



Please answer the following:-

I- First question (7 marks) (ILOs: A1, A3, A4& B1-B4)

A)-Define the following:- (2.5 marks)

- 1- Residues, contaminants and Maximum Residue limits of both? (1.5 marks)
- 2- Heat stability of milk and how you can measure it? (One mark)

B)-Mention:- (3 marks / 1.5 each)

- 1-The hazardous impact of pesticide residues to milk consumers and how we can avoid them?
- 2-The different types of milk proteins and the difference between them?

C)-How Polychlorinated biphenyl's and Dioxins reach to dairy animals? and how milk and dairy products consumers can avoid them? (1.5 marks)

II- Second question (6 marks) (ILOs: A1, A2, A4, A5& B1-B4)

A)- Discuss in details about: (4 marks)

- 1- Classification of microorganisms according to their cardinal temperature. (1.5 marks)
- 2- Significance of the presence of Staphylococci and Enterococci indicators in milk. (1 mark)
- 3- Prevention and control of brucellosis in milk (1.5 marks)

B)- Fill in the spaces: (2 marks / 0.5 mark each)

- 1- causes septic sore throat in human and mastitis in animals.
- 2- method is used for control of tuberculosis in countries of high incidence.
- 3- The limiting value of water activity for the growth of any micro-organism in food is about, and below this value the spoilage of food is not microbiological.
- 4- Criteria which determine the value of an indicator in food are and

Prof. Dr. Azza M.M. Deeb



III- Third question (6 marks) (ILOs: A1, A2 ,A4, A5&B1-B4)

A)- Enumerate the undesirable fermentations that may be occur in milk and how to differentiate between sweet curdling and acid curdling of milk? (2 marks)

B)- Mark (✓) for true and (X) for wrong, then correct the wrong statement (4 marks /one each)

- 1- Direct microscopic method is used for counting bacteria in milk products.
- 2- Resazurin reduction test depend on time of reduction.
- 3- Counting thermoduric bacteria after incubation of plate at 55°C for 2 days.
- 4-Milk of good keeping quality stand for 5-6 days at 25.5°C.

IV- Fourth question (6 marks /one mark each) (A1, A2, A3, A4&B1-B4)

What is the significance of each of the following?

- 1- Milk straining and milk cooling in the farm.
- 2- Using diluted organic acids and Quaternaries (Q.A.C) for dairy equipment.
- 3- Freezing point measuring and Casein number calculation.
- 4- Disposing, examination of fore milk before milking and teat end dipping in sanitizing solution after milking.
- 5- Illegality of adding chemical preservatives to milk.
- 6- Maintaining high quality water supply at dairy farm (mention tests required for detection of water quality).

With best wishes

Staff members of food control department

Head of department

Prof. Dr. Azza M.M. Deeb