Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – 29-Dec-2020

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

Basic Electroencephalography
Q.P. CODE: 2841

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. Essay on Artifacts and its types
2. Digital to analog converter
3. Essay on Digital Signal Processing and add a note on advantages of DSP and filters

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

4. Resistor
5. Advantages and disadvantages of EEG
6. Abnormal EEG rhythms
7. Electrical safety and safety rules
8. REM sleep
9. Capacitor and its type
10. Transistor and its type
11. Advantages and disadvantages of DSP

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

12. Patient preparation for EEG
13. Block diagram of EEG
14. Alpha rhythm in EEG.
15 Respiratory Event Related Arousals (RERA)
16. Central sleep apnea
17. Aneurysm.
18. Generalized tonic clonic seizures
19. Role of technologist
20. Sub arachnoid haemorrhage
21. Sampling rate
22. Potential difference
23. Paper speed

Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – 05-Jan-2021

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. Essay on Brainstem auditory evoked potentials, Auditory pathway
2. Detail on Median nerve, Add a note on CTS
3. Essay on brachial plexus, and its injuries with diagram.

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

4. F – Response
5. CMAP
6. Muscular dystrophy
7. H-Reflex
8. Action Potential
9. Structure and function of neuron
10. Functions of ANS
11. NMJ and its disorders

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

12. Ulnar nerve
13. Radial nerve
14. Upper trunk lesion
15 Single fiber EMG
16. Trigeminal nerve
17. Patient preparation for NCS
18. EMG electrodes
19. Demyelinating neuropathy
20. Patient preparation for BAER
21. CTS
22. MUAP
23. Ulnar deformities

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – 07-Jan-2021

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

Applied Anatomy and Physiology Related to Neuroscience Technology
Q.P. CODE: 2843

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 Superolateral surface of cerebral hemisphere.
2. Blood supply of spinal cord and its applied anatomy
3. Describe corpus collasum with its applied anatomy and functions.

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

4. Classify Nervous system.
5. Lumbar puncture
6. Mid brain
7. Floor of fourth ventricle
8. Internal capsule
9. Blood brain barrier
10. Visual pathway
11. Circle of Willis

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

12. Brown-Sequard syndrome
13. Name the touch and pain pathway.
14. Feature of cerebellar lesion
15 Function of Limbic system
16. Name the components of basal ganglion.
17. What is Broca's motor speech area?
18. Auditory pathway
19. Short note on synapsis
20. Choroid plexus
21. Archicerebellum
22. Crus cerebri
23. Inferior horn of lateral ventricle

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – 11-Jan-2021

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 Beta blockers. Write the therapeutic uses and adverse effects of propropnolol.
2. Enumerate drugs used in congestive cardiac failure. Write the therapeutic uses and adverse effects of angiotensin converting enzyme inhibitors.
3. Classify penicillins. Explain their mechanism of action. Indicate the uses and side effects of these drugs.

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

4. Two different IV fluids.
5. Diuretics
6. Statins
7. Cough suppressants
8. Aspirin – uses and contraindications
9. Therapeutic uses of Propronolol
10. Uses of corticosteroids
11. Morphine

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

12. Name two aminoglycosides and indicate the important side effects.
13. Uses of aspirin.
14. Mechanism of action and one use of Diazepam
15 Name two anti anginal drugs and indicate one side effect.
16. Mechanism of action and one use of Nifedipine.
17. How do you treat metabolic acidosis?
18. How does Morphine act and indicate one use.
19. What is Streptokinase? Where is it used?
20. Mention three important routes of drug excretion.
21. Mention three advantages of combining antimicrobial drugs.
22. Name three neuromuscular blocking drugs.
23. Bioavailability.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – 16-Jul-2021

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

Basic Electroencephalography
Q.P. CODE: 2841

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. Instrumentation of EEG (Sensitivity, HFF, LFF, Time constant, Paper speed and Calibration)
2. Explain video EEG & ambulatory EEG in detail
3. Classify artifacts. Explain how to identify and rectify each artifact

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

4. Photic stimulation
5. Alpha Rhythm
6. Long Term Monitoring
7. Parkinson's disease
8. Advantages and Disadvantages of EEG
9. Bipolar montage
10. Sleep stages and EEG in sleep
11. Dementia

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

12. Capacitor
13. Spinal tap
14. PLEDs
15 Snoring
16. Status epilepticus
17. Pediatric EEG
18. Electrical silence in EEG
19. Breach rhythm
20. Sleep spindles
21. Impedance
22. Asymmetrical background activity
23. Meningitis

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – 19-Jul-2021

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. Classify lumbar plexus and its clinical condition.
2. Anatomy, course and function of trigeminal nerve, add a note on its clinical conditions
3. Discuss in detail about Neuropathies associated with AIDS.

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

4. F – Response
5. Sciatic nerve and its electrophysiological study
6. Normal tibial SSEP
7. H-Reflex
8. Polyneuropathy
9. GBS
10. Obturator nerve
11. Femoral neuropathy

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

12. Axillary nerve function and its muscle supply
13. Maintenance of electrodes
14. Multi focal motor neuropathy
15 Tarsal tunnel syndrome
16. Axonal neuropathy
17. Patient preparation for NCS
18. Demyelinating neuropathy
19. CMAP
20. CTS
21. Maintenance of electrodes
22. Inching technique median
23. Conduction block

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – 22-Jul-2021

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

Applied Anatomy and Physiology Related to Neuroscience Technology
Q.P. CODE: 2843

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. Draw a neat labeled diagram of cross section of Spinal cord. Add a note on its applied aspects.
2. Describe the parts, Arterial supply, fibre components and applied aspects of Internal capsule.
3. Describe cavernous sinus. Add a note on its applied aspect.

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

4. Corpus collasum.
5. Subarachnoid cisterns.
6. Arterial supply of spinal cord.
7. Cerebrospinal fluid and its function.
8. Lumbar puncture.
9. Visual pathway.
10. Functions of thalamus.
11. Nam the structure forming Basal ganglion with its function.

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

12. List four functions of Hypothalamus.
13. Neuro transmitters
14. Kyphosis.
15 Diagram of multipolar neuron.
16. Cauda Equina.
17. Meninges.
18. Lateral sulcus.
19. Broca's area.
20. Name the folds of Dura matter.
21. Neural crest derivatives.
22. Basilar artery.
23. Trigeminal cave.

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Rajiv Gandhi University of Health Sciences, Karnataka

II Year B.Sc. Neuro Science Technology Degree Examination – 26-Jul-2021

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. Write the different routes administrations with example
2. Classify Opioids. Write mechanism of action, uses and adverse effects of Morphine
3. Classify Penicillins with two examples for each. Write the mechanism of action, uses and adverse effect of Amoxicillin

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

4. Warfarin
5. Sulfonylurea
6. Uses of corticosteroids
7. Pancuronium
8. Calcium channel blocker
9. Mention pharmacology of any two coagulants
10. Zidovudine
11. Nasal decongestants

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

12. Mention three drugs used in Anaphylactic shock
13. Mention three adverse effects of Heparin
14. Mention three drugs used in Fungal infection
15 Mention three uses of Thiazide diuretics
16. Mention two uses and one adverse effect of Pilocarpine
17. Give one example for Anti-tubercular, Antiviral and Anti-leprotic drug
18. Mention the class (group) these drugs belongs to – Adrenaline, Nifedipine and Alcohol
19. Mention three contraindications of Aspirin
20. Mention any three adverse drug reactions
21. Placebo
22. Plasma half life
23. Mention any three route of drug excretion with an example

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