

IV. MATCH THE FOLLOWING**(4 X1 = 4 MARKS)**

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|-----------------------|---|-------------------------|
| 15. Photoreactivation | - | Non sense codon |
| 16. UAG codon | - | repair system |
| 17. RNA polymerase | - | found in eukaryotic DNA |
| 18. Tandem arrays | - | made up of 5 subunits |

V. ANSWER ANY SIX OF THE FOLLOWING, EACH IN ABOUT 50 WORDS.**(6 X3 = 18 MARKS)**

19. What are IS elements?
20. What is RNA polymerase?
21. Mention the promoter site in Prokaryotes and Eukaryotes.
22. What is central dogma?
23. Distinguish between introns and exons.
24. What is genetic imprinting?
25. What are transposable elements?
26. Mention the type of ribosomes in prokaryotes and eukaryotes.
27. What is topoisomerase?

SECTION B**ANSWER ANY FOUR OF THE FOLLOWING, EACH IN ABOUT 200 WORDS.****(4 X 6 = 24 MARKS)**

28. Explain the types of mutation.
29. Describe the conservative mode of replication.
30. Briefly explain the post transcriptional modifications in eukaryotes.
31. Write notes on trp-operon.
32. Give a brief account of genetic code.
33. Explain the DNA repair mechanism.

SECTION C**ANSWER ANY TWO OF THE FOLLOWING, EACH IN ABOUT 1000 WORDS.****(2 X 20 = 40 MARKS)**

34. Explain the molecular structure of three classes of RNA.
35. How is gene expression regulated? Discuss in detail lac-operon model.
36. With illustrations, explain protein synthesis.
37. Explain the mechanism of transposition.
