

**KALOJI NARAYANA RAO UNIVERSITY OF HEALTH SCIENCES
TELANGANA, WARANGAL – 506 002**

**B.Sc. (Allied Health Sciences), SECOND YEAR DEGREE SUPPLEMENTARY EXAMINATIONS:
OCTOBER, 2025**

**CRITICAL CARE TECHNOLOGY
PAPER III
ICU MONITORING (BASIC)
BIOMEDICAL ENGINEERING AND BASIC PHYSICS**

Time: 3 Hours

Max Marks: 80

Note: Draw diagrams whenever necessary with Black Ball point pen /HB pencil /any dark
Color pencil.

Write essay on any TWO of the following questions:

2 X 10 = 20

1. Define Cardiac output. Mention factors affecting cardiac output. Describe methods of cardiac output monitoring.
2. Define Hyperthermia. Mention in detail about temperature monitoring in ICU.
3. What is Endotracheal intubation? Mention indications and procedure of intubation.

Write a short note on any FIVE of the following:

5 X 6 = 30

4. Describe a) Resistance b) Capacitance.
5. Pulseoxymetry.
6. BIS monitoring and its importance.
7. Blood transfusion – indications and complications.
8. How do you collect sample for ABG.
9. Tracheostomy.

Write briefly on the following:

10 X 3 = 30

10. 12 lead ECG position of leads.
11. Classification of Medical equipment.
12. Explain normal chest X-ray.
13. Management of Hyperkalaemia.
14. ET tube – cuff pressure.
15. Positive End Expiratory Pressure (PEEP).
16. Monitoring of urine output.
17. Kirchhoff's law electrical circuits.
18. Bradycardia.
19. Zeroing, calibration of pressure transducers.
