



RR-0838

Third Year B. Sc. Examination

March / April – 2010

Microbiology : Paper - IX

(Food Microbiology & Fermentation Technology)

Time : 3 Hours]

[Total Marks : 70

Instructions :

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="T. Y. B. Sc."/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Microbiology : 9"/>	<input type="text"/>
Subject Code No. : <input type="text" value="0"/> <input type="text" value="8"/> <input type="text" value="3"/> <input type="text" value="8"/>	<input type="text"/>
Section No. (1, 2,.....) : <input type="text" value="Nil"/>	
Student's Signature	

- (2) All questions are **compulsory**.
- (3) Figures to the right indicate full marks of the question.
- (4) Draw neat diagrams wherever necessary.

1 Answer the following in brief : 14

- (a) Name the organisms used as SCP.
- (b) Enlist the advantages of fermented food products.
- (c) How does industrial media differ from laboratory media?
- (d) Explain the principle involved in food preservation using high salt or sugar concentration.
- (e) Why sanitation is preferred over sterilization in fermentation industry?
- (f) State the different ways in which contaminants can be a nuisance in fermentor.
- (g) Define
 - (i) Transition
 - (ii) Transversion

- 2** Comment on explain any **three** of the following : **15**
- (a) Modern food processing technology involves various methods for preservation of food.
 - (b) Traditional fermentation products are even today acclaimed.
 - (c) Starter cultures are necessary in Dairy products.
 - (d) Food is an ideal medium for the growth of micro-organisms.
 - (e) Base analogs are not used for industrially important strains.

- 3** Answer any **two** of the following : **14**
- (a) How is fermentation media designed at industrial level? State its importance.
 - (b) Discuss the production and bioassay of Riboflavin.
 - (c) What is secondary screening? Discuss the various steps including its advantages and disadvantages.

- 4** Write an essay on : **12**
Immobilization of Enzymes, its applications and future prospects.

OR

Types of fermentors with special reference to

- (i) Design
- (ii) Working
- (iii) Advantages and disadvantages

- 5** Write short notes on any **three** of the following : **15**
- (a) Methods of releasing intracellular fermentation product
 - (b) Spoilage of fresh food
 - (c) S.C.P. Production and Application
 - (d) Sources of contamination of milk
 - (e) Batch and continuous process for sterilization of media.