



**I- First question (6 marks)**

**Write about:-**

**(2marks each)**

- 1- Fat globule membranes.
- 2- Differences between lactose intolerance and milk allergy.
- 3- How to prevent access of residues of antimicrobial veterinary drugs and pesticides into bovine milk?

**II- Second question (7 marks)**

**A) Discuss in details the following:-**

**(5 marks/ 2.5 each)**

- 1- Salmonella causing milk borne diseases.
- 2- Optimum conditions for mold growth in milk.

**B) Indicate True (T) or False (F) and correct the false one:**

**(2 marks/0.5 each)**

- 1- Thermodurics can multiply in cold conditions.
- 2- ABR test is used for detection of Brucella organism in milk.
- 3- *Staph. aureus* is a good indicator of faecal pollution of milk.
- 4- Cholera is a disease of animal origin transmitted through milk.

**III- Third question (6 marks)**

**Please answer the following:-**

**(2 marks each)**

- 1- Describe the basic steps in cleaning and sanitizing milk utensils and equipments.
- 2- Role of dust and water for producing clean milk.
- 3- Methods for detection of dry matter in milk.

**VI- Fourth question (6 marks)**

**Complete the following sentences:-**

**(one mark each)**

- 1- Factors affecting keeping quality period....., .....  
..... and.....
- 2- Presence of large amount of raductase enzyme in milk indicate .....  
or.....
- 3- Milk with yellowish and mucoid sediment indicates..... While brownish  
or greenish sediment indicate.....
- 4- Stormy fermentation test used to detect.....in milk and their  
presence indicated by..... and .....
- 5- Ropiness is defined as..... and  
controlled by ..... and.....
- 6- Microorganisms responsible for souring and gas fermentation.....,  
.....and.....

**Best wishes**

**Head of food control department**

**Prof. Dr. Azza M.M. Deeb**