

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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Fillup strictly the details of - signs on your answer book. Name of the Examination:	
M. SC. IN. BIOTECHNOLOGY (SEM. 4)	
Name of the Subject :	Th control of the con
● IBT - 402 : MICROBIOLOGY - 2	
Subject Code No.: 3 8 0 5 Section No. (1, 2,): 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.
- Define the term Growth. Derive the equation for the calculation of growth rate and generation time.

OR

- Define synchrony and synchronization. Explain in detail various methods to obtain synchronous culture. Give its applications.
- 2 Write an exhaustive note on microbiological assay of antibiotics.

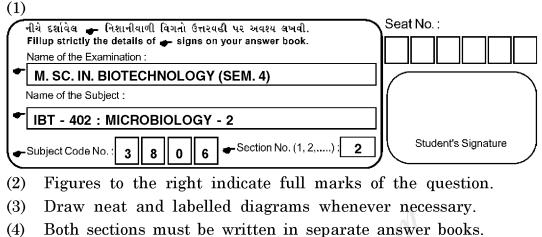
OR

- 2 What are antibiotics? Explain in detail antifungal antibiotics.
- 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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- 4 What are sigma factors? Give classification of various 10 sigma factors of Escherichia coli along with their functions.

OR

- 4 Explain in detail various mechanisms for uptake of nutrients by the bacterial cell across cell membrane.
- 5 Explain in detail Green sulphur bacteria. 10

OR

- 5 What are Endospores? Explain activation, germination 10 and outgrowth of endospores.
- 6 Write short notes on : (any three) 15
 - (a) Heat shock protein
 - (b) Membrane lipids
 - (c) Hydrogen bacteria
 - (d) Methanogenesis.

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