Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Science Technology Degree Examination – 06-May-2026

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. Write in detail on the instrumentation in evoked potential
2. Write in detail on cervical spondylosis
3. What do you understand by SSEP? Describe the test protocol and its normative data

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

4. Principles of Averaging
5. Common mode rejection
6. Special techniques in MEP
7. Brainstem Auditory Evoked Potentials
8. Median SSEP
9. Patient preparation and clinical correlation in VEP
10. Diabetic neuropathy
11. Stroke

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

12. Internal noise
13. Treatment for movement disorders
14. Draw Lumbar plexus
15 Treatment for spinal cord injury
16. Frequency response
17. Management for Dementia
18. Measurements for CMCT
19. Name few clinical conditions in MEP
20. Pediatric VEP
21. Causes for spinal cord compression
22. Non Limb Nerves
23. Tarsal Tunnel syndrome

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Science Technology Degree Examination – 08-May-2026

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. Describe in detail about sympathetic skin response.
2. What is EMG list the components of EMG. Describe the normal and abnormal wave form in EMG.
3. Describe corneal reflex and put a diagram of the reflex are for corneal reflex. Put a note on blink reflex.

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

4. Fasiculation and positive sharp waves.
5. Define and put 2 uses of a) Electrode b) Amplifier filters c) Stimulators
6. Patient preparation and patient safety in EMG.
7. Bell's palsy.
8. Neurogenic patterns.
9. Recording techniques in EMG.
10. Anatomy of the 5^{th} cranial nerve.
11. Computer application in EMG.

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

12. Jaw jerk.
13. Uses of EMG in cerebello pontine angle disorders.
14. Types of needle used in EMG.
15 Insertion activity.
16. **Define Motor unit and its types**
17. Spontaneous activity.
18. Briefly list use of EMG
19. Define neuromuscular junction.
20. Terminal branches of Trigeminal nerve.
21. Facial nerve.
22. Glosspharyngeal nerve.
23. Mention four Brainstem disorders.

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Sciences Technology Degree Examination – 06-May-2026

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. Write in detail on patient preparation, materials required, procedures, factors affecting and clinical conditions in Brainstem Auditory Evoked potentials.
2. Essay on L5 –S1 radiculopathy.
   OR
   Explain in detail about AIDP (Acute Inflammatory Demyelinating Polyneuropathy).

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

3. Blink reflex.
4. Special techniques median nerve.
5. Conduction block.
   OR
   Sacral Plexus.
6. Spinal cord injury.
7. Tibial SSEP.
8. Autonomic Neuropathy.
9. Lumbar disc prolapse.
10. Visual Evoked potentials.
    OR
    Neuropathy associated with AIDS.
11. **Psychogenic weakness**
12. Principles of averaging.

SHORT ANSWER **10 x 3 = 30 Marks**

13. Signal to noise ratio.
14. Waveform generators in Median SSEP.
15. Non-limb nerves.
16. Causes for Mononeuropathy.
17. Draw lumbar plexus.
18. Meralgia paresthetica.
19. Management for motor neuron disease.
20. Lateral femoral cutaneous nerve.
21. Draw Sural nerve conduction study.
22. Definition for evoked potentials.

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CORRECTIONS

Subject: ADVANCED TECHNIQUE -1

QP Code: 3311

Q. No	QUESTION Appeared As	QUESTION CORRECTED As	REASON FOR CORRECTIONS
11	Median SSEP	Psychogenic weakness	Repeat with question 14

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Sciences Technology Degree Examination – 08-May 2026

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. Describe in detail about Polysomnography (PSG)

2. Describe in detail about A) Stages of sleep B) Explain in detail about Sleep disorders.
   OR
   Explain in detail about Muscular dystrophies.

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

3. Autosomal dominant disease
4. Aphasia and its types
5. Explain in detail about Neurogenic and Myogenic pattern
   OR
   Macro EMG.
6. Paediatric PSG
7. Surface EMG & Quantitative EMG
8. Amyotrophic Lateral Sclerosis (ALS)
9. EMG and its types of Needles
10. Jitter and Blocking
    OR
    Computer application of EMG
11. REM sleep disorder and arousal disorder
12. Patient safety in EMG

SHORT ANSWER **10 x 3 = 30 Marks**

13. Define Myopathy
14. Polymyocitis
15. Insertional activity
16. Define Obstructive Sleep Apnea (OSA)
17. Anton's syndrome
18. Define Biocallibrations
19. Define SSR & R-R interval
20. **Name few spatial disorders**
21. Paediatric Montages
22. Wilson's disease

Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Science Technology Degree Examination – 11-May-2026

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. Etiopathogenesis, classification and management of CVA (Hemorrhagic)
2. Pathophysiology, clinical features and management of myasthenia gravis. Add a note on its complications
3. Rabis-etiology, clinical features and treatment

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

4. Inflammatory myopathies
5. Clinical features and treatment of myotonic dystrophy
6. Status epilepticus spinocerebellar ataxia
7. Management of tubercular meningitis
8. Clinical features and treatment of myotonic dystrophy
9. Arterial circle of Willis
10. Management of CIDP
11. Management of vertigo

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

12. Three causes of mitochondrial myopathies
13. Clinical features of tetanus
14. Common cause of 7^{th} nerve palsy (LMN type)
15 Name stages of sleep
16. Three causes of vascular diseases
17. Signs of meningeal irritation
18. Neurological complication of leprosy
19. Blood supply of spinal cord
20. Management of chronic headache
21. **Add a note on clinical features of microcephaly**
22. Name three antiplatelets
23. **Classify muscular dystrophy**

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Rajiv Gandhi University of Health Sciences, Karnataka

III Year B.Sc. Neuro Sciences Technology Degree Examination – 11-May-2026

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. Neuromuscular junction physiology and discuss disorders of neuromuscular transmission in detail
2. Spinal cord trauma, clinical features and management
   OR
   Describe developmental diseases – microcephaly and macrocephaly

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

3. Trigeminal neuralgia
4. Central multiple sclerosis
5. Rabies
   OR
   Myasthenic syndrome
6. Traumatic head injury
7. Ischaemic CVA
8. Muscular dystrophies – classification
9. **Alzheimer's Disease**
10. Mitochondrial disease
    OR
    Metabolic and toxic myopathies
11. Glasgow Coma Scale
12. Japanese encephalitis

SHORT ANSWER **10 x 3 = 30 Marks**

13. Paraplegia
14. Frontal lobe lesions
15. Quadriplegia
16. Aphasia and its types
17. Loss of consciousness
18. Phonation
19. Define hydrocephalus and its types
20. Sub arachnoid haemorrhage
21. Fungal meningitis
22. Define epilepsy and its types

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