

## R-3791

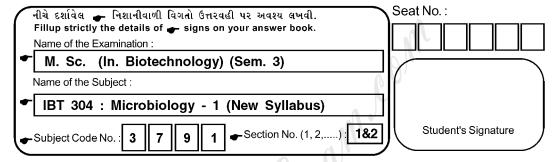
## M. Sc. (In. Biotechnology) (Sem. III) Examination May/June - 2010

IBT 304: Microbiology - I

(New Syllabus)

Time: 3 Hours]	[Total Marks : 70
<b>Instructions</b> :	

(1)



- (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.

## **SECTION-I**

Define following terms: 1 6 Exomicrobiology (a) (b) Abiogenesis (c) Bergey's manual (d) **Tyndallization** Axenic culture (e) Virulence. (f) 2 What are the three principle modes of nutrition in 7 eukaryotic organisms? Discuss: Whittaker's five kingdom concept.

OR

- 2 (a) Give the scientific contribution of Louis Pasteur. 7
  - (b) Explain about the three domain system of classification. 7

Discuss in detail scientific contribution of Robert Koch.

7

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(b)

3

Write notes (any three):

	(a)	Groups of microorganisms	
	(b)	Methods for classifying bacteria	
	(c)	Germ theory of disease	
	(d)	Numerical Taxonomy	
	(e)	Applied areas of Microbiology.	
		SECTION-II	
4	Def	ine following terms:	6
	(a)	Resolving power	
	(b)	Sphaeroplast	
	(c)	Photolithotrophs	
	(d)	Amphitrichous flagella	
	(e)	SEM	
	(f)	Autoradiography.	
5	(a)	Discuss : Bacteriological media	7
	(b)	Give applications and limitations of electron microse	copy. <b>7</b>
		OR	
5	Def	ine pure culture and colony. Discuss in detail	14
		ut the techniques for isolation of pure culture.	
6 Write notes: (any three)		15	
	(a)	Dark-field microscopy	
	(b)	Classification of protozoa	
	(c)	"Algae as food"	
	(d)	Gaseous sterilization	
	(e)	Classification and economic importance of Fungi.	
		(X, X, Y)	

**15** 

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