Q.P. Code : 29069

[Time: 2½ Hours] **[Marks:60]**

Please check whether you have got the right question paper.

N.B:
1. **All** questions are **compulsory**.
2. **Draw** neat and labelled **diagrams** wherever necessary.
3. **Figures** to the **right** indicate **full** marks.

1. Discuss the mechanism of replication of DNA in prokaryotes. **12**

OR

1. Describe in brief **12**
- i) Structure of nucleosome
- ii) Holliday model

2. With the help of suitable diagram, explain the structure of tRNA. Add a note on mRNA. **12**

OR

2. Explain in brief - **12**
- i) Ribosomes
- ii) Transcription factors in eukaryotes

3. "Spliceosome plays an important role in pre-mRNA splicing". Comment. **12**

OR

3. Write notes on – **12**
- i) Capping
- ii) Polyadenylation

4. Describe the structure of a mature protein. **12**

OR

4. Discuss the following- **12**
- i) Properties of genetic code
- ii) Initiation of translation in prokaryotes

5. Write short notes on **any three** of the following- **12**
- a) Okazaki fragments
- b) Initiation of replication in eukaryotes
- c) Self splicing introns
- d) Termination of transcription
- e) Initiation of translation in eukaryotes
- f) α - helix
