

**Third Year B.Sc MLT Degree Examinations, October 2014**

**ELECTRONICS, COMPUTER SCIENCE & BIOMEDICAL INSTRUMENTATION  
TECHNOLOGY**

**Time: 3 Hours**

**Total Marks: 100**

- Answer all Questions.
- Draw Diagrams wherever necessary.

**Essay**

**(2x10=20)**

1. Explain about PNP and NPN transistors (5+5=10)
2. Discuss the working principle and maintenance of the laboratory equipments - deep freezer and colorimeter. (5+5=10)

**Short notes**

**(10x5=50)**

3. Blood gas analyzer
4. SPECT
5. Echo encephalograph
6. Digital subtraction angiography
7. Reflection oximetry
8. Heart lung machine
9. Hearing aid
10. Gamma camera
11. Haemodialysis
12. Centrifuge

**Answer briefly**

**(10x3=30)**

13. LCD display
14. Bridge rectifier
15. LAN
16. Multi meter
17. Nebulizer
18. Radio activity
19. Bekesey audiometer
20. Pulse height analyzer
21. Dialyzer
22. Heating mantle