

Seat No.: _____

Enrolment No. _____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER-VI • EXAMINATION – SUMMER • 2014

Subject Code: 161405

Date: 26-05-2014

Subject Name: Milk and Milk Products Technology

Time: 10:30 am - 01:00 pm

Total Marks: 70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1 (a)** Describe the following steps in the preparation of butter: **07**
i) Pasteurization of cream
ii) Churning
iii) Washing of butter
- (b)** Explain the common quality control tests for milk with their significance. **07**
- Q.2 (a)** Discuss in detail Operation flood with its major achievements. **07**
(b) Write short notes on: **07**
i) Flavours as ice-cream ingredient
ii) Toned milk
- OR**
- (b)** Write short notes on: **07**
i) Sterilized milk
ii) Paneer
- Q.3 (a)** Write detailed composition of milk. Explain the factors affecting the composition of milk. **07**
(b) How processed cheese is different from processed cheese spread? Explain the method of manufacture of processed cheese. **07**
- OR**
- Q.3 (a)** Explain the various physico-chemical properties of milk. **07**
(b) Give the classification of the cheese based on the moisture content and explain the flow diagram for manufacturing of cheddar cheese with technical details. **07**
- Q.4 (a)** Define malted milk food. State the PFA standards and process of preparation of malted milk food. **07**
(b) Describe briefly the various milk drying systems. **07**
- OR**
- Q.4 (a)** Write advantages and disadvantages of spray drying over roller drying. Explain line diagram for production of spray dried milk powder. **07**
(b) Define Khoa according to PFA rules. Discuss the classification and process of preparation of khoa. **07**
- Q.5 (a)** Discuss the common defects in butter with their causes and prevention. **07**
(b) Describe the role of constituents in ice-cream. **07**
- OR**
- Q.5 (a)** Define Ice-cream. Write the PFA standards, classification and nutritive value of ice-cream. **07**
(b) Write short notes on: **07**
i) Recombined milk
ii) Cream separation methods
