



(Following Paper ID and Roll No. to be filled in your Answer Book)

PAPER ID : 182605

Roll No.

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B. Tech.

(SEM. VI) THEORY EXAMINATION, 2014-15

DAIRY TECHNOLOGY

Time : 3 Hours]

[Total Marks : 100

Note: (1) Attempt all questions.

(2) Each question carries equal marks.

1 Attempt any four parts of the following : $4 \times 5 = 20$

- (a) Define milk. Give the detailed composition of milk.
- (b) Discuss the factors affecting composition of milk.
- (c) Discuss the physico-chemical properties of milk.
- (d) What do you understand by standardization of milk? How many kg of each 28% cream and 3% milk will be required to make 500 kg mixture of 4% fat?
- (e) With the help of neat schematic diagram explain HTST pasteurization of milk.

2 Attempt any two parts of the following: $2 \times 10 = 20$

- (a) Explain the principle and method of separation of cream by centrifugal method.

- (b) Discuss cleaning and sanitization of dairy equipments.
- (c) Discuss the Fat and Acidity Test for milk quality. How will you check the adulteration in milk?
- 3 Attempt any two parts of the following: $2 \times 10 = 20$
- (a) Give the classification of butter. Explain the objectives of washing, salting and working in butter making.
- (b) Differentiate between Ghee and butter oil. Discuss the manufacturing process of Ghee.
- (c) Discuss the role of the various constituents in ice-cream. Also discuss Over-run in ice-cream.
- 4 Attempt any two parts of the following: $2 \times 10 = 20$
- (a) With the help of neat flow sheet discuss the method of manufacture, packaging and storage of condensed milk.
- (b) Discuss the advantages of spray drying of milk over roller drying. Also discuss the manufacturing process of spray dried milk.
- (c) Discuss the process of Instantization of dried milk powder. Explain the term Reconstitutibility, Dispersibility, Wettability and Sinkability.
- 5 With the help of neat flowsheet discuss the manufacturing process of any two of the following: $2 \times 10 = 20$
- (a) Casein
- (b) Whey Protein Concentrate
- (c) Lactose