

RAN-2603001306011001
B.Sc. (Biotechnology) (Sem. VI) Examination March - 2026
Major-1 : Microbial Biotechnology
Time: 1 Hour]
[Total Marks: 25
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 of the question.
- (3) Draw neat and labeled diagrams whenever necessary.

Seat No.:

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Student's Signature

Q. 1 Answer in brief any five of the following:
(05)

- a) Define fermentation.
- b) Name one microorganism used in ethanol production.
- c) State one advantage of microbial fermentation.
- d) Define microbial screening.
- e) What is primary screening?
- f) Why is aseptic operation is necessary in fermenters?

Q. 2 Attempt any two of the following:
(10)

- a) Define fermentation technology and explain its scope and industrial importance.
- b) Describe the chronological development of industrial fermentation technology with suitable examples.
- c) Analyze the role of microbial screening in discovery of industrially useful microorganisms.

Q. 3 Attempt any two of the following:
(10)

- a) Explain the selection of mutants producing high yield of secondary metabolites.
- b) Explain protoplast fusion and its industrial applications.
- c) Design an ideal fermenter for industrial antibiotic production mentioning all essential components.