

**POST GRADUATE DIPLOMA IN
FOOD SCIENCE AND TECHNOLOGY
(PGDFT)**

Term-End Examination

December, 2013

MFT-007 : DAIRY TECHNOLOGY

Time : 3 hours

Maximum Marks : 70

Note : (i) *Attempt any five questions.*
(ii) *All questions carry equal marks.*

1. (a) Describe the salient features and major achievements of the Operation Flood (OF) programme. 4
- (b) Give the composition of cow and Buffalo milk. Explain factors affecting the composition of milk. 5
- (c) Explain the principle and process of homogenization with the help of diagram. 5
2. (a) Explain important milk pre-processing operations. 4
- (b) Define pasteurization and its objectives. Describe HTST pasteurization process and its principle with the help of a diagram. 10
3. (a) Give the definition and average composition of Ice cream. Give the method for preparation of Ice cream with the help of flow diagram and processing parameters. 7
- (b) Define "condensed milk (sweetned)". Give its composition and method of manufacture with appropriate processing parameters. 7

4. (a) What are the main criteria for classification of dried milks ? Give the basic operating parameters for roller drying process. 4
- (b) What is "Instantization of Milk Powder" ? Explain the basic features of instantization process. 4
- (c) What is malted milk food and quality standards as per BIS - requirements ? Describe the steps involved in production of malted milk powder. 6
5. (a) Describe the steps with purpose involved in manufacture of lactose powder. 5
- (b) What is principle of Cream Separation ? Define skimming efficiency and explain the factors affecting the skimming efficiency. 5
- (c) Describe the steps and their purpose involved in manufacture of table butter. 4
6. (a) Define Ghee and give average composition of Ghee. Explain the principle for manufacture of Ghee. Describe the "Pre-stratification" method of making Ghee. 6
- (b) Describe the principle and process of manufacture of cheddar cheese with proper processing parameters. 8
7. (a) Explain the important skills and traits of an entrepreneur. 4
- (b) Describe the method of manufacture of Mozzarella Cheese by direct acidification method. 5
- (c) Give the average composition of Paneer. Explain the important steps with purpose involved in manufacture of paneer. 5
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