

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
SEMESTER END THEORY EXAMINATION, B.Tech. (D.T.) Degree Course 2017-18

Semester	: IV (V Dean)	Academic Year	: 2017-2018
Course No.	: DC-405	Course Title	: Chemistry of Dairy Products
Credits	2+1=3	Total Marks	: 50
Day & Date	: Wednesday, 13.06.2018	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 labelled diagram wherever necessary.

SECTION – 'A'

Q. 1 A) Answer in one word / line. (05)

- i) Why buffalo milk is not preferred for channa making?
- ii) Significance of Baudin test in Ghee.
- iii) What is rennet?
- iv) State the iodine value of milk fat.
- v) State the meaning of oxidative rancidity.

B) Choose the most appropriate answer from the options given below: (05)

- i) Optimum pH of milk for paneer making
 - a) 5.35
 - b) 4.6
 - c) 5.8
 - d) 4.9
- ii) Ghee is rich in
 - a) Short chain fatty acid
 - b) Medium chain fatty acid
 - c) Long chain fatty acid
 - d) None of these
- iii) Vitamin D is important for
 - a) Bones
 - b) Liver
 - c) Heart
 - d) Lungs
- iv) Phosphatidylethanolamine is
 - a) Phospholipids
 - b) Vitamin
 - c) Hormone
 - d) None of these
- v) Law enforcing agency is
 - a) TUV
 - b) FSSAI
 - c) NABL
 - d) None of these

Q. 2 A) State True or False, If false rewrite the statement after making necessary corrections. (05)

- i) BR reading for milk fat is important.
- ii) Brown colour of basundi is due to melanoidin.
- iii) Auto-oxidation of milk fat is desirable.
- iv) Lecithin is important amino acid.
- v) Sandiness in ice-cream is due to proteins.

B) Define the following. (05)

- i) Polenske value.
- ii) Antioxidant
- iii) Denaturation
- iv) Fermentation
- v) Neutralization of cream

(P.T.O.)

SECTION –‘B’

- Q. 3 A) Define churning. Discuss the theories of churning of cream. (05)
B) Describe the flavor compounds of Ghee. (05)
- Q. 4 A) What is hydrolytic and oxidative rancidity? Explain. (05)
B) Discuss the physico-chemical changes occur during manufacture of Khoa. (05)
- Q. 5 A) What are the various processes induced changes in milk during cooling and homogenization process? Explain. (03)
B) Describe heat stability of milk. (03)
C) Write an explanatory note on physico-chemical and functional properties of dried milk. (04)
- Q. 6 A) Discuss the role of stabilizer and emulsifiers in ice-creams. (03)
B) Explain the physico-chemical changes during manufacture of Ghee. (03)
C) Discuss in brief the physico-chemical changes occur during manufacture of fermented milk. (04)
- Q. 7 Discuss the various physico-chemical changes occurring during cheese manufacture. (10)
