

QP Code: 313020

Reg. No.....

**Third Year B.Sc. Medical Biochemistry Supplementary Examinations  
March (November), 2020**

**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. Discuss in detail the translation process. Add a note on post-translational modifications.
2. Describe the steps and enzymes involved in purine catabolism. Add a note on hyperuricemia.

**Short Essay**

**(2x10=20)**

3. Describe the types and effects of mutation.
4. Discuss DNA repair mechanisms. Name five diseases associated with defective DNA repair mechanisms.

**Short Answers**

**(6x5=30)**

5. RNA polymerase
6. Synthesis of pyrimidines
7. Genetic code
8. Western blot technique
9. Replication fork
10. DNA polymerase

**Comment on**

**(10x2=20)**

11. Inhibitors of transcription
12. Lac operon
13. Protein targeting
14. Nucleosomes
15. Mitochondrial DNA
16. Topoisomerases
17. Gene therapy
18. Adenosine deaminase deficiency
19. Splicing
20. Okasaki fragments

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