

**PARUL UNIVERSITY**  
**FACULTY OF APPLIED SCIENCE**  
**M.Sc., Winter 2019-20 Examination**

**Semester: 3**  
**Subject Code: 11201201**  
**Subject Name: Food and Dairy Microbiology**

**Date: 04/12/2019**  
**Time: 02:00 pm to 04:30 pm**  
**Total Marks: 60**

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**Instructions:**

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

- Q.1. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**  
(a) Discuss sauerkraut fermentation.  
(b) Discuss briefly beer Fermentation.
- Q.1. B) Answer the following questions (Any two) (04)**  
(a) write a Short note on the following (2x2)  
1. State Sources and symptoms of Clostridium food borne infection.  
2. State Prevention of Salmonella food borne infection.  
(b) Short note on BIS (04)  
(c) Short note on Physical methods used in food preservation. (04)
- Q.2. A) Answer the following questions. (04)**  
(a) Answer the following (Each of 02 marks)  
1. Write down the full form of HACCP and ISI.  
2. Name different types of sausages  
(b) Short note on soy sauce. (04)
- Q.2. B) Answer the following questions (Any two) (03)**  
(a) Define the following:  
1. Cross contamination  
2. GMF  
3. Mycotoxin  
(b) Which method is best for food preservation? Why? (03)  
(c) Write down the applications of Baker's Yeast. (03)
- Q.3. A) Essay type/ Brief note (4x2) (Each of 04 marks) (08)**  
(a) Discuss the characteristics of starter culture.  
(b) State the applications of Lipase.
- Q.3. B) Answer the following questions (Any two) (04)**  
(a) Answer the following  
1. Name Requirements for whiskey preparation.  
2. Name any four enzymes which are used in food industry.  
(b) Short note on upstream production of Baker's Yeast. (04)  
(c) Short note on different types of tea. (04)
- Q.4. A) Answer the following questions. (04)**  
(a) Short note (Each of 02 marks)  
1. Nutritional value of Saurkraut  
2. Nutritional value of dairy by-product - whey.  
(b) Discuss briefly 'Biosensors in food industry'. (04)
- Q.4. B) Answer the following questions (Any two) (03)**  
(a) Answer the following.  
1. Give some example of GMF.  
2. Name Different types of whisky.  
3. What is the function of FDA?  
(b) Discuss Principle of HACCP. (03)  
(c) Discuss different types of Chemicals used in food preservation. (03)