



R-3805-06

M. Sc. In. Biotechnology (Sem. IV) Examination

May / June - 2010

IBT - 402 : Microbiology - II

(New Syllabus)

Time : 3 Hours]

[Total Marks : 70

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Instructions :

(1)

नीचे दशांशविक निशानीवाणी विगतो उत्तरवही पर अवश्य लिखवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="M. SC. IN. BIOTECHNOLOGY (SEM. 4)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="IBT - 402 : MICROBIOLOGY - 2"/>	<input type="text"/>
Subject Code No. : <input type="text" value="3"/> <input type="text" value="8"/> <input type="text" value="0"/> <input type="text" value="5"/>	Section No. (1, 2,.....) : <input type="text" value="1"/>
Student's Signature	

- (2) Figures to the right indicate full marks of the question.
(3) Draw neat and labelled diagrams whenever necessary.
(4) Both sections must be written in separate answer books.

1 Define the term Growth. Derive the equation for the calculation of growth rate and generation time. 10

OR

1 Define synchrony and synchronization. Explain in detail various methods to obtain synchronous culture. Give its applications. 10

2 Write an exhaustive note on microbiological assay of antibiotics. 10

OR

2 What are antibiotics? Explain in detail antifungal antibiotics. 10

3 Write short notes on : (any three) 15

- (a) Mechanism of action: Penicillin Vs Chloramphenicol
(b) Non-medical uses of antibiotics
(c) Binary fission in bacteria
(d) Logarithmic decline phase.

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[Contd...

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Instructions :

(1)

नीचे दशांशके निशानीवाणी विगतो उत्तरवही पर अवश्य कभवी. Fillup strictly the details of signs on your answer book.	Seat No. :
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. IN. BIOTECHNOLOGY (SEM. 4)"/>	<input type="text" value="Student's Signature"/>
Name of the Subject :	
<input type="text" value="IBT - 402 : MICROBIOLOGY - 2"/>	
Subject Code No. : <input type="text" value="3"/> <input type="text" value="8"/> <input type="text" value="0"/> <input type="text" value="6"/>	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.
(4) Both sections must be written in separate answer books.

4 What are sigma factors? Give classification of various sigma factors of Escherichia coli along with their functions. 10

OR

4 Explain in detail various mechanisms for uptake of nutrients by the bacterial cell across cell membrane. 10

5 Explain in detail Green sulphur bacteria. 10

OR

5 What are Endospores? Explain activation, germination and outgrowth of endospores. 10

6 Write short notes on : (any three) 15

- (a) Heat shock protein
- (b) Membrane lipids
- (c) Hydrogen bacteria
- (d) Methanogenesis.