RAN-2503001304022001

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External Theory Biotechnology (NCF-NEP) (Sem. - IV)

Examination April - 2025

BT-MJ-402 : Basic of Molecular Biology

Time: 1 Hour] **[Total Marks: 25**

સૂચના : / Instructions

(1) **નીચે દર્શાવેલ ☛ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.**
Fill up strictly the details of ☛ signs on your answer book

Name of the Examination:

☛ **External Theory Biotechnology (NCF-NEP) (Sem. - IV)**

Name of the Subject :

☛ **BT-MJ-402 : Basic of Molecular Biology**

Subject Code No.: **2503001304022001**

Seat No.:

Student's Signature

Q. 1. **Short Question/One-Word Answer (Any 5 out of 6)** **05**

a. Function of prokaryotic DNA Polymerases
b. Why decreased gene density observed in eukaryotes?
c. Spliceosome
d. Molecular chaperons
e. Consensus sequences
f. Shine-Dalgarno Sequence

Q. 2. **Short Note/Brief Answer (Any 2 out of 3)** **10**

a. What is Nucleosome? Explain its components and organization.
b. Compare and contrast the initiation of transcription in prokaryotes and eukaryotes.
c. Discuss about End replication problem in detail.

Q. 3. **Short Note/Brief Answer (Any 2 out of 3)** **10**

a. Elaborate the mechanism of post transcriptional modification in eukaryotes.
b. Mention detailed mechanism of initiation of translation in prokaryotes and eukaryotes.
c. Give details of post translational modifications.

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