R A N - 0 9 3 9

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.:

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 **12**

a. Define coral bleaching with an example.
b. What does oxygen sag curve represent?
c. Differentiate: Autochthonous Vs Alochthonous.
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 **12**

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. **16**

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

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 **10**

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

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