

Third Year B.Sc MLT Degree Regular/Supplementary Examinations
May 2022
Electronics, Computer Science & Biomedical Instrumentation Technology
(2010 & 2015 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 diagrams wherever necessary*

Essay**(2x10=20)**

1. What are amplifiers. Why they are need in biomedical instrumentation. With the help of a diagram explain the principle of operation of a common emitter amplifier. (2+3+5)
2. What are the hardware and software components of a modern computer. Compare the role of RAM and ROM in a computer. (5+5)

Short notes**(10x5=50)**

3. Full wave bridge rectifier
4. Common base transistor amplifier
5. LCD Display
6. Differential amplifier
7. Virtual LAN
8. Digital CRO
9. Pulse plethysmography
10. SPECT
11. Heart lung machine
12. Surgical diathermy

Answer briefly**(10x3=30)**

13. Zener diode as voltage regulator
14. Detectors in CT
15. Ventricular fibrillation
16. Nebulizer
17. Need for PEEP in ventilator
18. Laser surgery
19. Application of Evoked potential recordings
20. Advantages of MRI over other imaging modalities
21. Preventive maintenance
22. LVDT pressure transducer