

RAN-2503001302046004

B.Sc. Biotechnology (Sem. II) Examination April - 2026
BT-MDC-203 : Basics of Bioinformatics

Time: 2 Hours]
[Total Marks: 50
સૂચના : / Instructions

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

Seat No.:

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Student's Signature

Q. 1 Short question/One-word answer Any Ten:
(10)

- a) Define HTML.
- b) Write the basic structure of an HTML document.
- c) Which tag is used for creating a table row?
- d) What is a hyperlink?
- e) Name any two formatting tags in HTML.
- f) What is MS Word used for?
- g) Define spreadsheet.
- h) What is a slide in PowerPoint?
- i) Define global alignment.
- j) Define local alignment.
- k) What is Dot Matrix analysis?
- l) Expand CLUSTAL W.

Q. 2 Attempt Any Two of the following:
(10)

- a) Describe the structure and basic elements of HTML.
- b) Explain the process of creating, saving, and loading an HTML webpage.
- c) Discuss the procedure for creating hyperlinks and tables in HTML with suitable examples.

Q. 3 Attempt Any Two of the following:
(10)

- a) Explain the basic features and essential functions of MS Word.
- b) Describe the MS PowerPoint interface and explain its main components.
- c) Discuss the fundamental concepts and basic operations in MS Excel.

Q. 4 Attempt Any One of the following: (10)

- a) Describe the Heuristic methods used in sequence alignment.
- b) Explain Dynamic Programming methods used in bioinformatics with suitable examples.

Q. 5 Attempt Any Two of the following: (10)

- a) Explain the Sum-of-Pairs scoring method in multiple sequence alignment.
 - b) Describe the Progressive Alignment method with reference to Clustal W.
 - c) Explain the Iterative Alignment method and its significance.
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