

**QP Code: 401012**

**Reg. No:.....**

**Final Year B.Sc MLT Degree Supplementary Examinations  
September 2024**

**Biochemistry - IV**

**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. What is the reference range of serum calcium. Discuss any one method of estimation of serum calcium in laboratory. Add a note on hypocalcemia and hypercalcemia.
2. What are kidney function tests. Discuss the significance and procedure of clearance tests.

**Short notes**

**(10x5=50)**

3. Fractional test meal test
4. pH meter
5. Dry chemistry analyzer
6. Quality assurance programs in lab
7. Hypothyroidism
8. Genetic code
9. Polymerase Chain reaction
10. Hemolytic diseases of newborn
11. Malabsorption syndromes
12. Buffers present in our body

**Answer briefly**

**(10x3=30)**

13. Bilirubin estimation
14. Urinary VMA
15. Iron studies in anemia diagnosis
16. Uses of blotting techniques
17. Flame photometry
18. Sweat tests
19. Urinary steroids
20. DNA repair
21. Screening tests for common drugs
22. Gene therapy

\*\*\*\*\*