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Roll No. XXXXXXXXXX

B. Tech.
(SEM VI) THEORY EXAMINATION 2017-18
DAIRY TECHNOLOGY

*Time: 3 Hours**Total Marks: 100***Note:** Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief.

2 x 10 = 20

- a. Give the definition of milk according to FSSAI.
- b. Enlist major, minor, true constituents of milk.
- c. Differentiate between natural and developed acidity of milk.
- d. Enlist the major adulterants that are used to adulterate milk.
- e. Give the merits of Homogenized milk.
- f. What is the purpose of ripening of cream during butter manufacturing?
- g. Give the classification of ice-cream.
- h. What is pilot sterilization test?
- i. Write the importance of conversion of fluid milk to milk solids.
- j. Enlist the by-products of dairy industry.

SECTION B

2. Attempt any *three* of the following:

10 x 3 = 30

- a. Give the standards of various types of milk according to Food Safety and Standards Act, 2006.
- b. With the help of neat flow sheet, discuss the manufacturing of standardized milk.
- c. Discuss the purpose of washing, salting and working in the manufacturing of butter.
- d. Differentiate between the principles and merits, demerits of roller and spray drying of milk.
- e. Write a note on the effective utilization of dairy by products.

SECTION C

3. Attempt any *one* part of the following:

10 x 1 = 10

- a. Discuss the physico - chemical properties of milk.
- b. State the objective of pasteurization of milk. Also discuss the HTST pasteurization with the help of a neat schematic diagram.

4. Attempt any *one* part of the following: 10 x 1 = 10
- a. Discuss the composition and the Physico-Chemical properties of cream.
 - b. Discuss the cleaning and sanitization of dairy equipment.
5. Attempt any *one* part of the following: 10 x 1 = 10
- a. Differentiate between butter oil and ghee. Discuss the method of manufacturing of ghee.
 - b. Enlist and discuss the role of the various constituents in ice-cream.
6. Attempt any *one* part of the following: 10 x 1 = 10
- a. Define condensed milk, and discuss the method of manufacture, packaging and storage of evaporated milk.
 - b. Explain the process of Instantization of dried milk powder.
7. Attempt any *one* part of the following: 10 x 1 = 10
- a. What are the industrial uses of casein? Explain the method of manufacture of casein.
 - b. Discuss the various methods of examination of quality of milk.