

QP Code: 313020

Reg. No.....

**Third Year B.Sc. Medical Biochemistry Regular/Supplementary
Examinations January 2026
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 process and tools required in Recombinant DNA technology. Add a note on its applications.
2. Give a detailed account of the transcription process and its regulation. Add a note on its inhibitors

Short Essay

(2x10=20)

3. Explain various DNA repair mechanisms and associated disorders
4. Give the sources of carbon and nitrogen atoms of purine and pyrimidine rings. Describe in detail degradation of purine nucleotides. Add a note on Gout.

Short Answers

(6x5=30)

5. Gene therapy and its applications
6. Post translational modifications
7. Organization of chromatin in nucleus
8. Describe point mutation and frameshift mutation
9. Restriction fragment length polymorphism
10. Regulation of gene expression in eukaryotes

Comment on

(10x2=20)

11. Replication bubble
12. Hypouricemia
13. Purine synthesis inhibitors
14. Telomerase
15. Messenger RNA
16. Base pairing rule
17. Wobbling phenomenon
18. Antisense therapy
19. Site directed mutagenesis
20. Gene switching

CORRECTION / NO-CORRECTION FILE
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QPCODE: 313020

Dated: 16-01-2026

Question No. 18

Replaced with "PCR"

Corrections/Modifications/Replacement of Questions if any shall be made available to all students. Take the print out of the Correction File in such cases and distribute to all students.

(Sd/-)

CONTROLLER OF EXAMINATIONS