

11
Optional Paper
Dairy Processing & Technology
Paper - I

Time : 3 Hours

Maximum Marks : 200

IMPORTANT NOTES / महत्वपूर्ण निर्देश

- (A) Please fill up the OMR Sheet of this Question Answer Booklet properly before answering. Please also see the directions printed on the obverse before filling it.
प्रश्नोत्तर पुस्तिका में प्रश्न हल करने से पूर्व उसके संलग्न ओ.एम.आर. पत्रक को भली प्रकार भर लें। उसे भरने हेतु उसके पृष्ठ भाग पर मुद्रित निर्देशों का अध्ययन कर लें।
- (B) The question paper has been divided into three Parts - A, B and C. The number of questions to be attempted and their marks are indicated in each part.
प्रश्न-पत्र अ, ब और स तीन भागों में विभाजित है। प्रत्येक भाग में से किये जाने वाले प्रश्नों की संख्या और उनके अंक उस भाग में अंकित किये गये हैं।
- (C) Attempt answers in English.
उत्तर अंग्रेजी भाषा में दीजिये।
- (D) Answers to all the questions of each part should be written continuously in the script and should not be mixed with those of other parts. In the event of candidate writing answers to a question in a part different to the one to which the question belongs, the question will not be assessed by the examiner.
उत्तर पुस्तिका में प्रत्येक भाग के समस्त प्रश्नों के उत्तर क्रमवार देने चाहिये तथा एक भाग में दूसरे भाग के उत्तर नहीं मिलाने चाहिये। एक भाग में दूसरे भाग के प्रश्न के उत्तर लिखे जाने पर ऐसे प्रश्न को जाँचा नहीं जा सकता है।
- (E) The candidates should not write the answers beyond the limit of words prescribed in parts A, B and C failing this the marks can be deducted.
अभ्यर्थियों को भाग अ, ब और स में अपने उत्तर निर्धारित शब्दों की सीमा से अधिक नहीं लिखने चाहिये। इसका उल्लंघन करने पर अंक काटे जा सकते हैं।
- (F) **In case the candidate makes any identification mark i.e. Roll No./Name/Telephone No./Mobile No. or any other marking either outside or inside the answer book, it would be treated as resorting to using unfair means. In such a case his candidature shall be rejected for the entire examination by the Commission.**
अभ्यर्थी द्वारा उत्तर पुस्तिका के अंदर अथवा बाहर पहचान चिह्न यथा - रोल नम्बर / नाम / मोबाईल नम्बर / टेलीफोन नम्बर लिखे जाने या अन्य कोई निशान इत्यादि अंकित किये जाने को अनुचित साधन मान जायेगा। आयोग द्वारा ऐसा पाये जाने पर अभ्यर्थी की सम्पूर्ण परीक्षा में अभ्यर्थिता रद्द कर दी जायेगी।





Note : Attempt all the **twenty** questions. Each question carries **2** marks. Answer should not exceed **15** words.

1 Define Homogenization of milk.

2 What is the time temperature requirment of L.T.L.T. pasteurization of milk?

3 What is the legal requirement of fat and MSNF in toned milk?



4 Give the specific gravity of milk.

5 Give the full form of UHT milk.

6 Which force is used to separate the fat from milk using cream separator?



7 Spell C.O.D.

8 Give the energy values of milk constituents.

9 State the percentage of moisture in butter as per BIS.



10 State the importance of alcohol test in selection of milk.

11 Give the name of the index organism for milk pasteurization.

12 Define the term sanitization.



13 What do you mean by antioxidant?

14 What is the maximum overrun from butter?

15 Define the term 'permeate' in membrane processing.



16 Give the name of the seeding material used in lactose Crystallization.

17 Give the type of emulsion present in milk.

18 What are the different types of whey available to dairy Industry?



19 What do you mean by sterilized milk?

20 What is the normal pH of fresh milk?



PART – B

Marks : 60

Note : Attempt all the **twelve** questions. Each question carries **5** marks. Answer should not exceed **50** words.

21 List the different types of cream separators used in dairy industry.

22 State the factors affecting the composition of milk.



23 Differentiate between Ultrafiltration and Reverse Osmosis.

Lined area for writing the answer to question 23.

24 Explain the importance of forewarming of milk in preparation of condensed milk.

Lined area for writing the answer to question 24.



25 List the steps involved in manufacture of paneer.

26 Explain the significance of CIP (Cleaning-in-place) in dairy industry.



27 Explain the significance of salting in cheddar cheese making.

Lined area for writing the answer to question 27.

28 Give the BIS standard for Plain Icecream.

Lined area for writing the answer to question 28.



29 Classify the different types of indigenous dairy products with the example.

30 Define processed cheese.



31 Define Recombined milk with its merits.

32 Explain the importance of stabilizer and emulsifier in ice cream making.



Note : Attempt any 5 questions. Each question carries 20 marks. Answer should not exceed 200 words.

33 Discuss the method for the manufacturing of condensed milk along with flow diagram and all technical details.





- 34 Discuss the importance of following in ice cream making.
- (a) Pasteurization of mix
 - (b) Freezing of mix
 - (c) Homogenization of mix
 - (d) Ageing of mix.



35 Discuss the fundamental rules for sensory evaluation of dairy/food products.







- 37 State the causes and prevention of control for following defects in Cheddar cheese.
- (a) Crumbly body in cheese (b) bitterness in cheese
(c) Weak body in cheese (d) Mouldy surface in cheddar cheese.





38 Discuss the factors influencing the churanability of cream and body of butter.







SPACE FOR ROUGH WORK / रफ कार्य के लिए जगह



SPACE FOR ROUGH WORK / रफ कार्य के लिए जगह



SPACE FOR ROUGH WORK / रफ कार्य के लिए जगह

SEAL

