

PAPER CODE: AHS17010

KALOJI NARAYANA RAO UNIVERSITY OF HEALTH SCIENCES

TELANGANA, WARANGAL – 506 002

B.Sc. (ALLIED HEALTH SCIENCES), SECOND YEAR DEGREE EXAMINATIONS: MAY, 2025

NEURO SCIENCE TECHNOLOGY

PAPER-I

ELECTRONICS & INSTRUMENTATION

Time: 3 Hours

Max Marks: 80

Note: Answer all questions

Draw diagrams whenever necessary with Black Ball point pen /HB pencil /any dark

Color pencil.

Write an essay on any TWO of the following questions:

2 X 10 = 20

1. Draw and explain circuit diagram of RC coupled amplifier.
2. Explain the working of EMG system with diagram.
3. Discuss significance of calibration of medical equipment.

Write a short note on any FIVE of the following:

5 X 6 = 30

4. Noise-types and technique for noise removal.
5. Block diagram of EEG.
6. Explain about bioelectric potential.
7. Sketch the circuit diagram of filter and band pass filter and explain.
8. Explain the concept of grounding.
9. RLC circuit.

Write briefly on the following:

10 X 3 = 30

10. Bandwidth definition.
11. Sampling theorem.
12. State the color coding of $2.2k\Omega$ and $10k\Omega$ resistor.
13. What is quality factor?
14. What is Bio electricity?
15. Explain about permanent magnet moving coil (PMMC).
16. Classify equipment based on electric safety.
17. What is macroshock and microshock?
18. Write short notes on capacitance and inductance.
19. Draw the block diagram of NCV equipment.
