



RAN-0939

B. Sc. Microbiology (Sem.-IV) Examination

March / April - 2019

MB 10: Microbiology of Ecosystems (New)

Time: 2 Hours]

[Total Marks: 50

સૂચના : / Instructions

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

☛ **B. Sc. Microbiology (Sem.-IV)**

Name of the Subject :

☛ **MB 10: Microbiology of Ecosystems (New)**

Subject Code No.:

0 9 3 9

Seat No.:

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Student's Signature

Instructions:

1. Figures to the right indicate full marks of the question.
2. Draw neat and labelled diagrams whenever necessary.

Q.1 Give Specific answers

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- a. Define coral bleaching with an example.
- b. What does oxygen sag curve represent?
- c. Differentiate: Autochthonous Vs Allochthonous.
- d. What is C/N ratio? How does it correlate with soluble nitrogen in the system?
- e. Give full form of SOM with its definition.
- f. Define competition with an example.

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

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- a. The production of nitrate influences the N₂ cycling of the earth.
- b. Microbial loop is a key to survival in the photic zone.
- c. Microbial degradation of plant material involves three step processes.

Q3. Discuss any two of the following.

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- a. Explain the infection initiation and formation of infection thread in nitrogen fixation process.

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[1]

[P.T.O.]

- b. Define predation with examples of predatory microorganisms.
How can a predator confer positive benefits on its prey?
- c. Discuss in detail the steps involved in sulfur cycling of the earth.

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

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- a. Anammox reaction.
 - b. Microorganisms in glaciers.
 - c. Syntrophism.
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