



RAN - 2203000206026001

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T.Y.B.Sc. (Sem. VI) Examination April - 2023

Microbiology : MB-601 - Genetic Engineering

Time: 2 Hours]

[Total Marks: 50

सूचना : / Instructions

(१)

नीचे दशविवेक निशानीवाणी विगतो उत्तरवली पर अवश्य लपववी.
Fill up strictly the details of signs on your answer book

Name of the Examination:

T.Y.B.Sc. (Sem. VI)

Name of the Subject :

Microbiology : MB-601 - Genetic Engineering

Subject Code No.: **2203000206026001**

Seat No.:

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Student's Signature

- (2) Figures to the right indicate full marks of the question.
(3) Draw neat and labelled diagrams whenever necessary.

Q.1 Give Specific answers:

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1. Define: a) Genetic Engineering b) Protoplast Fusion
2. What are poison sequences? Explain.
3. State the features of vectors used for cDNA cloning and expression.
4. Name four recombinant enzymes used as Biopharmaceuticals.
5. State the advantages of Bioinsecticides.
6. Enlist the applications of PCR.

Q.2 Explain/comment on any two of the following

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- a. Several DNA analytical strategies help in identification of crime suspects.
- b. Explain the amplified and subgenomic libraries.
- c. pBR322 is a suitable vector in gene cloning.

Q.3 Discuss any two of the following.

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- a. Write a note on the enzymes used for gene cloning.
- b. Discuss the potential applications of genetic engineering
- c. Discuss the properties of cDNA's and cDNA libraries.

Q.4 Write short notes on any two of the following

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- a. Conventional breeding: A method of gene manipulation.
 - b. Cosmid and Phasmid vectors
 - c. Cloning δ -endotoxin gene in Maize
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