

BRS/IMRS Sem. 6 Examination

Dairy Management

May-2025

Time : 2-30 Hours]

[Max. Marks : 70

Instructions:

- The figures on right hand side indicate marks.
- Use of calculator is **NOT** allowed.

Question 1

- i. Write a note on the following: [7 marks]
- CIP in dairy industry
 - SNF & Fat in milk
- ii. What is tetra pack? How does it helps in maintaining the quality of dairy products? [7 marks]

OR

- i. What do you understand by Bypass protein supplements for animals? [7 marks]
- ii. Explain Bypass fat supplements for animals. [7 marks]

Question 2

- i. Explain D value, Z value, and F value in milk sterilization. [7 marks]
- ii. Explain the process of pasteurization of milk. [7 marks]

OR

- i. Elaborate on types of milk products of AMUL. Why do you think the branding and advertisement of Amul is unique? [7 marks]
- ii. Write note on the following: [7 marks]
- Malted milk food
 - Fermented milk products

Question 3

- i. Why milk is chilled at 4°C, when bacterial growth factor is just 1 at 0°C? What is the impact of this 4°C at shelf life of milk? [7 marks]
- ii. Explain UHT processing in dairy industry. [7 marks]

OR

- i. Explain the difference between sterilization and UHT of milk. [7 marks]
- ii. Why is chilling milk essential within stipulated time after production? What can we infer from this for the dairy industry infrastructure preparation? [7 marks]

Question 4

- i. Explain Smart Dairying. [7 marks]

- ii. What are the impacts of climate change on livestock? How can this be minimized?
[7 marks]

OR

- i. What are the new scopes of value addition in dairy industry? What are challenges involved in them? [7 marks]
- ii. How is government helping people associated in dairy fields through schemes like “National Programme for Dairy Development”? [7 marks]

Question 5

[14 marks]

Attempt any seven out of twelve.

5. Attempt any fourteen out of sixteen questions mentioned below:

A. Which of the following aspect of milk decides its market price

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|------------------|----------------------|
| i. Solid content | ii. Color |
| iii. Fat content | iv. All of the above |

B. What kind of relation exists between temperature and D value

- | | |
|-----------------------------------|-------------------------------------|
| i. They are directly proportional | ii. They are inversely proportional |
| iii. No relation exist | iv. Cannot say |

C. Objective of pasteurization is

- | | |
|---|---|
| i. To reduce shelf life | ii. To increase enzyme activity |
| iii. To kill most of the bacteria which are disease causing | iv. To increase fat content of the milk |

D. Which of the following processes is given major importance in dairy farm management?

- | | |
|--|---------------------------------------|
| v. Increase in yield and quality of milk | vi. Increase in size of cattle |
| vii. Increase in the number of cows | viii. Increase in number of buffaloes |

E. A milk product plant can be located preferably in a village location due to the following reasons:

- i. Proximity to the raw material source
- ii. Availability of cheap land and labor
- iii. Both i. & ii
- iv. None of the above

F. Father of milk revolution in India is

- i. Herbert Boyer
- ii. Verghese Kurien
- iii. M.S. Swaminathan
- iv. Charles Darwin

- G. Which of the following is not a dairy product?
- i. Custard
 - ii. Ice cream
 - iii. Fermented milk
 - iv. Coconut milk
- H. Gerber test is used to determine-
- i. Protein percent in milk
 - ii. Fat percent in milk
 - iii. Acidity of milk
 - iv. SNF % in milk
- I. The Acronym RGM stands for
- J. What is browning reaction in milk?
- K. Give two examples of macro nutrient of milk?
- L. Give two examples of micro nutrient of milk?
- M. Which technology helps in keeping the ice creams shelf-life up to 365 days in chillers?
- N. What do you understand by milk sterilization?
- O. Give two examples of heat desiccated products of milk.
- P. Index organism for assessing thermal sterility in food is

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