

RAN-2503000505058001
B.Sc. (Bio Science) NCF-NEP (Sem. - V) Examination March - 2026
Molecular Biology Theory (New) Minor - 2
Time: 1 Hours]
[Total Marks: 25
સૂચના : / Instructions

- (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the above details on your answer book
- (2) Draw neat and labelled diagrams wherever necessary.
- (3) Figures to the right indicate full marks of the question.

Seat No.:

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Student's Signature

Q. 1. Multiple choice questions. (Any Five)
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1. Which of the following is true about DNA polymerase?
 - a. It can synthesize DNA in the 5' to 3' direction
 - b. It can synthesize DNA in the 3' to 5' direction
 - c. It can synthesize mRNA in the 3' to 5' direction
 - d. It can synthesize mRNA in the 5' to 3' direction
2. DNA Chain initiation phase during replication is
 - a. Formation of stepping stone
 - b. Activation of deoxy ribonucleotide
 - c. Formation of Okazaki fragments
 - d. Formation of replication fork stage
3. Structural genes in bacteria code for:
 - a. Regulatory proteins only
 - b. Enzymes and functional proteins
 - c. Promoters and operators
 - d. Ribosomal RNA only
4. Which of the following is a characteristic of codon?
 - a. Universal
 - b. Triplet
 - c. None overlapping
 - d. All
5. A mutation that does not alter the amino acid sequence of a protein is called:
 - a. Missense mutation
 - b. Nonsense mutation
 - c. Silent mutation
 - d. Frameshift mutation

6. Which of the following is a method to induce mutations for isolation?
- UV radiation
 - Nitrous acid
 - X-rays
 - All of the above

Q. 2. Answer any two of the followings. 10

- Describe in brief flow of genetic information.
- Write a note on DNA polymerase.
- Explain in brief about t - RNA.

Q. 3. Explain in detail the methods of detection and isolation of mutants. 10

OR

Q. 3. Answer the following questions. 10

- What is genetic code? What are the different properties of genetic code?
 - Describe in brief about types of mutation.
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