

Seat No.: \_\_\_\_\_

Enrolment No. \_\_\_\_\_

**GUJARAT TECHNOLOGICAL UNIVERSITY****BE- SEMESTER-VII (NEW) EXAMINATION – WINTER 2020****Subject Code:2171403****Date:25/01/2021****Subject Name:Milk & Milk Products Technology****Time:10:30 AM TO 12:30 PM****Total Marks: 56****Instructions:**

1. Attempt any FOUR questions out of EIGHT questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Write a note on 'Freezing point of milk' **03**
- (b) Explain the extraction process of vanilla and chocolate flavour. **04**
- (c) Enlist the factors affecting quality and quantity of milk obtained from source animal and explain any four of them. **07**
- Q.2** (a) Write the advantages of preparation of:  
i) Reconstituted milk ii) Toned milk iii) Fermented milk **03**
- (b) Enlist the important platform tests used for quality evaluation of milk and describe any three platform tests. **04**
- (c) Define Churning of cream. Discuss the factors affecting churnability of cream. **07**
- Q.3** (a) Explain the flow diagram of preparation of paneer. **03**
- (b) Explain the technology of preparation of sterilized milk. **04**
- (c) Discuss the following steps in the preparation of cheddar cheese:  
i) Addition of starter culture ii) Renneting **07**
- Q.4** (a) Discuss chhana with respect to its composition and process of preparation. **03**
- (b) Write the objectives of preparation of homogenized milk and explain the flow chart of its preparation. **04**
- (c) What is processed cheese and how it is prepared? **07**
- Q.5** (a) Classify the ingredients used for preparation of ice cream. **03**

- (b) Discuss the common defects occur in butter with their possible causes and prevention. **04**
- (c) Define Condensed milk and briefly explain the process of its production. **07**
- Q.6** (a) State the legal standards for ice cream? **03**
- (b) Write the legal requirements for butter and discuss the different types of butter. **04**
- (c) Explain the principle and methods of cream separation. **07**
- Q.7** (a) Write down the legal standards for whole milk powder and skim milk powder. **03**
- (b) What are the role of stabilizers and emulsifiers used in ice cream preparation? **04**
- (c) Classify the constituents present in milk and discuss the characteristics of the major constituents. **07**
- Q.8** (a) Write a short note on 'Overrun in butter' **03**
- (b) Discuss the role of constituents present in ice cream. **04**
- (c) Discuss the common flavour defects observed in milk with their possible causes and prevention. **07**

\*\*\*\*\*