Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – 08-May-2025

Time: Three Hours **Max. Marks: 80**

Basic of Nerve Conduction Study (NCS)

Q.P. CODE: 2842

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 Facial nerve conduction study
2. Write in detail on Peroneal Nerve conduction study
3. **Write in detail on Repetitive Nerve stimulation**

   Or

   Brachial plexus injuries

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

4. Sural Nerve conduction
5. Traumatic Demyelination
6. Wallerian Degeneration
7. Musculocutaneous Nerve
8. Recording techniques in NCS
9. Nerve conduction velocity
10. Computer application in NCS
11. CMAP

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

12. F Wave
13. Normal values of H reflex
14. Conduction velocity
15. Anatomy if Tibial nerve
16. Normal values of Radial nerve
17. Draw SNAP
18. Muscle supply of Medial nerve
19. Management of motor neuron disease
20. Depolarization
21. Types of Electrodes used in NCS
22. Draw Action Potential
23. Muscle supply for Ulnar nerve

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Sciences Technology Degree Examination – 08-May-2025

Time: Three Hours **Max. Marks: 100 Marks**

BASICS OF NERVE CONDUCTION STUDY (NCS) – (RS-3)

Q.P. CODE: 3308

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. Essay on brachial plexus and its injuries with diagram.
2. Anatomy, course and function of 5^{th} cranial nerve, add a note on its clinical conditions.
   OR
   Essay on AIDP and add a note on GBS.

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

3. **CMAP.**
   Or
   WRITE IN DETAIL ON H-reflex
4. Median nerve conduction studies.
5. Factors affecting NCS.
   OR
   Resting membrane potential.
6. Axon reflex.
7. Pronator Teres syndrome.
8. Saturday night palsy.
9. Trigeminal Neuralgia.
10. Radial nerve**.**
    OR
    Sciatic Neuropathy.
11. Myasthenia Gravis.
12. Mononeuropathy.

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

13. Tinel's sign.
14. Superficial radial cutaneous nerve conduction.
15. Latency, amplitude and duration.
16. Management of CTS.
17. Bell's Phenomenon.
18. **Temporal dispersion.**
    Or
    Neuropraxia
19. Muscle supply of axillary nerve.
20. Foot drop.
21. Maintenance of electrodes.
22. Tarsal tunnel syndrome.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Sciences Technology Degree Examination – 13-May-2025

Time: Three Hours **Max. Marks: 100 Marks**

Applied Anatomy and Physiology Related to Neuroscience Technology (RS-3)

Q.P. CODE: 3309

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 the classification of Nervous system
2. Essay on cerebrum and its areas.
   OR
   Write in detail on spinal cord injuries

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

3. Pyramidal tract
4. Basal Ganglia
5. Blood brain barrier
   OR
   Auditory pathway
6. Meninges of brain
7. Mid brain
8. Excitation of synaptic transmission
9. Frontal lobe
10. Classify Nervous system
    OR
    Four lobes of Brain
11. Visual pathway
12. Cerebellum

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

13. Name the components of Corpus callosum
14. Divisions of Autonomic nervous system
15. Circle of Willis
16. Lumbar puncture
17. Gullian Barre syndrome
18. Brown Sequard syndrome
19. Choroid plexus
20. Schematic diagram of Neuron
21. Blood brain barrier
22. Applied anatomy of pons

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – 15-May-2025

Time: Three Hours **Max. Marks: 80 Marks**

Pharmacology Related to Neuroscience Technology
Q.P. CODE: 2844

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. Classify antihypertensive drugs. Write in detail on mechanism of action, uses and adverse effects of ACE inhibitors.
2. Classify drugs used for epilepsy. Write in detail on mechanism of action, uses and adverse effects of phenytoin.
3. Classify anti coagulants. Write in detail on adverse effects, uses and contraindications of aspirin.

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

4. Hydrocortisone.
5. Carbamazepine.
6. Psychotropic drugs.
7. Diazepam.
8. Levodopa.
9. Diclofenac.
10. **Centrally acting sympatholytic drugs**
11. Sodium Valporate and phenytoin sodium

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

12. Mechanism of action of Acyclovir.
13. Mention some uses of Psychotropic drugs.
14. Uses of Dopamine agonists.
15 Intravenous route of drug administration.
16. Name three opioid analgesics.
17. Adverse effects of anti-hypertensive drugs.
18. Drugs used in Angina.
19. Treatment for peptic ulcer.
20. Mechanism of action of antifungal drugs.
21. Drugs used for Bronchial asthma.
22. Mood stabilizers.
23. Name few diuretic agents.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Sciences Technology Degree Examination – 15-May-2025

Time: Three Hours **Max. Marks: 100 Marks**

PHARMACOLOGY (RS-3)

Q.P. CODE: 3310

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 antiparkinsonian drugs. Discuss the mechanism of action, adverse effects of levodopa. Why is carbidopa combined with levodopa?
2. Classify antiepileptics. Discuss the mechanism of action, adverse effects and uses of sodium valproate.

   OR

   Classify penicillins. Discuss the mechanism of action, uses and adverse effects of Penicillin G.

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

3. Compare and contrast neostigmine and physostigmine.
4. Warfarin.
5. Diazepam.

   OR

   Uses of prednisolone.
6. List four oral antidiabetic drugs. Write a note on any one of them.
7. Miotics.
8. Dantrolene.
9. Name three drugs in the treatment of angina. Write the mechanism of action of any one of them.
10. Paracetamol.

    OR

    Plasma half-life.
11. Aminoglycosides.
12. Neurotransmitters of autonomic nervous system.

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

13. List three drugs used in HIV infection.
14. Name three general anaesthetics.
15. Name three drugs used in leprosy.
16. List three drugs used in status epilepticus.
17. List three antiplatelet drugs.
18. List the different routes of drug administration.
19. List three adverse effects of Succinylcholine.
20. List three anti-inflammatory drugs.
21. List three antifungal drugs.
22. List three coagulants.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Sciences Technology Degree Examination – 23-May-2025

Time: Three Hours **Max. Marks: 100 Marks**

BASIC ELECTROENCEPHALOGRAPHY (EEG) – (RS-3)

Q.P. CODE: 3307

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 Generalized Epilepsy.
2. Write in detail on the international 10-20 system.
   OR
   Write in detail on reporting in EEG.

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

3. Transient ischemic attack.
4. Ambulatory EEG and video EEG
5. Common mode rejection.
   OR
   Special electrodes in EEG.
6. Montages of its types.
7. Hypsarrhythmia and PLED's
8. EEG changes in sleep.
9. Benign Rolandic Epilepsy.
10. Ischemic stroke.
    OR
    Alzheimer's disease.
11. Glass cow coma scale.
12. Hydrocephalus.

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

13. Neurotransmitters in EEG.
14. Clinical features in Parkinson's disease.
15. Eye movement artifacts.
16. Triphasic sharp waves.
17. Special electrodes in EEG.
18. Draw a neat diagram of bipolar montage.
19. Signal to noise ratio.
20. Block diagram of EEG.
21. Ground artifacts.
22. Contraindication of Hyperventilation.

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Sciences Technology Degree Examination – 30-Oct-2025

Time: Three Hours **Max. Marks: 100**

BASICS OF NERVE CONDUCTION STUDY (NCS) – (RS-3)

Q.P. CODE: 3308

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 Ulnar nerve conduction study
2. Write in detail on facial nerve conduction study
   OR
   Computer application in nerve conduction studies

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

3. Action potential
4. Trigeminal nerve
5. Wallerian degeneration
   OR
   Radial nerve conduction
6. Axonal motor neuron disease
7. Musculocutaneous nerve
8. Superficial peroneal nerve
9. Compound muscle action potential
10. **Physical examination of Median nerve**
    OR
    Stimulation parameters in NCS
11. Late response
12. Physical examination of peroneal nerve

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

13. Draw a diagram of sensory nerve action potential
14. Ions exchange
15. Root value of sural nerve
16. Conditions for F-wave abnormality
17. Bells Palsy
18. Neurotmesis
19. Carpal tunnel syndrome
20. Traumatic demyelination
21. Types of electrodes used in NCS
22. **Draw brachial plexus**

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – 30-Oct-2025

Time: Three Hours **Max. Marks: 80 Marks**

Basic of Nerve Conduction Study (NCS)
Q.P. CODE: 2842

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 down in detail about the late responses in NCS
2. **a) Write in detail on Radial NCS & its clinical application**
   b) Discuss about the anatomy of facial nerve with a neat labelled diagram and add a note Bell's phenomena
3. **Write in detail on computer applications in NCS**

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

4. Musculocutaneous nerve
5. **Ulnar nerve conduction**
6. a) Hydrocephalous
   b) Trigeminal neuralgia
7. Carpal tunnel syndrome
8. F-Wave
9. Neuromuscular junction
10. Patient counselling for NCS
11. a) H reflex and its clinical implications
    b) Action potential

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

12. **Normal values of Median motor NCS**
13. SNAP
14. **a) Saturday night palsy**
    b) Electrode placement for peroneal nerve
15. Bell's phenomena
16. **Draw Tibial NCS**
17. CTS
18. **Foot drop**
19. a) End plate potential
    b) Bells Palsy
20. Electrode placement of sural nerve
21. Cubital tunnel syndrome
22. Upper trunk lesion
23. Axonal Neuropathy

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