KERALA AGRICULTURAL UNIVERSITY

B.Tech. (Agrl. Engg.) 2013 Admission

VIIIth Semester Special Re-Examination-June 2017

Cat. No: Phpt 4107

Title:Dairy and Food Engineering (2+1)

Marks: 50

Time : 2 hours

I. Fill up the blanks:

(10 x 1=10)

1. Solid ice, liquid water and water vapor co-exist at ----------------

2. The time temperature combination for the UHT pasteurization of milk is ---------------- °C for ---------------- sec.

3. The process of atomization of liquid food material into a hot gas stream is called ----------------

4. On equal weight basis, fat generally yields ---------------- times as many calories as protein and carbohydrates.

5. Developed or real acidity in milk is due to ----------------

6. The tests which are performed to check the quality of incoming milk on the receiving platform is known as ----------------

7. ---------------- law is used to find out the drag coefficient of a particle moving through a fluid.

8. The removal of water from a food material by direct sublimation from the frozen state to the vapor state is known as ----------------

9. In milk, protein is present in ---------------- state.

10. The product derived out of milk after removal of cream is known as ----------------

II. Write short note on ANY FIVE:

(5x 2=10)

1. Butter churning.

2. Standardization of milk.

3. Bactofugation

4. Equilibrium moisture content.

5. Combiblock aseptic system.

6. Homogenization on milk.

7. Curing of cheese.

III Write answers on ANY FIVE:

(5 x 4=20)

1. Explain Arrhenius equation and thermal death time.

2. List out the cleaning sequences in washing of milk cans in a dairy.

3. Write about the centrifugal atomization system for spray drying of milk.

4. Define over run in ice .

5. What are the major factors affecting the food deterioration?

6. Explain working of Swenson Walter crystallizer.

7. What is multiple effect evaporation?

IV. Write essay on any ONE　　　　　　　　　　　　　　　(1 x 10=10)

1. Explain the method of manufacture of cottage cheese.

2. With a neat diagram explain the working principle of air operated flow diversion valve in the HTST Pasteurizer.

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