

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
SEMESTER END THEORY EXAMINATION, B. Tech. Dairy Technology 2019-20

Semester	: III (V Dean)	Academic Year	: 2019-2020
Course No.	: DT-302	Course Title	: Traditional Indian Dairy Products
Credits	: 2+1-3	Total Marks	: 50
Day & Date	: Wednesday, 08.01.2020	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) Choose the most appropriate answer from the options given below. (05)

- i) *Khoa* is a type of product
 - a) Heat desiccated
 - b) Acid coagulated
 - c) Heat and acid coagulated
 - d) Fermented
- ii) The amount of rice to be added in *Kheer* manufacturing is
 - a) 10-15 %
 - b) 15-20 %
 - c) 1-2 %
 - d) 2.5-5 %
- iii) The traditional dairy product characterized by sweetened milk concentrate with clotted cream
 - a) *Kheer*
 - b) *Maska*
 - c) *Rabri*
 - d) *Kalakand*
- iv) As per FSSAI standards, *Paneer* shall have minimum % fat on dry matter basis
 - a) 45
 - b) 50
 - c) 37.5
 - d) 48
- v) As per FSSAI, coliform counts in *Chhana* shall not be more than
 - a) 90 / gm
 - b) 150 / gm
 - c) 50,000 / gm
 - d) 90 / 100 gm

B) Enlist any two defects found in the following products. (05)

- i) *Khoa*
- ii) *Gulabjamun*
- iii) *Chhana*
- iv) *Dahi*
- v) *Rasogolla*

Q. 2 A) Give reasons for the following. (05)

- i) For *chhana* based sweets manufacture, cow milk is preferred over buffalo milk.
- ii) The coarse texture defect occurs in *khoa*.
- iii) During manufacture of *Peda*, after molding, it requires to be stored in refrigerated condition.
- iv) The milk is heated to temperatures higher than pasteurization for *Paneer* making.
- v) Hard surface in *Rasogolla*.

- B) State whether True or False. If false, rewrite the statement after making necessary corrections in the underlined word's. (05)
- i) In *khoa* making, the heat coagulation of milk proteins begins at 2.5-2.8 time concentration.
 - ii) *Dahi* has slightly higher percentage of fat and lower percentage of SNF than the milk from which it is prepared.
 - iii) *Kara-Pak* is a type of Kalakand.
 - iv) As per FSSAI standards, cane sugar is not allowed to be added in Dahi/Curd.
 - v) A soft, succulent ball of chhana soaked, stored and served in sugar syrup is known as Gulab Jamun.

SECTION –‘B’

- Q. 3. A) Write strength and weakness of traditional Indian dairy product sector. (05)
B) Give the classification of Traditional Indian dairy product. (05)
- Q. 4. A) Name different varieties of *Khoa*. Give their end use and approximate total solids and fat percentage. (05)
B) Write a short note on packaging and shelf life of *Peda*. (05)
- Q. 5. A) Write desirable quality attributes of *Kheer*. (03)
B) Write recent innovations in *Basundi* manufacture. (03)
C) Give the details of factors affecting the quality of *Khoa*. (04)
- Q. 6. A) Write about different types of *Sandesh*. (03)
B) Give the product description of *Misti Dahi*. (03)
C) Write the procedure for the *Rasogolla* manufacture. (04)
- Q. 7. Write a short note on *Paneer* with its quality standards, manufacture, shelf life enhancement and packaging aspects. (10)
