QP Code: 401012 Reg. No:.... Final Year B.Sc MLT Degree Supplementary Examinations January 2022 **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. Discuss the quality control programmes in a clinical laboratory 2. Enumerate the liver function tests and explain their clinical significance **Short notes** (10x5=50)3. Estimation and Clinical significance of serum Phosphorus 4. What are the renal mechanisms for regulating acid-base balance 5. Dry chemistry analyzer 6. Replication 7. Establishment of reference interval 8. Tests for adrenal dysfunction 9. Clearance tests 10. Ion selective electrodes 11. Discuss the principles of laboratory automation 12. Tests for endocrine pancreatic function **Answer briefly** (10x3=30)

- 13. Specific gravity of urine
- 14. Vectors used in recombinant DNA technology
- 15. Restriction endonucleases
- 16. Tests for iron deficiency anemia
- 17. Osmolar gap
- 18. Gene library
- 19. Southern blotting
- 20. Metabolic acidosis
- 21. Tests for female infertility
- 22. Post translational modification
