

QP CODE: 301012

Reg. No: .....

**Third Year B.Sc MLT Degree Regular/Supplementary Examinations  
April 2024  
Biochemistry – III**

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. Explain IUBMB classification of enzymes giving examples for each
2. Outline the pathway of heme synthesis. Add a note on its regulation. (7+3)

**Short notes**

**(10x5=50)**

3. Draw normal electrophoretic pattern of serum proteins. Discuss two abnormal pattern
4. Describe principle and applications of Enzyme Linked Immunosorbent assay
5. Acute intermittent porphyria
6. Paper chromatography
7. Enzyme profile in myocardial infarction
8. Analysis of Urinary calculi
9. Name various theories explaining the mechanism of enzyme action. Discuss anyone of them.
10. Congenital hyperbilirubenemias
11. Principle and method of estimation of Alanine aminotransferase
12. Functions of hemoglobin

**Answer briefly**

**(10x3=30)**

13. Salient features of co-enzymes
14. Glucose-6-phosphate Dehydrogenase
15. Urea clearance test
16. Discuss blood and urinary findings in hemolytic jaundice
17. Suicide inhibition of enzyme
18. Effect of temperature on enzyme activity
19. Active site of enzyme
20. Hemoglobin S disease
21. Kinetic assay for determining enzyme activity
22. Carboxyhemoglobin

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