

**Third Year B.Sc MLT Degree Regular/Supplementary Examinations  
May 2023  
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. (a) Explain PNP and NPN transistors  
(b) Amplifiers- Common emitter, Common base and common collector
2. Maintenance procedures of equipment based on medical and laboratory equipment

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

3. Rectifiers
4. Incubators
5. Refrigerators
6. Pressure transducers
7. Multi parameter monitor
8. Audiometers
9. Ventilator
10. Spirometer
11. CT scan
12. Gama camera

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

13. Input and output devices
14. GM counter
15. Calorimeter
16. Multimeter
17. LED display
18. Fingure tip pulse oximeter
19. Walk in cooler
20. EMG machine
21. Sigmoidoscope.
22. Differential amplifier