

First Year B.Sc MLT Degree Regular/Supplementary Examinations
January 2023
Biochemistry
(2016 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 table/diagrams/flow charts wherever necessary*

Essay**(2x10=20)**

1. Describe the levels of protein organization. Add a note on the analysis of N-terminal amino acids. (6+4)
2. Enumerate the different types of RNA. Describe their structure and function. (2+6+2)

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

3. Mucopolysaccharides.
4. Structure of bio membranes.
5. Biological hazards in the laboratory.
6. Phospholipids – structure and functions.
7. How many moles of sodium(Na) are required to prepare 4.5litres of 1.5M sodium solution.
8. Primary and secondary standard chemicals.
9. Benedict's test.
10. Active transport mechanism.
11. Watson-Crick model of DNA.
12. Essential fatty acids.

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

13. Define gravimetry. Write the principle of electronic balance.
14. Define normality. write the procedure for preparing 100ml of 3N HCL.
15. Heparin.
16. Give reason for adding sodium fluoride-potassium oxalate to the sample for estimation of blood glucose.
17. Micelle.
18. Name the aromatic amino acids. Write any one colour reaction for their detection.
19. Isoelectric pH.
20. Sanger's reaction.
21. HDL-Cholesterol.
22. Nephelometry.
