



Please answer the following:-

I- First question (7 marks) (ILOs: a4,a6,a7, a9,b1 to b4)

A) complete the following sentences

(3 marks/ 1.5 marks each)

1- The role played by egg lysozyme as antimicrobial defense mechanism are and While Avidin is

2- Eating one table egg provide the body with.....¹.....
.....²..... and³.....

B) Choose the correct answer:-

(2 marks/ 1 mark each)

1- Ripening of cheese is attained by enzymes from

- a) Milk itself b) Rennet c) Starter bacteria d) All of them

2- Exterior quality of eggs is checked by:

- a) Floating test b) Naked eyes c) shaking test d) All of them

C) Mention the defects due to contamination of cheese with spore former bacteria, sources of contamination and methods of their prevention? (2 marks)

II- Second question (6 marks) (ILOs:a4,a5,a6,a7,b1to b4)

Please answer the following:

1- During manufacturing of condensed milk, heat treatment step is (CCP1 or CCP2). It is designed to (1 mark)

2- Aspergillus repens is the cause of defect in condensed milk (0.5 mark)

3- Verification means (0.5 mark)

4- is the cause of lumpy defect in skimmed milk powder (0.5 mark)

5- process improves the wetting and sinking properties of milk powder (0.5 mark).

6- CCP1 during manufacturing of evaporated milk is (0.5 mark)

7- Differentiate (in a table) between Salmonella typhimurium and C. perfringens food poisoning cases. (2.5mark)



III- Third question (6 marks/one mark each)
(ILOs: a4,a6,a7,a8,b1 to b4)

Write brief account on the following:-

1. Gummy body of ice cream.
2. Soft curd yoghurt.
3. Impacts of mastitis on milk constituents.
4. Mechanisms by which probiotics protect human against intestinal diseases.
5. Kieler's test
6. Acidity of oil and fat.

IV- Fourth question (6 marks) (ILOs:a4,a6,a7,b1 to b4)

A) Match column (A) with its correspondence in column (B). (4marks / 0.5 each):

(A)	(B)
1- Cream produced from raw whole milk by gravity method has	a- this stage determine color, appearance and spread ability of butter.
2-Working of butter grains is essential as	b- low risk from food borne pathogens.
3- Cooling after pasteurization is very important to	c- nondairy product used as cheap substitute for butter.
4- Anhydrous milk fat is	d- inhibit the growth of remaining microorganisms.
5- Formaldehyde and potassium permanganate are used to	e- this stage breaks the fat emulsion and induces clumping of fat globules.
6- Churning is basic process in butter manufacture as	f- bad quality and high acidity.
7- Milk should be clarified before sterilization to	g- remove debris in milk which cause brownish sediment.
8- Butter made from pasteurized cream under good hygienic condition has	h- combat the presence of molds in storage room.
	i- water free butter fat used for processing of ice cream, chocolate and fatty sweets.

B) Discuss each of the following

(2 marks / one each)

- 1) The alternative processes for heat treatment that used to inactivate microorganisms.
- 2) Microbiologically, butter is a cooperatively stable product.

With best wishes Staff members of food control department

Head of department

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