

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
SEMESTER END THEORY EXAMINATION, B.TECH. (D.T.) DEGREE COURSE 2017-18

Semester	: III (V DEAN)	Academic Year	: 2017-2018
Course No.	: DT- 303	Course Title	: Fat Rich Dairy Products
Credits	: 2+1=3	Total Marks	: 50
Day & Date	: Tuesday, 02.01.2018	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. (10)
- i) Slightly acidic and mild curdy flavor of ghee preference in
 - a) Western region of country
 - b) Northern region of country
 - c) South region of country
 - d) Eastern region of country
 - ii) is added to improve the whipping ability of cream.
 - a) Sodium hydroxide
 - b) Glycerol
 - c) Citric acid
 - d) Mono-glycerides
 - iii) Commonly used lime neutralizer for neutralization of cream
 - a) Sodium hydroxide
 - b) Magnesium hydroxide
 - c) Caustic soda
 - d) All of these
 - iv) Use of sour milk for cream preparation results in
 - a) Rancid flavor
 - b) Bitter flavor
 - c) Acid flavor
 - d) Cheese flavor
 - v) Low churning temperature of cream results in
 - a) Prolong churning period
 - b) Decrease fat loss
 - c) Firm body of butter
 - d) All of these
 - vi) The temp of commercial cold storage of butter ranges from
 - a) 0 to -1° F
 - b) -10 to -20° F
 - c) -23 to -29° F
 - d) -33 to -39° F
 - vii) Foam theory Proposed by
 - a) Fisher and Hooker's
 - b) Rahn's
 - c) Kings
 - d) All of these
 - viii) Flat flavor defects in butter may due to.....
 - a) Excessive washing of butter
 - b) Low diacetyl content in butter
 - c) Both a and b
 - d) None of these
 - ix) Overworking of butter results in.....
 - a) Crumbly body and texture
 - b) Leaky body and texture
 - c) Both a) and b)
 - d) None of these
 - x) Saponification value, polenske value and iodine value of ghee is.....
 - a) 29.4, 1.41, 230
 - b) 230, 29.4, 1.41
 - c) 29.4, 230, 1.41
 - d) 230, 1.41, 29.4

(P.T.O.)

- Q. 2 A) Define the following. (05)
- i) Butter
 - ii) Churning
 - iii) Ghee residue
 - iv) Dairy spread
 - v) Cooking butter
- B) Give reasons for the following. (05)
- i) Buffalo milk separate faster than cow milk.
 - ii) Whipping cream is rarely homogenized.
 - iii) Ghee is highly calorific food among all dairy products.
 - iv) High humidity during storage of butter is avoided.
 - v) Ghee is mostly packed in lack tin coated container.

SECTION - 'B'

- Q. 3. A) Enlist the methods of ghee making. Explain any one. (05)
- B) Comments on common adulterants found in ghee. (05)
- Q. 4 A) Describe factor affecting on skimming efficiency. (05)
- B) Explain the fractionation of milk fat. (05)
- Q. 5 A) Write differences between gravity and centrifugal method of cream separation. (03)
- B) Which are the factor affect on fat contain in cream. (03)
- C) Enlist and differentiate neutralizer use in cream. (04)
- Q. 6 A) What is anhydrous milk fat? (03)
- B) Write short note on whipped cream. (03)
- C) Enlist the method of butter manufacture and describe decantation method with merit and demerit. (04)
- Q. 7 Discuss future prospectus and challenges before ghee industry in India. (10)
