Roll No. | | | | | | | | | | | | **Total No. of Pages : 02**

Total No. of Questions : 09

B.Sc. (BT) (2018 Batch) (Sem.–3)

MOLECULAR BIOLOGY

Subject Code : BSBT-303-18

M.Code : 76610

Date of Examination : 21-12-22

Time : 3 Hrs. **Max. Marks : 60**

INSTRUCTIONS TO CANDIDATES :

1. **SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.**
2. **SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.**
3. **SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.**

SECTION-A

1. Write briefly :

a. What are Histone proteins?

b. What are Introns and Exons?

c. Structure of DNA pol-I?

d. What are Okazaki fragments?

e. What is Mis-sense mutation?

f. What is a Promoter?

g. What is a Holo-enzyme?

h. What is the Rho factor?

i. What are Operons?

j. Name any two antibiotics which inhibit translation.

SECTION-B

2. Discuss the genome organization in Eukaryotes.

3. Discuss the proteins and enzymes involved in replication initiation of Prokaryotes.

4. Discuss the enzymes required for double strand DNA damage repair.

5. Discuss what is activation of amino acid and t-RNA charging.

6. What positive regulation in gene expression?

SECTION-C

7. Discuss in detail various types of physical rnutagens and their mechanism of action.

8. Describe the Translation process in eukacyotes with the help of diagram.

9. With the help of Lac operon model explain gene regulation in bacteria.

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.