

11
Optional Paper
Dairy Processing & Technology
Paper – II

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 चिन्ह 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।



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

1 List the tests used for microbiological grading of milk.

2 Give main compositional difference between normal milk and colostrum.

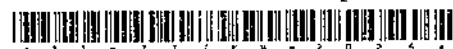
3 Name at least 2 tests for detection of mastitis milk.



4 As per FSSAI, 2006; how much total urea content in milk is permitted?

5 Name the pathogenic bacteria to be tested in pasteurized milk as per FSSAI, 2006 requirements.

6 Why shrikhand has higher shelf-life than dahi from which it is made?



7 Why evaporated milk spoils earlier than Sweetened Condensed Milk after opening the can?

8 Name two techniques that facilitate transformation in bacteria.

9 Define "Thermal Death Time (TDT)".



10 Define "Bacteriocin".

11 Give full names for "IDA" and "IDF" in relation to Dairy industry with names of their Head Quarters.

12 Milk of which animal is used for making traditional Koumiss? Why?



13 Name atleast 2 natural antimicrobial compounds present in raw milk.

14 Define "thermoduric bacteria".

15 Name the preservative (recommended as per PFA) used for keeping milk samples for chemical analysis.



16 Name permitted colours which can be added in butter as per AGMARK.

17 Name class-II preservatives permitted in cheese under BIS.

18 Write different grades of Ghee as per AGMARK and the basis of these gradations.



19 Give reasons for development of lumpiness in skim milk powder.

20 Name the most reliable test to detect added water in milk.



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

21 To what extent the milk intended for fermented milk manufacture should be heated? Why?

22 “Stahpylococcus aureus” is most important pathogen in khoa” - Justify the statement.



23 What are prebiotics, prebitoics and synbiotics?

24 What is rennet, microbial rennet and recombinant rennet?



25 Suggest measures to control molds in butter.

26 Explain oxidative rancidity in ghee and suggest suitable methods to prevent the same.



27 Explain lactose crystallization and its significance in ice cream.

28 Name the test used to check the efficiency of pasteurization and explain its basic principle.



29 Explain the mechanism of rennet action on casein and enlist the factors affecting the same.

30 Explain measures to control sandy texture defect in sweetened condensed milk.



31 List different chemical sanitizers used in dairy plants and their advantages and limitations.

32 "There is no true substitute of mother's milk" - Justify the statement.











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SPACE FOR ROUGH WORK / रफ कार्य के लिए जगह



SPACE FOR ROUGH WORK / रफ कार्य के लिए जगह



