

**B.Sc. 2362 - Micro-Biology : Paper-II**  
**(Industrial And Food Microbiology)**

P. Pages : 2

Time : Three Hours



**GUG/W/16/3347**

Max. Marks : 50

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- Notes : 1. All questions are compulsory and carry equal marks.  
2. Draw well labelled diagram wherever necessary.

1. Describe general layout of fermentation with suitable diagram with its different parts. **10**

**OR**

Describe biochemistry and industrial production of ethyl alcohol. **10**

2. Discuss different sources of microorganisms in milk. **10**

**OR**

Describe high temperature methods of food preservation. **10**

3. a) Write note on strain development. **2½**

b) Describe briefly Baker's yeast production. **2½**

c) Describe different methods of pasteurization of milk. **2½**

d) Classify the foods based on ease of spoilage. **2½**

**OR**

e) Describe typical continuous fermenter with a suitable diagram. **2½**

f) Describe Lysine production. **2½**

g) Explain principle and procedure of phosphatase test. **2½**

h) Describe the factors responsible for food spoilage. **2½**

4. a) Describe down – stream and upstream process. **2½**

b) Describe industrial production of citric acid by surface culture method. **2½**

c) Describe cottage cheese production. **2½**

d) Explain Radiation as a method of food preservation. **2½**

**OR**

- e) Describe auxanography method of primary screening. 2½
- f) Write different types of wine. 2½
- g) Describe MBRT to determine the grades of milk. 2½
- h) Write note on Idli preparation. 2½

5. Attempt **any ten** of followings.

- a) Which raw material and microorganism is used for acetone – butanol fermentation. 1
- b) What is dual culture fermentation? Give example. 1
- c) Write the name of any two antifoaming agents. 1
- d) Give examples of any two types of beers. 1
- e) Give biosynthesis of penicillin production. 1
- f) What is Sparger? Give its function. 1
- g) Write any two examples of Hard cheese. 1
- h) Which carbohydrate is present in milk? 1
- i) What is Rennet Curd? 1
- j) Write the symptoms of Botulism. 1
- k) What is HACCP? 1
- l) Give the example of any two food additives. 1

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