

- NB : (1) **All** questions are **compulsory**.
(2) **Figures** to the **right** indicate full **marks**.
(3) **Draw** neat labelled **diagrams** wherever **necessary**.

1. Discuss the molecular details of DNA replication in eukaryotes. **12**
OR
Give an account of Holliday model of DNA recombination. **12**
2. Explain the mechanism of transcription of protein coding genes - in prokaryotes. **12**
OR
What are different classes of RNA. Add a note on the genes that code for them. **12**
3. Discuss the role of snRNA in spliceosome. Add a note on the types of snRNA. **12**
OR
Briefly describe : **12**
(a) Self splicing
(b) RNA localization
4. Give a detailed account of protein structure. **12**
OR
Describe the mechanism of translation of genetic message. **12**
5. Write a short notes on **any three** of the following: **12**
(a) Nucleosome
(b) Telomerase
(c) RNA polymerase
(d) Non coding RNAs
(e) Ribozyme
(f) Chaperons
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