FREQUENTLY ASKED QUESTIONS

1. What is the average composition of milk?

Ans) Milk contains on an average of 87 percent water, 3.9 percent fat, 4.9 percent lactose, 3.5 percent protein and 0.7 percent minerals, vitamins, and other minor constituents.

2. According to PFA (1976) what is the %age of milk fat and SNF in buffalo milk?

Ans) Buffalo milk contains 9 percent milk solids not fat and 6 percent of milk fat.

3. Name different minor constituents of milk.

Ans) The minor constituents of milk are phospholipids, sterols, vitamins, enzymes, and pigments.

4. Define clostrum?

Ans) After parturition for the first few days mammary glands secrete a fluid known as collostrum which has a strong odour, a bitter taste, a slight reddish yellow colour and contains a high percentage of immunoglobins. It is rich source of all milk constituents except lactose, potassium and pantothenic acid.

5. Name different types of proteins present in milk.

Ans) Milk contains two types of proteins namely caseins (80%) and whey (20%).

6. Name different whey proteins present in milk?

Ans) Whey protein comprises about 20% of milk protein and is composed predominantly of beta-lactoglobulin and alpha-lactalbumin. The other whey proteins include serum albumin, immunoglobulins (IgA, IgG, IgM), protease peptones, lactoferrin and transferrin.

7. Name different mineral constituents present in milk.

Ans) The mineral matter/ salt constituents of milk include potassium, sodium, magnesium, calcium, phosphate, citrate, chloride, sulphate and bicarbonate.

8. Name different phospholipids present in milk.

Ans) In milk there are three types of phospholipids viz. lecithin, cephalin and sphingomylin.

9. What is the role of carotene in milk?

Ans) Carotene is fat soluble and responsible for the yellow colour of milk, cream, butter, ghee and other fat rich dairy products. Carotene acts as an antioxidant and as a pre-cursor of vitamin A. One molecule of β -carotene yields two molecules of vitamin A.

10.Name different enzymes present in milk?

Ans) The various enzymes present in milk are analases, lipases, phosphatases, proteases, Peroxidases and Catalases

11.Name different vitamins present in milk.

Ans) Milk contains two types of vitamins namely fat soluble vitamins viz. A, D, E and K; and water soluble vitamins of the B Complex group (thiamine or B_1 , riboflavin or B_2 , pantothenic acid, niacin, pyridoxine, or B_6 , biotin, B_{12} , folic acid, etc.) and vitamin C (ascorbic acid).

12.In what form does fat exist in milk?

Ans) Fat exists in milk in small round globules held in suspension and forming an emulsion with the other constituents.

13. What nutrients does milk provide?

Ans) Milk is a major source of dietary energy, high-quality protein and fat. It can make a significant contribution to meeting the required nutrient intakes of calcium, magnesium, selenium, riboflavin, vitamin B12 and pantothenic acid. Milk from some animal species can also be a source of zinc and vitamins A, C, D and B6. Bioavailability of some nutrients in milk, for example calcium, is high compared with that in other foods in the diet.

14.Besides cows, what animals produce milk that is suitable for human consumption?

Ans) A range of animal species produce milk that is consumed. The nutrient composition of milk from minor dairy animals i.e. animals other than cows,

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buffalo, goats and sheep, has to date received little research attention. This is unfortunate as some of the minor animals, such as donkey, reindeer, yak, Bactrian camel, moose, musk ox, llama, alpaca and mithun, are underutilized. In other words, the production of milk from these minor species has the potential to contribute to food security, health and nutrition and income generation.

15. Should milk and dairy be included in the diet?

Ans) Milk and dairy products can be important in diversifying the diet. They are nutrient dense and provide high quality protein and micronutrients in an easily absorbed form that can benefit both nutritionally vulnerable people and healthy people when consumed in appropriate amounts. It is important to recognise that a combination of food is necessary for a healthy diet and that milk and dairy products are not the only sources of essential nutrients.