



RAN - 2103000205021052

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**T. Y. B. Sc. (Sem. - V) Examination March - 2023**

**Bioscience (Microbiology)**

**Bacterial Genetics and Biotechnology : BS - 502**

[ Total Marks: 50

**सूचना : / Instructions**

(1)

नीचे दृशविले निशानीवाणी विगतो उत्तरवही पर अवश्य लभवी.  
Fill up strictly the details of signs on your answer book

Name of the Examination:

T. Y. B. Sc. (Sem. - V)

Name of the Subject :

Bioscience (Microbiology) Bacterial Genetics and Biotechnology : BS - 502

Subject Code No.: 2103000205021052

Seat No.:

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| Student's Signature |
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- (2) Figures to the right indicate full marks.  
(3) Draw neat & clean diagram wherever necessary.

**Q. 1 Answer in brief:**

**12**

1. Define: HGT, Ribozyme.
2. Enlist the blot techniques.
3. State the transgenic organism with suitable example.
4. Which are the different types of bacterial recombination?
5. Describe in brief NA hybridization.
6. Name the scientists involved with bacterial conjugation process.

**Q. 2 Answer Any Two of the following:**

**14**

1. Describe in brief Transposons.
2. State the general characteristics of cloning vector. Explain in brief plasmid as a cloning vector.
3. Write a note on general method of PCR.

**Q. 3** Describe in brief protein synthesis in bacteria. **14**

**OR**

**Q. 3** **Answer the following:** **14**

1. Explain in brief gel electrophoresis.
2. Discuss in detail about structure of Lac Operon.

**Q. 4** **Write short note on Any Two.** **10**

1. BAC and YAC.
  2. Transformation.
  3. Application of rDNA in agriculture.
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