

Roll No.

Total No. of Pages : 02

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B.Tech. (BT) (Sem.-4)
CELL & MOLECULAR BIOLOGY

Subject Code : BTBT-403-18

M.Code : 77588

Date of Examination : 07-07-22

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. Answer briefly :

- a) What is the role of Histone proteins?
- b) Define Enhancers and Silencers.
- c) What are Caspases?
- d) Define apoptosis.
- e) What is the role of RNA splicing?
- f) What is Degeneracy of Genetic Code?
- g) What is Transposition?
- h) List names of DNA replication enzymes.
- i) What is X chromosome inactivation?
- j) What is the role of t-RNA?

SECTION-B

2. Explain about the different forms of DNA? What are Chargaff's rules?
3. Discuss the various models of Recombination.
4. Write a note on Lac Operon and its regulation.
5. Write a note on Features of Genetic Code.
6. What is RNA interference? Discuss mechanism and significance.

SECTION-C

7. Elaborate on Mechanism of RNA processing and RNA editing.
8. Deliberate on Steps of translation in eukaryotes and different types of Post translational Modifications.
9. Write about steps in prokaryotic DNA replication and the enzymes involved.

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.