Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Science Technology Degree Examination – 30-May-2024

Time: Three Hours | Max. Marks: 80 Marks

ADVANCED NEURO SCIENCES TECHNOLOGY - I

Q.P. CODE: 2845

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Define RNST, Pictorial presentation of RNST in pre synaptic and post synaptic disorders and explain the disorders in detail.
2. Draw facial nerve pathway and branches Bell's palsy in detail investigations and management.
3. Describe the stimulation and recording parameters for evaluation Somato sensory evoked potentials and add a note on tibial SSEP.

SHORT ESSAYS (Answer any Six) 6 x 5 = 30 Marks

4. Trigeminal nerve and branches.
5. Neuromuscular junction.
6. VEP.
7. Blink reflex.
8. Femoral nerve.
9. Normal median SSEP with diagram.
10. Computer application in EP's.
11. Types of stroke.

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

12. Tarsal tunnel syndrome.
13. Tinel's test.
14. Neuronotmesis.
15. Draw diagram of optic pathway.
16. Conduction velocity.
17. Terminal branches of facial nerve.
18. Types of MEP.
19. Normal waveforms of BAER.
20. Dementia.
21. Temporal dispersion.
22. Internal noise.
23. Treatment for myasthenia gravis.

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Science Technology Degree Examination – 03-Jun-2024

Time: Three Hours | Max. Marks: 80 Marks

ADVANCED NEURO SCIENCES TECHNOLOGY - II

Q.P. CODE: 2846

Your answers should be specific to the questions asked

Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. What is needle electromyography and types of needles and add a brief note on SFEMG
2. Discuss in detail sympathetic skin response and R-R interval
3. Discuss in detail about pediatric PSG

SHORT ESSAYS (Answer any Six) 6 x 5 = 30 Marks

4. Antons syndrome
5. Stages of sleep
6. Disorders of body schema
7. Myotonic dystrophy
8. REM sleep disorders
9. Types of apnea
10. Duchenne Muscular dystrophy
11. Patient safety in EMG

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

12. Define NREM sleep
13. POSTS
14. Narcolepsy
15. Name few Autosomal dominant disorders.
16. Broca aphasia
17. Insomnia
18. PLEDs
19. Capinography
20. Sympathetic nervous system
21. Short note fibrillation
22. Enumerate parameters recorded in AFT
23. Short note on MUP

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Science Technology Degree Examination – 05-Jun-2024

Time: Three Hours | Max. Marks: 80

Systemic Diseases

Q.P. CODE: 2847

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Define Stroke. Write in detail on Ischemic Stroke
2. Write in detail on disorders of speech and language
3. Write in detail on various Muscular dystrophies

SHORT ESSAYS (Answer any Six) 6 x 5 = 30 Marks

4. Paraplegia
5. Microcephaly
6. Epileptic Syndrome
7. Leprosy
8. Disturbances of Cerebrospinal fluid
9. Congenital muscular disorders
10. Syncope
11. Cervical Spondylosis

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

12. Sleep disorders
13. Treatment for Botulism
14. Classify Inflammatory myopathies
15 Types of Hydrocephalus
16. Hematoma
17. Management for head injury
18. Investigation for Meningitis
19. Restless Leg syndrome
20. Name few Metabolic disorders
21. Clinical features of Stroke
22. Treatment for Bed sores
23. Name few Peripheral Neuropathies

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Sciences Technology Degree Examination – 30-May-2024

Time: Three Hours Max. Marks: 100

ADVANCED TECHNIQUE- I (RS-3)
Q.P. CODE: 3311

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) 2 x 10 = 20 Marks

1. Describe in detail about BAEP. Write a note on waveforms of BAEP and its Inter peak latency.

2. Explain in detail about RNS (Repetitive Nerve stimulation).Add a note on Neuromuscular junction (NMJ) & its disorders.
   OR
   Explain in detail about Neurodegenerative disorders

SHORT ESSAYS (Question No 5 & 10 choice) 10 x 5 = 50 Marks

3. Visual pathway
4. Corticospinal tract
5. Abnormalities of CMCT
   OR
   Trigeminal Neuralgia
6. CIDP
7. Lumbar plexus
8. Axonotemisis and Wallerian degeneration
9. Lumbosacral plexopathy
10. Compare normal waveforms of BAER with MS & CP angle tumor
    OR
    Neuropathy and its types
11. Post synaptic disorder
12. Neurodemyelinating disorders

SHORT ANSWER 10 x 3 = 30 Marks

13. Define SIDP
14. Multifocal motor neuropathy
15. Temporal dispersion
16. Deep peroneal nerve
17. Define AMSAN
18. Types of coils use in MEP
19. Facial nerve palsy
20. Axonal reflex
21. Variables influencing in VEP
22. Pre synaptic disorder

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Sciences Technology Degree Examination – 03-Jun-2024

Time: Three Hours | Max. Marks: 100

ADVANCED TECHNIQUE- II (RS-3)

Q.P. CODE: 3312

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) — 2 x 10 = 20 Marks

1. Write in detail on paediatric polysomnography.
2. Explain in detail on sympathetic skin response test and R-R Interval.
   OR
   Computer application in EMG.

SHORT ESSAYS (Question No 5 & 10 choice) — 10 x 5 = 50 Marks

3. Duchenne muscular dystrophy.
4. Fibrillations.
5. Polymyositis.
   OR
   Neuropathy associated with AIDS.
6. Amyotrophic lateral sclerosis and multiple sclerosis.
7. Single fiber EMG.
8. REM sleep disorder.
9. Motor unit potentials.
10. Vagal nerve stimulation.
    OR
    Aphasia and its types.
11. Autosomal dominant diseases.
12. Patient safety in EMG.

SHORT ANSWER — 10 x 3 = 30 Marks

13. Jitter and blocking.
14. Myotonic dystrophy
15. Types of needles in EMG.
16. Stages of sleep.
17. Add a note on the types of apnoea.
18. Anton's syndrome.
19. Name some spatial disorders.
20. Wilson's disease.
21. End plate potential.
22. Deep tendon reflex.

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Sciences Technology Degree Examination – 05-Jun-2024

Time: Three Hours | Max. Marks: 100

SYSTEMIC DISEASES (RS-3)

Q.P. CODE: 3313

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) — 2 x 10 = 20 Marks

1. Classify Epilepsy. Write in detail on various Epileptic syndromes
2. Write in detail on various Muscular dystrophies
   OR
   Write in detail on disorders of speech and language

SHORT ESSAYS (Question No 5 & 10 choice) — 10 x 5 = 50 Marks

3. Microcephaly
4. Syncope
5. Insomnia
   OR
   Myotonia
6. Sleep disorders
7. Congenital muscular disorders
8. Hydrocephalus
9. Leprosy
10. Migraine
    OR
    Cervical Spondylosis
11. Viral Encephalitis
12. Vertigo

SHORT ANSWER — 10 x 3 = 30 Marks

13. Hemiparesis
14. Name few Metabolic disorders
15. Types of Stroke
16. Treatment for Botulism
17. Management for Dementia
18. Loss of Consciousness
19. Myasthenic Syndrome
20. Paraplegia
21. Types of Aphasia
22. Bedsores

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Science Technology Degree Examination – 22-Nov-2024

Time: Three Hours Max. Marks: 80

ADVANCED NEURO SCIENCES TECHNOLOGY - I
Q.P. CODE: 2845

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Describe the physiology of visual pathway and discuss about visual evoked potential
2. Detail on lumbar plexus. Make note on its clinical conditions
3. Explain auditory evoked potentials. Add a note on variables and clinical conditions

SHORT ESSAYS (Answer any Six) 6 x 5 = 30 Marks

4. **Blink reflex.**
5. Motor evoked potential
6. Polyneuropathy
7. Internal noise
8. Optic pathway
9. Depolarization and repolarization
10. SSEP recording in upper limb – principle and techniques
11. Common mode rejection

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

12. Ulnar nerve palsy
13. Temporal dispersion
14. Axonal reflex
15. C 6 radiculopathy
16. Wrist drop – causes
17. Wallerian degeneration
18. Types of late responses
19. Saphenous nerve
20. **Non limb nerves.**
21. Median nerve inching technique
22. Disorders associated with F waves abnormality
23. Causes of foot drop

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Sciences Technology Degree Examination – 22-Nov-2024

Time: Three Hours Max. Marks: 100

ADVANCED TECHNIQUE- I (RS-3)

Q.P. CODE: 3311

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) 2 x 10 = 20 Marks

1. What is Evoked potential? Principles of averaging / recording techniques. Put a note on Evoked potential instrumentation
2. Lumbar Radiculopathies, Lumbar plexus. Add a note on Lumbar spinal stenosis
   OR
   What is Bell's palsy? Discuss the pathway and branches of facial nerve

SHORT ESSAYS (Question No 5 & 10 choice) 10 x 5 = 50 Marks

3. Neuropathies associated with AIDS
4. Spinal cord injury
5. Saphenous nerve
   OR
   Computer application in evoked potentials
6. Sacral plexus
7. Cervical Spondylosis and Myelopathy surgical monitoring of SSEP
8. Gullian Barre syndrome
9. Temporal dispersion
10. Signal to noise ratio
    OR
    Blink reflex
11. Tarsal tunnel syndrome
12. Tibial SSEP

SHORT ANSWER 10 x 3 = 30 Marks

13. Conduction block
14. Axonotmesis
15. Clinical signs of carpal tunnel syndrome
16. VEP in paediatrics
17. Normal median SSEP
18. CIDP
19. Branches of trigeminal nerve
20. Ulnar nerve
21. Abnormalities in CMCT
22. Autonomic neuropathy

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Science Technology Degree Examination – 25-Nov-2024

Time: Three Hours Max. Marks: 80

ADVANCED NEURO SCIENCES TECHNOLOGY - II

Q.P. CODE: 2846

Your answers should be specific to the questions asked

Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Repetitive nerve stimulation. Explain techniques and abnormalities
2. Explain stimulating and recording techniques for Brainstem Auditory Responses (BSAER) in which disease conditions are these tests undertaken. Name and describe two abnormalities seen in BSAER including the disorders in which these are seen.
3. Blink reflex-stimulation and recording techniques and abnormalities

SHORT ESSAYS (Answer any Six) 6 x 5 = 30 Marks

4. Conduction block in peripheral nerve disorders
5. Intraoperative monitoring for scoliosis
   Or
   Myopathic patterns..
6. Single fibre EMG
7. Autonomic function tests
8. Facial motor nerve conduction tests
9. Long exercise test
10. EMG in myopathy
11. Intraopertive monitoring in awake craniotomy
    Or
    Types of needles used in EMG.

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

12. F wave chronodispersion
13. Obturator neuropathy
14. Stereo-EEG
    Or
    End-tidal Capnography
15. Abnormal spontaneous activity in EMG
16. Sympathetic skin responses
17. Diabetic axonal peripheral neuropathy
18. Multi-mup analysis in EMG
19. Corticospinal tract
20. Diagram of peripheral nervous system
21. Inferior temporal electrodes
22. Three features of a neurogenic EMG
23. Giant Somatosensory Evoked Potentials (SSEPs)

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Correction 25.11.2024 Morning

Q.P Code: 2846

Replace the question No.5as

1. **Myopathic patterns.**

Replace the question No.11 as

11. Types of needles used in EMG.

Replace the question No.14 as

14. End-tidal Capnography

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Science Technology Degree Examination – 27-Nov-2024

Time: Three Hours Max. Marks: 80

Systemic Diseases

Q.P. CODE: 2847

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Answer any Two) 2 x 10 = 20 Marks

1. Write in detail on Multiple sclerosis
2. Write in detail on Regulation of BP
3. Classify Degenerative disorders. Write in detail on Extra pyramidal disorders

SHORT ESSAYS (Answer any Six) 6 x 5 = 30 Marks

4. Vertigo
5. Toxic and Metabolic disorders
6. Headache
7. Bacterial infection
8. Spinal cord injury
9. Diabetes Mellitus
10. Autosomal dominant disease
11. Hydrocephalus

SHORT ANSWERS (Answer any Ten) 10 x 3 = 30 Marks

12. Head injury
13. Vitamin B12 deficiency
14. Management for Backache
15 Pathophysiology of Alzheimer's disease
16. Treatment for Chorea
17. Craniofacial pains
18. Treatment for CIDP
19. Types of Aphasia
20. Investigations for AIDP
21. Name few Epileptic syndromes
22. Pathophysiology for Myasthenia Gravis
23. Treatment for Botulism

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Sciences Technology Degree Examination – 25-Nov-2024

Time: Three Hours | Max. Marks: 100

ADVANCED TECHNIQUE- II (RS-3)

Q.P. CODE: 3312

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) — 2 x 10 = 20 Marks

1. Write in detail on Duchenne muscular dystrophy.
2. Explain in detail on stages of sleep.
   OR
   Explain in detail about Paediatric Polysomnography.

SHORT ESSAYS (Question No 5 & 10 choice) — 10 x 5 = 50 Marks

3. Recording techniques in EMG.
4. Paediatric polysomnography.
   Or
   Parasomnias
5. Fasciculations.
   OR
   Types of Needles in EMG.
6. Myopathic patterns.
7. Computer application in EMG.
8. Insertional activity.
9. Sudden infant death syndrome.
10. Sympathetic skin response test.
    OR
    Patient safety in EMG.
11. Gastroesophageal reflex.
12. Spatial disorder.

SHORT ANSWER — 10 x 3 = 30 Marks

13. Define vagus nerve stimulation and Electroconvulsive therapy.
14. Nocturnal seizures.
15. Disorders of body schema.
16. Continuous positive airway pressure.
17. Hypopnea.
18. Name some therapeutic AIDS for neurological disorders.
19. Autosomal dominant disease.
20. Benign epileptiform transients of sleep.
21. Wilson’s disease.
22. Motor units.

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Sciences Technology Degree Examination – 27-Nov-2024

Time: Three Hours Max. Marks: 100

SYSTEMIC DISEASES (RS-3)

Q.P. CODE: 3313

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) 2 x 10 = 20 Marks

1. Write in detail on Epileptic syndromes
2. Write in detail in metabolic and Toxic myopathies
   OR
   Write in detail on Autosomal diseases

SHORT ESSAYS (Question No 5 & 10 choice) 10 x 5 = 50 Marks

3. Macrocephaly
4. Polymyositis
5. Autosomal dominant disease
   OR
   Regulation of BP
6. Vertigo
7. Congenital muscular disorders
8. Alzheimer's disease
9. Headache
10. Sleep disorders
    OR
    Japanese Encephalitis
11. Mitochondrial disease
12. Myotonia

SHORT ANSWER 10 x 3 = 30 Marks

13. Pathophysiology for Myasthenia Gravis
14. Vitamin B12 deficiency
15. Treatment for CIDP
16. Insomnia
17. Bed sores
18. Treatment for Dermatomyositis
19. Dysarthria
20. Cramps
21. Investigations for AIDP
22. Treatment for meningitis

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Sciences Technology Degree Examination – 25-Nov-2024

Time: Three Hours Max. Marks: 100

ADVANCED TECHNIQUE- II (RS-3)

Q.P. CODE: 3312

Your answers should be specific to the questions asked
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) 2 x 10 = 20 Marks

1. Write in detail on Duchenne muscular dystrophy.
2. Explain in detail on stages of sleep.
   OR
   Explain in detail about Paediatric Polysomnography.

SHORT ESSAYS (Question No 5 & 10 choice) 10 x 5 = 50 Marks

3. Recording techniques in EMG.
4. Paediatric polysomnography.
   Or
   Parasomnias
5. Fasciculations.
   OR
   Types of Needles in EMG.
6. Myopathic patterns.
7. Computer application in EMG.
8. Insertional activity.
9. Sudden infant death syndrome.
10. Sympathetic skin response test.
    OR
    Patient safety in EMG.
11. Gastroesophageal reflex.
12. Spatial disorder.

SHORT ANSWER 10 x 3 = 30 Marks

13. Define vagus nerve stimulation and Electroconvulsive therapy.
14. Nocturnal seizures.
15. Disorders of body schema.
16. Continuous positive airway pressure.
17. Hypopnea.
18. Name some therapeutic AIDS for neurological disorders.
19. Autosomal dominant disease.
20. Benign epileptiform transients of sleep.
21. Wilson's disease.
22. Motor units.

Correction 25.11.2024 Morning

Q.P Code: 3312

Replace the question No.4 as

4. Parasomnias

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Sciences Technology Degree Examination – 27-Nov-2024

Time: Three Hours Max. Marks: 100

SYSTEMIC DISEASES (RS-3)

Q.P. CODE: 3313

Your answers should be specific to the questions asked.
Draw neat labeled diagrams wherever necessary

LONG ESSAYS (Second Question Choice) 2 x 10 = 20 Marks

1. Write in detail on Epileptic syndromes
2. Write in detail in metabolic and Toxic myopathies
   OR
   Write in detail on Autosomal diseases

SHORT ESSAYS (Question No 5 & 10 choice) 10 x 5 = 50 Marks

3. Macrocephaly
4. Polymyositis
5. Autosomal dominant disease
   OR
   Regulation of BP
6. Vertigo
7. Congenital muscular disorders
8. Alzheimer's disease
9. Headache
10. Sleep disorders
    OR
    Japanese Encephalitis
11. Mitochondrial disease
12. Myotonia

SHORT ANSWER 10 x 3 = 30 Marks

13. Pathophysiology for Myasthenia Gravis
14. Vitamin B12 deficiency
15. Treatment for CIDP
16. Insomnia
17. Bed sores
18. Treatment for Dermatomyositis
19. Dysarthria
20. Cramps
21. Investigations for AIDP
22. Treatment for meningitis