

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
SEMESTER END THEORY EXAMINATION, B. TECH. (D.T.) DEGREE COURSE 2018-19

Semester	: III (V DEAN)	Academic Year	: 2018-2019
Course No.	: DT- 303	Course Title	: Fat Rich Dairy Products
Credits	: 2+1=3	Total Marks	: 50
Day & Date	: Tuesday, 08/01/2019	Time	: 15.00 to 17.00 Hrs

- Note :**
- 1) All questions from **Section 'A'** are compulsory.
 - 2) Solve **Any Three** questions from **Section 'B'**.
 - 3) Draw neat and well labeled diagram wherever necessary.

SECTION –‘A’

Q. 1 A) Choose the most appropriate answer from the options given below. (05)

- i) Coarse grain texture of ghee preferred in
 - a) Western region of country
 - b) Northern region of country
 - c) South region of country
 - d) Eastern region of country
- ii) Acidity of cream should be reduced to per cent before churning.
 - a) 0.35-0.38
 - b) 0.25-0.30
 - c) 0.13 to 0.14
 - d) 0.009
- iii) Growth of proteolytic bacteria in cream, specifically results in
 - a) Rancid flavor
 - b) Bitter flavor
 - c) Acid flavor
 - d) Cheesy flavor
- vi) With increase in fat content in the cream, its specific gravity is while its viscosity is.....
 - a) Decrease, Increase
 - b) Increase, Decrease
 - c) Increase, Increase
 - d) Increase, Decrease
- v) As per BIS standard the milk fat content in table butter is than white butter
 - a) Lower
 - b) Equal
 - c) Higher
 - d) Can't say

B) Answer in one line. (05)

- i) Who proposed the Phase reversal theory?
- ii) What is the cause for Flat flavour defects in butter?
- iii) What is the effect of over working on body and texture of butter?
- iv) What is mean by Saponification?
- v) State the names of commonly used neutralizer for neutralization of cream.

Q. 2 A) Define the following. (05)

- i) Butter
- ii) Churning
- iii) Ghee clarifier
- iv) Spread
- v) Scum

- B) Give reasons for the following. (05)
- i) Spread, in general, has low storage stability.
 - ii) Cow ghee is yellow in colour.
 - iii) Buffalo milk separate faster than cow milk.
 - iv) Whipping cream is rarely homogenized.
 - v) Ghee is highly calorific food among all dairy products.

SECTION –‘B’

- Q. 3. A) Give the flow chart for preparation of ghee by creamery method. (05)
B) Write short note on preservation of ghee. (05)
- Q. 4. A) Discuss the factor affecting fat losses in butter. (05)
B) Write in short the various steps in preparation of table butter. (05)
- Q. 5. A) Explain the developments in cream separator. (03)
B) Enlist various type of cream and write the flow diagram for plastic cream. (03)
C) Enlist the parts of cream separator machine in ascending order and write the role of these parts in short. (04)
- Q. 6. A) Enlist the ingredients and their role in manufacture of low-fat spread. (03)
B) Write short note on margarine. (03)
C) Enlist the method of butter oil manufacture and describe decantation method with merit and demerit. (04)
- Q. 7. Discuss the status of fat rich dairy product in India. (10)
