

QP CODE: 103027

Reg. No:

**First Year B.Sc Neurotechnology Degree Regular/Supplementary
Examinations November 2025
Basic Neurophysiology & Neurotechnology Instrumentation
(2023 Scheme)**

Time: 3 Hours

Total Marks: 100

- Answer all questions to the point neatly and legibly • Do not leave any blank pages between answers • Indicate the question number correctly for the answer in the margin space
- Answer all parts of a single question together • Leave sufficient space between answers
- Draw table/diagrams/flow charts wherever necessary

Long Essay

(2x10=20)

1. Describe the generation of action potential in a myelinated nerve fiber
2. What are the components of EEG Equipment. Write briefly on each of them (5+5)

Short Essay

(5x8=40)

3. Draw a section of eyeball and mark the parts. What is Electroretinogram
4. Explain corticospinal tract with the help of a neat diagram
5. Describe EEG Changes occurring in the different stages of sleep
6. What is an EKG. How does it differ from EEG
7. Draw and mark the parts of olfactory receptor

Short Notes

(4x6=24)

8. Write briefly on Glycolysis
9. What is a muscle stretch reflex. Draw and label
10. What is Time Constant. Explain with a diagram
11. Write briefly on different types of EMG Needle

Answer Briefly

(2x3=6)

12. What are the advantages of Digital EEG over Analogue
13. Describe safety principles that should be observed in Electrophysiology Lab

Fill in the blanks

(10x1=10)

14. End product of Anaerobic Glycolysis is -----
15. Common Mode Rejection means-----
16. Example of electrical dipole in human body is -----
17. The three types of EMG Electrodes are -----, ----- and -----
18. Pulse oximeter is used for knowing -----
19. Nebulizer is an equipment used for -----
20. Noise in electrophysiology is -----
21. Auditory function is assessed by -----
22. The function of Notch filter is -----
23. In Brain Death EEG Recording should be done at ----- sensitivity
