

MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : V (New)	Term : I	Academic Year : 2012-13
Course No. : ASDS 353	Title : Technology of Milk and Milk Products	
Credits : 2(1+1)		
Day & Date : Monday, 29.10.2012	Time : 14.00 to 16.00	Total Marks : 40

- Note :**
1. Solve **ANY EIGHT** questions from **SECTION "A"**.
 2. All questions from **SECTION "B"** are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Classify the milk products on the basis of method of production with suitable examples and explain coagulated milk products.
- Q.2 Enlist various physico-chemical properties of milk and describe in short about acidity of milk.
- Q.3 Write in detail about the physico-chemical changes occur in milk on conversion into khoa.
- Q.4 Explain important properties of packaging material and suggest packaging material for liquid milk, milk powder and peda.
- Q.5 Write short notes.
- 1) Milk production and utilization pattern in India
 - 2) Homogenization of milk
- Q.6 Define pasteurization. Enlist the methods of pasteurization and explain in details about the HTST method of pasteurization.
- Q.7 Write the chemical composition of Rabri and give the importance of fermented dairy products.
- Q.8 Draw the flow diagram of manufacture of Shrikhand and Chhana.
- Q.9 Classify the various plate form test of milk to be taken during procurement of milk and write it brief on COB test of milk.
- Q.10 Explain the factors affecting chemical composition of milk.

SECTION "B"

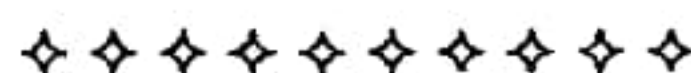
- Q.11 Do as directed.
- 1) Write the name of the stabilizer commonly used in Ice cream preparation.
 - 2) Give the fat percent in pindi type of khoa.
 - 3) Give the name of preservatives generally used in milk products.
 - 4) Give the name of chemical used for coagulation of milk.
- Q.12 Write True or False.
- 1) As per the PFA rule, standardized milk contains 4.0 % fat.
 - 2) The freezing point of the buffalo milk is 31.01° F.
 - 3) The process of forcing and subdividing the fat globules is known as hybridization.
 - 4) BIS standards are related to milk and milk products.

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MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: V (New)	Term	: I	Academic Year	: 2011-12
Course No.	: ASDS 353	Title	: Technology of Milk and Milk Products		
Credits	: 2(1+1)				
Day & Date	: Saturday, 24.09.2011	Time	: 14.00 to 16.00	Total Marks	: 40

- Note :
1. Solve **ANY EIGHT** questions from **SECTION "A"**.
 2. All questions from **SECTION "B"** are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

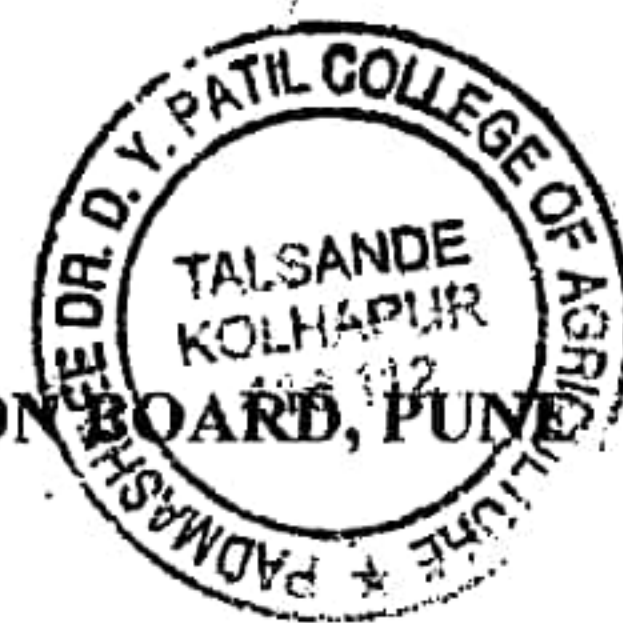
- Q.1 What are the different constituents present in milk and describe milk proteins?
- Q.2 Explain in brief the present status of Dairy Industry in India.
- Q.3 What is pasteurization? Write its purpose and enlist methods of pasteurization.
- Q.4 Define milk. Describe in detail the nutritional importance of milk fat.
- Q.5 Enlist the physico-chemical properties of milk and describe any two properties.
- Q.6 Discuss the factors responsible for variation in composition of milk.
- Q.7 Classify the indigenous milk products with examples and write in brief about the preparation of Paneer.
- Q.8 Define packaging. Give the functions of packaging and enlist the modern packaging systems for milk products.
- Q.9 Enlist the various standards formulated for various milk and milk products. Describe any one.
- Q.10 Write short notes on (Any Two)
- 1) Bio-preservation
 - 2) Homogenization
 - 3) Whey

SECTION "B"

- Q.11 Do as directed.
- 1) Write the full form of CAC.
 - 2) Mention fat percent of toned milk.
 - 3) Write the standard plate count for pasteurized milk according to BIS standards.
 - 4) Give the names of three types of Khoa.
- Q.12 Match the pairs.
- | "A" | "B" |
|-----------------------------|-------------------------|
| 1) <i>Lassi</i> | a) 4.5% fat |
| 2) <i>Ropiness</i> | b) Beverage |
| 3) <i>Standardized milk</i> | c) 80% fat |
| 4) <i>Butter</i> | d) Long threads of milk |
| | e) 25 % fat |



MAHARASHTRA AGRICULTURAL UNIVERSITIES EXAMINATION BOARD, PUNE
SEMESTER END EXAMINATION



B.Sc. (Agri.)

Semester : V (New)	Term : I	Academic Year : 2010-11
Course No. : ASDS 353	Title : Technology of Milk and Milk Products	
Credits : 2(1+1)		
Day & Date : Friday, 22.10.2010	Time : 14.00 to 16.00	Total Marks : 40

- Note :**
1. Solve ANY FIVE questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Enlist the factors affecting the composition of milk and explain any two of them.
- Q.2 Enumerate physico-chemical properties of milk and write in detail on specific gravity and acidity of milk.
- Q.3 What do you mean by pasteurization of milk? Describe HIST method of pasteurization with its advantages and disadvantages.
- Q.4 Classify indigenous milk products with examples. Describe the method of dahi preparation.
- Q.5 Enlist the various dairy by-products and write in short about their utilization in dairy industry.
- Q.6 State the importance of packaging and enlist the types of packaging material used for milk and milk products.
- Q.7 Write short notes on (Any Two)
 - 1) Standardization of milk
 - 2) Preservation of milk
 - 3) Nutritional importance of milk

SECTION "B"

- Q.8 Fill in the blank with appropriate word from the bracket.
 - 1) Milk is practically free from colostrums after _____ days. (5 / 10 / 15)
 - 2) Addition of sugar in milk _____ the specific gravity.
(increases / decreases / equalibrates)
 - 3) _____ bacteria can grow at temperature above 50 °C.
(Psychotropic / Thermophilic / Mesophilic)
 - 4) The normal freezing point of milk is _____ °C. (0.00 / -0.530 / +0.570).
 - 5) Milk is rich source of _____. (Iron / Copper / Calcium).
- 9 State True or False.
 - 1) Foremilk contains higher fat percentage than strippings.
 - 2) Skim milk has less specific gravity than whole milk.
 - 3) Average titratable acidity of fresh cow milk is 14 per cent.

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- 4) The optimum growth rate of microorganisms will be found at temperatures between 40°C to 60°C.
- 5) Homogenization prevents separation of fat into cream layer during storage.

Q.10 Match the pairs.



"A"	"B"
1) Starch in milk	a) Ice-cream
2) Table butter	b) 1.5 per cent fat
3) Overrun	c) Iodine test
4) Double toned milk	d) 20-25 per cent fat
5) Table cream	e) 80 per cent fat

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SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester	: V (New)	Term	: I	Academic Year	: 2013-14
Course No.	: ASDS 353	Title	: Technology of Milk and Milk Products		
Credits	: 2(1+1)				
Day & Date	: Friday, 25.10.2013	Time	: 14.00 to 16.00	Total Marks	: 40

- Note :**
1. Solve **ANY EIGHT** questions from **SECTION "A"**.
 2. All questions from **SECTION "B"** are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.

SECTION "A"

- Q.1 Give the classification of milk constituents and explain about milk fat.
- Q.2 Explain in detail about HTST method of pasteurization.
- Q.3 Narrate the positive frame of dairy industry in India.
- Q.4 Give classification of milk products with suitable examples.
- Q.5 Enlist important methods of preservation of milk and milk products. Explain Chemical method of preservation.
- Q.6 Define Homogenization. Write the merits and demerits of homogenization.
- Q.7 Enlist physico-chemical properties of milk. Describe acidity and pH.
- Q.8 Give the names of government agencies for the regulation of standards of traditional dairy products. Describe about PFA.
- Q.9 Discuss in detail the nutritional importance of milk.
- Q.10 Define packaging. Write in detail about modified atmosphere packaging.

SECTION "B"

- Q.11 Define the following terms.

- 1) Milk
- 2) Pasteurization
- 3) AGMARK
- 4) Specific gravity

- Q.12 State True or False.

- 1) PFA is a compulsory legislation.
- 2) Casein is known as principal milk protein.
- 3) According to PFA rule Toned milk should contain minimum 1.5 per cent fat and 9.0 per cent SNF.
- 4) Khoa is a heat acid coagulated product.

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SEMESTER END EXAMINATION

B.Sc. (Agri.)

Semester : V (New)	Term : I	Academic Year : 2015-16
Course No. : ASDS 353	Title : Technology of Milk and Milk Products	
Credits : 2(1+1)		
Day & Date : Monday, 19.10.2015	Time : 14.00 to 16.00	Total Marks : 40

- Note :**
1. Solve ANY EIGHT questions from SECTION "A".
 2. All questions from SECTION "B" are compulsory.
 3. All questions carry equal marks.
 4. Draw neat diagrams wherever necessary.



SECTION "A"

- Q.1 Define milk and describe in detail about fat and protein of milk.
- Q.2 What do you mean by preservation? Write the need of preservation of milk and describe in short the chemical method of preservation for milk and milk products.
- Q.3 Give flow chart for preparation of peda and shrikhand.
- Q.4 Enlist the various factors affecting on yield and composition of milk and explain the effect of feed fodder and species on yield and composition of milk.
- Q.5 Enlist the methods of cooling and describe surface cooling and can immersion method.
- Q.6 Define packaging. Enlist various functions of packaging and comment on glass as packaging material for milk and milk products.
- Q.7 Write short notes on.
 - 1) Nutritional importance of lactose
 - 2) Export Inspection council
- Q.8 Enlist the various physico-chemical properties of milk and describe specific gravity and acidity of milk.
- Q.9 What is pasteurization? Enlist the methods of pasteurization and explain HTST method of pasteurization.
- Q.10 Differentiate between
 - 1) Kulfi and Ice cream
 - 2) Channa and Paneer

SECTION "B"

- Q.11 Do as directed.
 - 1) Give full form of BIS
 - 2) Write current milk production of India
 - 3) Mention fat percentage in standardized milk
 - 4) NDDB stands for
- Q.12 Fill in the blanks.
 - 1) As per standard in India pasteurized milk should not have more than _____ SPC/ml.
 - 2) Approximately whey contain _____ per cent of total solid.
 - 3) _____ coagulant is generally used in the preparation of paneer
 - 4) By-product obtained during manufacturing of butter is _____.

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