



- iv) The time-temperature combination of HTST pasteurization is
- a) 63° C/30 min b) 72° C/15 sec
- c) 74° C/7 sec d) None of these.
- v) The full form of FDV is
- a) Float Diversion Value b) Flow Diversion Value
- c) Flow Division Value d) Float Division Valve.
- vi) Example of an acid-alcohol fermented milk product is
- a) Kefir b) Cultured buttermilk
- c) Yoghurt d) Acidophilus milk.
- vii) Baume Hydrometer is most commonly used for density measurement of
- a) Dried milk b) Condensed milk
- c) Milk d) None of these.
- viii) The number of leucocytes increases in
- a) Pasteurized milk b) Sterilized milk
- c) Mastitic milk d) None of these.
- ix) Gerber method is used for estimation of
- a) Fat content of milk b) Protein content of milk
- c) Acidity of milk d) None of these.
- x) Payment of milk according to the fat content is called
- a) Single axis pricing policy
- b) Double axis pricing policy
- c) Triple axis pricing policy
- d) None of these.



GROUP – B

(Short Answer Type Questions)

Answer any *three* of the following.

3 × 5 = 15

2. Define sterilization. What are the advantages of HTST process ?

3. How can there be an increase in temperature of stored milk ?

How can there be an increase in acidity of stored milk ?

$2 \times 2\frac{1}{2}$

4. High phosphatase value in pasteurized milk suggests what type of defects in milk processing ? What is the role of pressure differential in continuous pasteurization process ?

3 + 2

5. What is Aseptic Packaging ? What do you mean by the terms “aseptic” and “hermetic” ? Write down the microbiological aspect of Aseptic Packaging.

2 + 1 + 2



GROUP – C

(Long Answer Type Questions)

Answer any *three* of the following. $3 \times 15 = 45$

6. What is the difference between freezing and hardening of ice cream ? Write about the methods of hardening of ice cream. Discuss about five defects of ice cream with their causes and preventive measures. Write the ISI specification of ice cream. What is whipping rate ? $3 + 4 + 5 + 2 + 1$
 7. What do you mean by the term 'Platform test' ? Discuss briefly about various platform tests done on the reception dock of a dairy plant. What do you mean by the term 'Quality' ? Discuss about the steps involved in HACCP certification. $2 + 5 + 2 + 6$
 8. Differentiate between Kefir and Kumiss. Give the process flow diagram of Cheddar cheese. Explain the milk-clotting mechanism by rennet action during cheese processing. Give two examples of semi-hard cheese. $4 + 7 + 3 + 1$
 9. Define churning in the butter making process. What is skimming efficiency of cream separator ? Given 100 kg of milk testing 7.5% fat. Cream produced 14.1 kg testing 52.5% fat. Determine the SE ? What is the role of salting in butter making ? Fat in churn = 800 kg. Butter is to contain 2.0% salt. How much salt to be added to the churn ? $3 + 3 + 4 + 2 + 3$
 10. What is CIP ? What is milk stone ? How it can effectively be removed from dairy equipments ? Discuss about different types of detergents and sanitizers used in dairy industry. $2 + 2 + 3 + 8$
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