

**RAN-2603000506046001**

**T.Y.B.Sc. (Sem. VI) Examination March - 2026**  
**MB-ME-601 : Microbiology (Minor) : Genomics and Proteomics**

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

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| <p><b>સૂચના : / Instructions</b></p> <p>(1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી.<br/>         Fill up strictly the above details on your answer book.</p> <p>(2) Figures to the right indicate full marks of the question.</p> <p>(3) Draw neat and labelled diagrams wherever necessary.</p> | <p>Seat No.:</p> <table border="1" style="width: 100%; height: 20px; border-collapse: collapse;"> <tr> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> <td style="width: 15%;"></td> </tr> </table> <div style="border: 1px solid black; height: 80px; margin-top: 10px; position: relative;"> <div style="position: absolute; bottom: 5px; right: 5px; font-size: small;">Student's Signature</div> </div> |  |  |  |  |  |  |
|                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |  |  |  |

**Q. 1                      Give the specific answers of the following. (ANY FIVE)                      (05)**

- a. Full Form - ddNTPs
- b. What are DNA adapters?
- c. Who developed Whole Genome Shotgun Sequencing?
- d. Define Structural proteomics.
- e. What is difference between MS and tandem MS?
- f. What is protein microarray?

**Q. 2                      Answer the following. (ANY TWO)                      (10)**

- a. Explain advantages and disadvantages of Sanger chain termination method.
- b. Microarrays vs RNA-Seq in Transcriptome analysis.
- c. Give brief explanation of GO annotation for cytochrome C oxidase.

**Q. 3                      Answer the following. (ANY TWO)                      (10)**

- a. Explain 2D gel electrophoresis
- b. Write about an application of proteomics in drug discovery.
- c. Discuss Predicting Protein- protein interaction based on phylogenetic information.