

UG	

Name:		••••••	Roll No.:
Branch:			Signature of Invigilator:
Semester:	Vlth	Date: 25/04/	2022 (MORNING)

Subject with Code: FT308 DAIRY TECHNOLOGY

Section A (30)	Section B (20)	Total Marks (50)
	(30)	(30) (20)

INSTRUCTION TO CANDIDATE

- The booklet (question paper cum answer sheet) consists of two sections. <u>First section consists of MCQs of 30 marks</u>. Candidates may mark the correct answer in the space provided / may also write answers in the answer sheet provided. <u>The Second section of question paper consists of subjective questions of 20 marks</u>. The candidates may write the answers for these questions in the answer sheets provided with the question booklet.
- 2. <u>The booklet will be distributed to the candidates before 05 minutes of the examination</u>. Candidates should write their roll no. in each page of the booklet.
- 3. Place the Student ID card, Registration Slip and No Dues Clearance (if applicable) on your desk. <u>All the entries on the cover page must be filled at the specified space.</u>
- 4. <u>Carrying or using of mobile phone / any electronic gadgets (except regular scientific calculator)/chits are strictly</u> <u>prohibited inside the examination hall</u> as it comes under the category of <u>unfair means</u>.
- 5. <u>No candidate should be allowed to enter the examination hall later than 10 minutes after the commencement of examination.</u> Candidates are not allowed to go out of the examination hall/room during the first 30 minutes and <u>last 10 minutes of the examination.</u>
- 6. Write on both side of the leaf and use pens with same ink.
- 7. <u>The medium of examination is English</u>. Answer book written in language other than English is liable to be rejected.
- 8. All attached sheets such as graph papers, drawing sheets etc. should be properly folded to the size of the answer book and tagged with the answer book by the candidate at least 05 minutes before the end of examination.
- 9. The door of examination hall will be closed 10 minutes before the end of examination. <u>Do not leave the examination</u> <u>hall until the invigilators instruct you to do so.</u>
- 10. Always maintain the highest level of integrity. <u>Remember you are a BITian.</u>
- 11. Candidates need to submit the question paper cum answer sheets before leaving the examination hall.

BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI

END SEM EXAM

<u>SEM</u>: - VI

FULL MARKS: - 50 marks

SUBJECT: - Dairy Technology

<u>DATE</u>: - 25/4/22

<u>TIME</u>: - 10 am – 12 pm

Subject Code: - FT 308

<u>SECTION – A</u>

Students must attempt all question. Each question contains 1 mark. Total of 30 marks.

<u> PART – A</u>

Fill in the blanks: -

- 1. Tone milk refers to milk obtained by addition was water and _____ milk powder to whole milk.
 - a) Fat
 - b) Skim
 - c) Both
 - d) None of them
- 2. Milk contains _____ vitamins.
 - a) Water soluble
 - b) Fat soluble
 - c) Water and fat soluble
 - d) None of them
- 3. The major constituents of milk are _____.
 - a) TS & SNF
 - b) Protein Lactose minerals
 - c) Vitamins & enzymes
 - d) All of them
- 4. Homogenization implies _____ treatment to break fat globules to smaller size.
 - a) Mechanical
 - b) Physical
 - c) Chemical
 - d) None of them
- 5. UHT processing dies not cause reduction in biological value of _____.
 - a) Proteins
 - b) Vitamins
 - c) Fat

- d) Minerals
- 6. Standardization can be done by practically skimming the _____ in the milk with a cream separator.
 - a) Vitamins
 - b) Fats
 - c) Proteins
 - d) None of them
- 7. Malted milk food is a product containing _____, milk extract and cereal grain flour.
 - a) Milk solid
 - b) Milk flavor
 - c) Milk solid and milk flavor
 - d) None of them
- 8. Milk is a perfect medium for growth of _____ and growth of pathogenic organism can cause diseases.
 - a) Micro organisms
 - b) Macro organisms
 - c) Both micro and macro-organisms
 - d) None of them
- 9. The average size of fat globules in buffalo milk is _____ than in cow milk.
 - a) Smaller
 - b) Larger
 - c) Thicker
 - d) None of them

10. Ghee means pure heat clarified _____ derived solely from milk.

- a) Proteins
- b) Minerals
- c) Fats
- d) All of them
- 11. Butter is principally composed of _____.
 - a) Milk fat
 - b) Moisture
 - c) Salt and curd
 - d) All of them
- 12. The fermented milk is the product obtained by souring of _____ by use of starter.
 - a) Milk
 - b) Ice cream
 - c) Butter

- d) None of them
- 13. Chemical qualities of milk affect the cheese quality fall into _____.
 - a) Quality that inhibits the starter growth
 - b) Quality that affects coagulation
 - c) Both a) and b)
 - d) None of them
- 14. Microbial Rennet is the large number of microorganisms are known to produce milk _____.
 - a) Clotting enzymes
 - b) In fat
 - c) In vitamins
 - d) In minerals
- 15. Proteolysis is the most important and complex of all the events ripening of a _____.
 - a) Cheese
 - b) Exogenesis lipase
 - c) Fatty acid esters
 - d) None of them
- 16. Plasmin contributes to _____ in cheese, especially in high cooked varieties in which chymosin is extensively or totally inactivated.
 - a) Proteolysis
 - b) Lipolysis
 - c) Water activity
 - d) Fat
- 17. On which principal reason, chemical is used in sanitation procedures _____.
 - a) To change soil so as chemical to softer, disperse or dissolve it.
 - b) To destroy the microorganisms
 - c) Both a) and b)
 - d) None of them
- 18. Chemical sanitizers are _____.
 - a) Chlorine
 - b) Iodine
 - c) Chlorine dioxide
 - d) All of them
- 19. Preharvest means _____.
 - a) Apply crop rotation to reduce pressure.
 - b) Remove crop residues from field
 - c) Apply fertilization in conformity to crop demean, to avoid plant stress
 - d) All of them

- 20. Main objective of PFA are _____.
 - a) To protect the public from poisonous and harmful foods
 - b) To prevent the sale of substandard food
 - c) To protect the interests of the consumers by eliminating fraudulent practices
 - d) All of them
- 21. Khoa is a product of _____.
 - a) Only cow milk
 - b) Only buffalo milk
 - c) Cow and buffalo milk
 - d) None of them
- 22. The product which is rich in butter fat prepared by boiling and cooling cow or buffalo milk is called .
 - a) Khoa
 - b) Malai
 - c) Paneer
 - d) Cream
- 23. Kulfi is _____.
 - a) Frozen milk product
 - b) Condensed milk product
 - c) Milk powder product
 - d) None of them
- 24. ISO is a _____.
 - a) Non-governmental organization
 - b) Governmental organization
 - c) None of them
 - d) All of them

<u> PART – B</u>

Which one is the correct statement: -

25.

- a) The fatty acid composition of milk is constant throughout the cow's lactation cycle.
- b) The fatty acid composition of milk is not constant throughout the cow's lactation cycle.
- c) Milk fat cannot be degraded by enzyme action, exposure to light and oxidation.
- d) The color of fat does not depend upon its content and varies with the species, breed, and feed of the animal.
- 26. Cream can be defined as.
 - a) The protein of milk, which is rich in milk fat.
 - b) It is a yellowish component of milk.
 - c) When milk fat is concentrated into a fraction of the original milk.

d) All of them.

27.

- a) Sterilized milk has not a rich creamy appearance and a distinct cooked flavor.
- b) Sterilized milk has a rich creamy appearance and a distinct cooked flavor.
- c) Sterilized milk has not a normal creamy appearance and a distinct cooked flavor.
- d) Sterilized milk has a normal creamy appearance and a distinct cooked flavor.

28.

- a) Evaporated milk is sweetened milk requires less processing to preserve since the added sugar inhibits bacterial growth.
- b) Evaporated milk is not sweetened milk requires less processing to preserve since the added sugar inhibits bacterial growth.
- c) Evaporated milk is sweetened milk, does not require processing to preserve since the added sugar inhibits bacterial growth.
- d) None of them.

29.

- a) Milk fat contains approximately 65 % saturated, 30 % monosaturated and 5 % polysaturated acids.
- b) Milk facts are made up of fatty acid molecules attached to glycerol.
- c) Fatty acids may be saturated.
- d) All of them.

30.

- a) Sterilization of milk is aimed at killing micro-organisms present, including bacterial spores in the milk.
- b) Sterilization of milk is not aimed at killing micro-organisms present, including bacterial spores in the milk.
- c) Sterilized milk which is not heated to a temperature of 10 degree Celsius.
- d) None of them.

<u>SECTION – B</u>

Attempt any Five. Each question contains 4 marks. Total of 20 marks.

1.	a. What is the three tier Amul model? b. Write a short on India's dairy cooperative movement.	2 marks. 2 marks.
2.	a. What are the methods for determining the freezing point of milk? b. Discuss the principle of cream separation.	2 marks. 2 marks.
3.	a. Explain about the defects in sweetened condensed milk. b. What are flavor defects?	2 marks. 2 marks.

4.	a. What do you mean by weaning foods?b. Discuss about the pathogens in evaporated milk.	2 marks. 2 marks.
5.	a. Write a short note on status of lipids in milk. b. What are the various types of fat rich dairy products?	2 marks. 2 marks.
6.	a. What is the role of starter cheese in cheese making?b. Discuss about the use of elevated temperatures ripening.	2 marks. 2 marks.
7.	a. Discuss the PFA standards for milk products. b. What are the packaging application in food industry?	2 marks. 2 marks.















