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Name.....

Reg. No.....

**FIFTH SEMESTER (CBCSS—UG) DEGREE EXAMINATION
NOVEMBER 2022**

Biotechnology

BTY 5B 07—MOLECULAR BIOLOGY

(2019 Admission onwards)

Time : Two Hours

Maximum : 60 Marks

Section A (Short Answers)

*Answer any ten questions.
Each question carries 2 marks.*

1. What is Pribnow box ?
2. What are the Functions of rRNA
3. Write the properties of genetic code
4. What is inducible operon ?
5. What are the classes of transposable elements ?
6. Write short note on non-histone proteins present in DNA ?
7. What is heterochromatin ?
8. What is the importance of DNA clamp ?
9. Write short note on different types of regulatory elements of gene.
10. Comment on bidirectional replication ?
11. What are constitutive genes ?
12. Write a note on polycistronic mRNA ?

Section B (Paragraph)

*Answer any six questions.
Each question carries 5 marks.*

13. Write a note on semi conservative model of DNA replication ?
14. Discuss about the beads on a string model of chromatin ?

(10 × 2 = 20 marks)

Turn over

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15. What are the difference between SINE and LINE ?
16. What is DNA repair ? Explain the types of excision repair mechanism.
17. Explain initiation of prokaryotic transcription ?
18. Write a note on RNAi ?
19. Write a note on structure of mRNA ?

Section C (Essay Type)

(6 × 5 = 30)

Answer any **one** question.

It carries 10 marks.

20. Explain experiments that helped to prove DNA as genetic material with the help of diagram.
21. Explain prokaryotic and eukaryotic gene structure ?

(1 × 10 = 10)