



Please answer the following:-

I- First question (7 marks)

A) Write about :-

(4marks/one mark each)

1. Fatty acids of milk.
2. Sources of veterinary drugs residues in milk.
3. Whey proteins.
4. Sources of Polychlorinated Dibenzodioxins (PCDD) in milk and their public health impacts?

B) Give reason(s) of the following:-

(3marks/ one mark each)

1. Milk is a unique food.
2. Some peoples feel gastroenteritis after drinking milk.
3. Milking at short intervals is better than long intervals from the point of milk yield.

II- Second question (6 marks/ 0.5 mark each)

A) Fill in the spaces:-

1. *Salmonella schottmulleri* is the causative organism of..... milk borne disease.
2. Halophilic bacteria are able to grow in the presence of high concentrations of
3. Characteristics of nisin as a natural preservative of milk are, and
4. Presence of *S. aureus* in milk indicates and
5. The selective media for isolation of *Brucella abortus* from milk are.....and.....
6. Enterococci are a better indicator of sanitary quality of milk than *E. coli* especially in..... and.....

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

1. FMD is one of the greatest milk borne disease killers worldwide.
2. Ostertag's method is applied for control of TB in countries where the infection is less than 10%.
3. *Brucella melitenensis* is the most virulent species of brucella that infect human.
4. Infectious Hepatitis (C) is milk borne disease of human origin.
5. A sour milk or cream shows a heavier growth of molds on its surface than will a sweet product of the same age.
6. The indicator organism should be present as a natural contaminant of the material being analyzed.



III- Third question (6 marks/ 2 marks each)

Write on the following:-

1. Methylene blue reduction test.
2. Stormy fermentation test.
3. Gassy fermentation.

IV- Fourth question (6 marks/ one mark each)

Choose the correct answer:-

1. Casein number of normal milk ranges from 77 to 80 while in mastitis it
a) increase b) decrease c) doubled d) not change e) both a and c
2. Effective teat disinfection following every milking is essential to
a) reduce new mastitis infection b) improve raw milk quality
c) prevent droplet infection d) both a and b
3.are sanitizers used in dairy industry as they lower the thermoduric count, less sensitive to presence of organic matter, non-corrosive and colorless.
a) Soda ash b) Iodophores c) Quaternaries (Q.A.C)
d) Hypochloites e) Wetting agents
4. Adding preservatives to milk is illegal and may lead to economic loss due to
a) coast of mastitis treatment b) prevent ripening process in dairy manufacture
c) milk unfit for heat treatment d) culling of diseased dairy animal
5. Bipolar detergent have.....that attach grease molecule.
a) hydrophilic end b) hydrophobic end
c) rinsing property d) sanitizing effect
6. Amphoteric reaction of milk means.....
a) milk has both acidic and alkaline reaction b) mastitis milk (alkaline pH)
c) milk adulterated by partial skimming d) souring of milk (increased acidity)

***With best wishes
Staff members of food control department***

Head of department

Prof. Dr. Azza M.M. Deeb