

QP Code: 313020

Reg. No.....

**Third Year B.Sc. Medical Biochemistry Regular/Supplementary  
Examinations February 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. Describe in detail the biosynthesis of purine nucleotides. Add a note on purine synthesis inhibitors.
2. Explain in detail the process of replication of DNA.

**Short Essay**

**(2x10=20)**

3. Structure and formation of chromosome.
4. Regulation of gene expression in eukaryotes.

**Short Answers**

**(6x5=30)**

5. Inhibitors of RNA synthesis.
6. Leish- Nyhan Syndrome
7. Watson- Crick model of DNA
8. Post-translational modifications
9. Protein targeting
10. Applications of recombinant DNA Technology

**Comment on**

**(10x2=20)**

11. Base excision repair
12. Histones
13. Chargaff's rule
14. TATA Box
15. Micro RNA
16. Wobbling phenomenon
17. Mutagenesis
18. Bacteriophages
19. Southern blot
20. DNA fingerprinting

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