



I- First question (9 marks)

A)- Please answer the following (4 marks/2 each)

- 1-How to keep milk free from antimicrobials?
- 2-Mention the sources of contamination of milk with PCBs?

B)-Mark (✓) for true and (X) for wrong, then correct the wrong statement
(5 marks/one each)

- 1- Direct microscopic method used for counting bacteria in milk products.
- 2-Stormy fermentation test is used for detection of aerobic spore former in milk.
- 3-Clot on boiling test gives positive results at acidity% 0.21%.
- 4-Resazurin reduction test depend on time of reduction.
- 5- Brownish or greenish sediment of milk indicate fecal pollution, while yellowish and mucoid sediment indicate acute mastitis.

II- Second question (5 marks)

Comment on the followings:-

- 1- Effect of storage conditions on microbial growth. (2 marks)
- 2- Sources of milk contamination with bovine tuberculosis, brucellosis, FMD and typhoid fever organisms. (2 marks)
- 3- Lactoperoxidase system of milk. (1 marks)

III- Third question (6 marks)

A)-Complete the following sentences:- (3 marks/ 1.5 each)

1. Surface active agents are defined asand classified into.....⁽¹⁾ ,⁽²⁾ ,⁽³⁾ and⁽⁴⁾
2. Action of fat globule membrane⁽¹⁾ ,⁽²⁾ ,⁽³⁾ ,⁽⁴⁾ and⁽⁵⁾

B-In table compare between :- (3 marks/ 1.5 each)

- 1- Lactose intolerance and Milk allergy.
- 2- Raw milk and Homogenized milk.

IV- Fourth question (5 marks/one each)

Give reason(s) of the following:-

- a- White color of milk.
- b- Farm water must be periodically tested.
- c- Amphoteric reaction of milk.
- d- Milk utensils should be pre-cleaned with cold water.
- e- Determination of casein number.

Best wishes

Head of food control department

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