



RAN-2403001301011111 / 2403000501011111

B.Sc. (Bio Technology) (NCF-NEP) (Sem. I) Examination November - 2025

BT-MJ-101 : Introduction to Biotechnology

Time: 1:30 Hours]

[Total Marks: 38

સૂચના : / Instructions (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book	Seat No.: <table border="1"> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table> Student's Signature						

Q.1. Short question (Any 8 out of 9) (8)

- According to the European Federation of Biotechnology (EFB), how is biotechnology defined?
- What is the primary aim of a biotechnologist?
- What is food biotechnology?
- What do you understand by Green Biotechnology?
- Define: Gene therapy.
- Mention one technique used in in-situ bioremediation.
- Expand the abbreviation EMB-NET.
- State the vision of STBI.
- What is the main focus of the PRABODH initiative?

Q.2. Short Note (Any 2 out of 3) (10)

- What are the historical origins of biotechnological processes, and how have they evolved over time?
- Write a detailed note on traditional biotechnology and modern biotechnology.
- Explain the three fundamental cores of biotechnological processes.

Q.3. Short note (Any 2 out of 3) (10)

- Discuss India's Innovation and Entrepreneurship Ecosystem.
- Write note on BSIS-NET?
- What is the BIRAC SEED Fund hosted by STBI, and how does it provide financial assistance to start-ups?

Q.4. Short note (Any 2 out of 3) (10)

- A scientist is interested to create a plant variety which is drought resistant. Which biotechnology technique can be used for the same? Write steps of the chosen technique.
- Discuss the use of recombinant DNA technology in the production of human insulin, human growth hormone and blood clotting factors?
- Describe the process of sewage treatment. What are the three main steps involved, and what is the purpose of each step?