



RF-3431-32
M. Sc. Examination
April / May – 2010
Microbiology : Paper - IV
(Environmental Microbiology)

Time : 3 Hours]

[Total Marks : 54

RF-3431

Instructions :

(1)

<p>नीचे दशांशके निशानीवाणी विगतो उत्तरवही पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : M. Sc.</p> <p>Name of the Subject : MICROBIOLOGY - 4</p> <p>Subject Code No. : <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="3"/> <input type="text" value="1"/> Section No. (1, 2,.....): <input type="text" value="1"/></p>	<p>Seat No. : <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; width: 100%;">Student's Signature</div>
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- (2) Figures to the right indicate full marks of the question.
(3) Draw neat and labelled diagrams whenever necessary.

- 1 Attempt the following : 15
- (a) What is green house gas? Give examples of and discuss their possible importance. 8
- OR**
- (a) Explain the role of positive interactions amongst microorganisms in the environment. 8
- (b) Discuss the characteristics of water which make it ideal for growth of microbes. 7
- OR**
- (b) Define Microbial diversity. Explain its significance in ecosystem. 7
- 2 Write short notes on : (any three) 12
- (a) Immobilization and mineralization of Phosphorus in ecosystem
- (b) Construction and biochemistry of trickling filter
- (c) BOD Vs COD
- (d) Symbiotic Nitrogen Fixation : Process and Microorganisms involved
- (e) Management of Biomedical waste.

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Name of the Examination :	<input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/>
<input type="text" value="M. Sc."/>	<input type="text" value="Student's Signature"/>
Name of the Subject :	
<input type="text" value="MICROBIOLOGY - 4"/>	
Subject Code No. : <input type="text" value="3"/> <input type="text" value="4"/> <input type="text" value="3"/> <input type="text" value="2"/>	Section No. (1, 2,.....) : <input type="text" value="2"/>

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

1 Attempt the following :

- (a) Describe the coral reef as a specialized oceanic ecosystem. 8

OR

- (a) Write in detail about Bioremediation concern with oil sprill and hazards waste. 8
(b) Discuss in detail about the formation of Biofilm and give its applications. 7

OR

- (b) What is Biodegradation? Elaborate a note on "Biodegradation of Pesticides." 7

2 Write short notes on : (any three) 12

- (a) Application of GMOs in bioremediation
(b) Biomagnification
(c) Biodeterioration of Pharmaceutical products
(d) Approaches for bioprospectives
(e) Methods for studying microbial diversity of extreme environment.