

QP Code: 313020

Reg. No.....

**Third Year B.Sc. Medical Biochemistry Supplementary Examinations
September 2025
Metabolism III**

(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

(2x15=30)

1. What is gene therapy. What are the applications of gene therapy. Add a note on transgenics
2. Explain DNA repair mechanisms with suitable examples

Short Essay

(2x10=20)

3. Operon concept of gene regulation
4. Salient features of genetic code

Short Answers

(6x5=30)

5. Gout
6. Structure of pyrimidines
7. Meselson-Stahl experiment
8. DNA Polymerase
9. Post-transcriptional modifications
10. tRNA

Comment on

(10x2=20)

11. Mitochondrial DNA
12. Gene
13. RNA primer
14. Semiconservative replication
15. Goldberg-Hogness Box
16. Plasmids
17. Western blot
18. Denaturation in PCR
19. Clinical applications of Restriction Fragment Length Polymorphism
20. Silent mutation
