

**Second Year B.Sc MLT Degree Regular/Supplementary Examinations  
May 2022**

**Biochemistry - II**

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. Discuss in detail the sampling, storage and estimation of lipid profile parameters. (2+2+6)
2. Discuss the biochemical role of Vitamin D and its estimation. Add a note on the deficiency. (3+4+3)

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

3. Enumerate the salient differences between substrate level phosphorylation and oxidative phosphorylation. Give two examples for substrate level phosphorylation.
4. Urea cycle
5. Gout
6. Glucose-alanine cycle
7. Reducing sugars in urine
8. Enumerate the ketone bodies. Describe their estimation in blood and urine
9. Test for protein in urine
10. Beta oxidation of palmitic acid
11. Transamination
12. Synthesis of creatinine and describe the method of estimation

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

13. Define hypoglycemia. List two conditions resulting in hypoglycemia
14. List three differences between Marasmus and Kwashiorkor
15. How is specific gravity of urine measured. What is the reference range
16. Define BMR. What are the factors affecting BMR
17. Ehrlich's Test
18. Enumerate the tests done for detection of phenyl ketonuria
19. Biochemical role of Vitamin K
20. Name two sphingolipidoses and their salient features
21. Foam test
22. Orotic aciduria