigeminal neuralgia.

III. Short answers on:

(10 x 3 = 30)

1. Carpel Tunnel Syndrome.
2. What is meant by Abducens palsy?
3. Electrophysiological diagnosis of disorders of phrenic nerve.
4. What are the uses of Diazepam.
5. Gag reflex.
6. Ptosis.
7. Glasgow coma scale.
8. Epileptic cry.
9. Clinical presentation and diagnosis of homonymous hemianopia.
10. Athetosis.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0922]

SEPTEMBER 2022

Sub. Code: 2523

(FEBRUARY 2022 & AUGUST 2022 EXAM SESSIONS)

B.Sc. NEURO ELECTRO PHYSIOLOGY

THIRD YEAR – (Regulations from 2012-2013 & 2018-2019)

**PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY AND
ASSESSMENT**

Q.P. Code: 802523

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. What are meninges? What are the causes of pyogenic meningitis and what are the findings on cerebrospinal fluid examination?
2. Explain in detail about the etiology, types, pathology, investigations, clinical features and management of Traumatic Brain Injury.
3. Define peripheral neuropathy. Write note on various types of peripheral neuropathy.

II. Write notes on:

(8 x 5 = 40)

1. Migraine – mechanism of headache.
2. Symptoms and signs of Vitamin B12 deficiency.
3. Alzheimer's disease.
4. Common types of CNS tumors in Children.
5. Wernicke-Korsakoff Syndrome.
6. What are the types of Brachial plexus injury?
7. Epilepsy.
8. Disorders of Cerebellum.

III. Short answers on:

(10 x 3 = 30)

1. Neurogenic Arthropathy.
2. Saltatory conduction.
3. Erb's Palsy.
4. What is Mini mental state examination?
5. Define Transverse myelitis.
6. Acute Cerebellar Ataxia.
7. Dysmetria.
8. Cauda equina syndrome.
9. Obstructive Sleep Apnea.
10. Arnold Chiari Malformation.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0423]

APRIL 2023

Sub. Code: 2523

B.Sc. NEURO ELECTRO PHYSIOLOGY

THIRD YEAR – (Regulations 2012-2013 & 2018-2019 onwards)

**PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY AND
ASSESSMENT**

Q.P. Code: 802523

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on:

(3 x 10 = 30)

1. What is meant by the term Dementia? Describe Degenerative Dementias giving example of the most common type.
2. Discuss in detail about the etiology, clinical features, investigations and management of Parkinsonism.
3. Definition, pathophysiology, clinical manifestations and management of Multiple Sclerosis.

II. Write notes on:

(8 x 5 = 40)

1. Peroneal nerve palsy – causes and presentation.
2. How do we differentiate Psychosis, Delirium and Dementia?
3. Clinical applications of EMG and NCV in neurological disorders.
4. Post-traumatic stress disorder.
5. Nystagmus.
6. Huntington's disease.
7. Encephalitis.
8. What are the symptoms of Restless legs syndrome?

III. Short answers on:

(10 x 3 = 30)

1. What are the symptoms of Writer's cramp?
2. Muscular dystrophy.
3. List out the difference between Upper Motor Neuron Facial and Lower Motor Neuron Facial Palsy.
4. Polysomnography.
5. Sciatica.
6. Diagnosis of Amyotrophic Lateral Sclerosis (Motor Neuron Disease).
7. Give an example of a tumor from the meninges and common presenting features.
8. Peripheral Vertigo.
9. Neurotransmitters.
10. Myoclonus.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 1123]

NOVEMBER 2023

Sub. Code: 2523

B.Sc. NEURO ELECTRO PHYSIOLOGY

THIRD YEAR – (Regulations 2012-2013 & 2018-2019 onwards)

**PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY AND
ASSESSMENT**

Q.P. Code: 802523

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on: (3 x 10 = 30)

1. Discuss in detail about the causes, clinical features, investigations and treatment of Meningitis.
2. Write in detail about causes, clinical features, investigation and management of Spina bifida.
3. Describe in detail of Pathology, signs, symptoms, investigation, medical and surgical management of Head Injury.

II. Write notes on: (8 x 5 = 40)

1. Dandy Walker Syndrome.
2. Osteoporosis.
3. Polyneuropathy.
4. Sjogren's syndrome.
5. Carpel Tunnel Syndrome.
6. Hypotonia.
7. Stroke.
8. Syringomyelia.

III. Short answers on: (10 x 3 = 30)

1. Bibinski sign.
2. Types of Gait.
3. Phenylketonuria.
4. Lambert Eaton Syndrome.
5. Stages of Sleep.
6. Types of Dementia.
7. Neurotmesis.
8. Radiating pain.
9. Thiamine deficiency.
10. Head ache.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0424]

APRIL 2024

Sub. Code: 2523

**B.Sc. NEURO ELECTRO PHYSIOLOGY
THIRD YEAR – (Regulations 2012-2013 & 2018-2019 onwards)
PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY
AND ASSESSMENT**

Q.P. Code: 802523

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on: **(3 x 10 = 30)**

1. Define Epilepsy. Describe in detail the classification, pathogenesis, clinical features, investigation and management of Epilepsy.
2. Discuss in detail about the causes, clinical, features, investigation and treatment of Brown Sequard Syndrome.
3. Describe clinical manifestations, pathophysiology and major complications of Viral Encephalitis.

II. Write notes on: **(8 x 5 = 40)**

1. Neural tube defects.
2. Duchenne Muscular dystrophy.
3. Autonomic function tests.
4. Glossopharyngeal neuralgia.
5. Alzheimer's disease and its management.
6. Glasgow coma scale.
7. Cerebellar ataxia.
8. Facial palsy.

III. Short answers on: **(10 x 3 = 30)**

1. Visual Analog scale.
2. Cauda Equina Syndrome.
3. Clinical presentation of Tension headache.
4. Narcolepsy.
5. Familial Dysautonomia.
6. Causes of Multiple Sclerosis.
7. REM sleep.
8. Orthostatic hypotension.
9. Dysarthria.
10. Nystagmus.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0125]

JANUARY 2025

Sub. Code: 2523

**B.Sc. NEURO ELECTRO PHYSIOLOGY
THIRD YEAR – (Regulations 2012-2013 & 2018-2019 onwards)
PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY
AND ASSESSMENT
Q.P. Code: 802523**

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on: (3 x 10 = 30)

1. Discuss the signs and symptoms, diagnosis and complications of Tuberculous meningitis.
2. Describe in detail about Parkinsonism and related movement disorder.
3. Classify Peripheral neuropathy. Write notes on various types of Peripheral neuropathy.

II. Write notes on: (8 x 5 = 40)

1. Alzheimer disease.
2. Diagnosis of Migraine.
3. Vitamin B12 deficiency.
4. Vasogenic brain edema.
5. Lacunar stroke.
6. Acute Transverse Myelitis.
7. Classify Cerebellar ataxias.
8. Spinal cord injury.

III. Short answers on: (10 x 3 = 30)

1. Becker's muscular dystrophy.
2. Lower motor neuron lesion.
3. Hydrocephalus.
4. Mitochondrial disorders.
5. Febrile seizures.
6. Klumpke's paralysis.
7. Trigeminal Neuralgia.
8. Multiple sclerosis.
9. Lamber-Eaton Myasthenic Syndrome.
10. Parasomnias.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 0425]

APRIL 2025

Sub. Code: 2523

**B.Sc. NEURO ELECTRO PHYSIOLOGY
THIRD YEAR – (Regulations 2012-2013 & 2018-2019 onwards)
PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY
AND ASSESSMENT
Q.P. Code: 802523**

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on: (3 x 10 = 30)

1. What are the components of the Autonomic Nervous System (ANS)? Discuss some of the ANS disorder. How will you diagnose ANS disorder?
2. Discuss the normal milestones of development of a newly born child till the age of three years. What are the neurological problems of the newborn?
3. What are the roots involved in the formation of brachial and lumbar plexuses? Discuss the various disorders affecting both the plexuses. Briefly discuss the clinical differences to differentiate polyradiculopathy from a plexopathy.

II. Write notes on: (8 x 5 = 40)

1. Bacterial Meningitis.
2. Becker muscular dystrophy.
3. Entrapment Neuropathies.
4. Clinical signs of lower motor neuron disease.
5. Rheumatoid Arthritis.
6. Hyperkinetic movement disorders.
7. Bell's palsy.
8. Circadian rhythm sleep disorders.

III. Short answers on: (10 x 3 = 30)

1. Dysdiadochokinesia.
2. Tension Headache.
3. Critical illness neuropathy.
4. Causes of viral encephalitis.
5. Types of strokes.
6. Causes of Nutritional diseases of Nervous system.
7. Surgical management of traumatic brain injury.
8. Minimal Cognitive Impairment (MCI).
9. Cytotoxic Brain Edema.
10. Types of Brain tumours.

THE TAMIL NADU DR. M.G.R. MEDICAL UNIVERSITY

[AHS 1125]

NOVEMBER 2025

Sub. Code: 2523

**B.Sc. NEURO ELECTRO PHYSIOLOGY
THIRD YEAR – (Regulations 2012-2013 & 2018-2019 onwards)
PAPER III – APPLICATION OF CLINICAL NEUROPHYSIOLOGY
AND ASSESSMENT
Q.P. Code: 802523**

Time: Three Hours

Answer ALL Questions

Maximum: 100 Marks

I. Elaborate on: (3 x 10 = 30)

1. Describe the various autonomic function tests. Describe the clinical features, mechanism and diagnosis of Postural Orthostatic Tachycardia Syndrome.
2. Describe causes, pathophysiology, symptoms, signs and diagnosis of Cerebral venous sinus thrombosis.
3. Describe the Brachial plexus. Describe the clinical features, types, causes and diagnosis of brachial plexopathy.

II. Write notes on: (8 x 5 = 40)

1. Clinical features, diagnosis and complications of herpes simplex encephalitis.
2. Transient Ischemic Attack – clinical features and diagnosis.
3. Neurological manifestations of Thiamine deficiency.
4. Neurological complications of systemic diseases affecting nervous system.
5. Clinical features, causes and diagnosis of osteoporosis.
6. Clinical features and diagnosis of Motor Neuron disease.
7. Types, clinical features and treatment of dystonia.
8. What is hypoxic ischemic encephalopathy and its clinical features and diagnosis.

III. Short answers on: (10 x 3 = 30)

1. List the degenerative dementias.
2. What is mononeuritis multiplex and list four causes of it.
3. Clinical features of Guillain Barre Syndrome.
4. What is subdural hematoma and its causes and diagnosis?
5. Clinical features of obstructive sleep apnea and its diagnosis.
6. Clinical features and causes of Cerebellar Ataxias.
7. Types of gait dysfunction.
8. Clinical features of Normal pressure hydrocephalus.
9. Clinical features of Myasthenic crisis.
10. List causes of inborn errors of metabolism in children.
