

(6 pages)

Reg. No. :

Code No. : 10748 E Sub. Code : ESCH 21

B.Sc. (CBCS) DEGREE EXAMINATION,
APRIL 2024.

Second Semester

Chemistry

Skill Enhancement Course — DAIRY CHEMISTRY

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. _____ contain no disulphide bonds.
(a) Casein (b) Micelle
(c) Globulin (d) Albumin
2. The composition of protein in milk is _____.
(a) 4.6% (b) 0.65%
(c) 87.3% (d) 3.25%

8. Milk is deficient in vitamin _____.
(a) A (b) D
(c) C (d) None of these
9. In the spray-drying of milk products, _____ is in an amorphous state.
(a) sucrose (b) glucose
(c) fructose (d) lactose
10. The water ratio ranges from _____ which comes from the milk or other ingredients.
(a) 53% to 63% (b) 55% to 64%
(c) 43% to 53% (d) 45% to 54%

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Write the composition of milk.
Or
(b) Write a note on milk lipids.
12. (a) Explain HTST.
Or
(b) Explain about the batch pasteurization.

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3. Pasteurized milk can be kept fresh for _____ days or more in refrigerator.
(a) 6 (b) 7
(c) 5 (d) 10
4. _____ methods are widely used to pasteurize milk.
(a) three (b) two
(c) one (d) none of these
5. _____ litres of whole milk are needed to produce 1 kg of butter.
(a) 5 (b) 6
(c) 25 (d) 20
6. The _____ number is important in the analysis of butter fat.
(a) Reichert-Meissel (b) Reichert Mark
(c) Reichert John (d) None of these
7. The term _____ milk is commonly used when referring to full cream unsweetened condensed milk.
(a) condensed (b) skimmed
(c) evaporated (d) sweetened

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13. (a) Explain about the adulterants present in ghee.
Or
(b) Explain :
(i) Desi butter
(ii) Salted butter
14. (a) Explain the following terms :
(i) Toned milk
(ii) Flavoured milk
Or
(b) Discuss about reconstituted milk.
15. (a) What are Bulgarious and acidophilous milk?
Or
(b) Briefly explain about the emulsifiers in the ice cream.

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Give an account of the minerals present in milk.

Or

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- (b) Explain in detail the factors that affect the composition of milk.
17. (a) Explain the following :
(i) Bottle pasteurization
(ii) HTST
- Or
- (b) Discuss about the types of pasteurization.
18. (a) Write short notes on :
(i) Theory of churning
(ii) Classification of cream
- Or
- (b) Explain about :
(i) Rancidity
(ii) Synergists
19. (a) Explain the following terms :
(i) Standardized milk
(ii) Humanized milk
- Or

- (b) Write about the composition and nutritive value of condensed milk.
20. (a) Discuss in detail the need and the process of making milk powder.
- Or
- (b) Explain about the stabilizers in ice cream.
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