

MAHARASHTRA ANIMAL AND FISHERY SCIENCES UNIVERSITY, NAGPUR
SEMESTER END THEORY EXAMINATION, B.Tech. (D.T.)

Semester	: III (V Dean)	Academic Year	: 2021-2022
Course No.	: BT-302	Course Title	: Traditional Indian Dairy Products
Credits	: (2+1=3)	Total Marks	: 50
Day & Date	: Wednesday, 06/04/2022	Time	: 02 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) Heating of milk causes changes in proteins resulting in the production of
 - a) Carbon dioxide
 - b) Oxygen
 - c) Casein
 - d) Sulphydryl compounds
- ii) Irradiation of *khoa* with U.V. rays will preserve the *khoa* up to
 - a) 25 days
 - b) 10 days
 - c) 5 days
 - d) 40 days
- iii) Pantua can be prepared using
 - a) Channa
 - b) Khoa
 - c) Paneer
 - d) Both a and b
- iv) Incorporation of 0.15% sorbic acid in *burfi* and packaging in polyethylene pouches enhances the shelf life of *burfi* upto
 - a) 90 days
 - b) 15 days
 - c) 2 months
 - d) 1 month
- v) The proportion of free syrup in a gulabjamun pack shall not exceed % of the declared net mass.
 - a) 50
 - b) 60
 - c) 20
 - d) 80

B) Explain or define the following terms. (05)

- i) Khoa
- ii) Chhana-murki
- iii) Dharwad peda
- iv) Danedar Khoa
- v) Thirattupal

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

- i) An inclined scraped surface heat exchange for continuous *khoa* making is much preferred method of *khoa* production.
- ii) The recovery of milk solids and yield of *chhana* is influenced by the heat treatment given to milk prior to acidification.
- iii) For industrial production of *shrikhand*, fresh skim milk is used as a raw material.
- iv) Traditional method has limitations for *Khoa* making.
- v) Buffalo milk is preferred over cow milk for *khoa* making.

- B) State whether True or False. If false, rewrite the statement after making necessary corrections in the underlined words. (05)
- i) Rasogolla popularly known as king of Bengal sweets was developed by K.C. Das.
 - ii) The average shelf life of kheer is 2-3 days at $37^{\circ}\text{C} \pm 1^{\circ}\text{C}$.
 - iii) Citric acid at 1-2 percent levels is commonly used to induce good granule formation during kalakand preparation.
 - iv) Peda samples packed in pouches with oxygen scavenger exhibits a shelf life of 2 months at 20°C and 6 months at 37°C .
 - v) Milk cake will have 15-20 days shelf life at room temperature.

SECTION –‘B’

- Q. 3 A) Explain with a schematic diagram, the mechanized *Channa* making unit. (05)
B) Discuss in brief traditional method for preparation of *Chakka* along with flow chart. (05)
- Q. 4 A) Describe the manufacturing of *Misti Dahi*. Describe any three factors affecting its quality. (05)
B) Define Panner. Describe the factors affecting quality and yield of *Paneer*. (05)
- Q. 5 A) Give the BIS standards for *Rasogolla*. (03)
B) Enlist the defects in *Khoa*, their causes and prevention. (03)
C) Describe in brief innovations adopted for manufacture of *Khoa*. (04)
- Q. 6 A) Give the requirements for sugar syrup in case of packed *Gulabjamun*. (03)
B) Describe any two methods for improving the shelf life of *Khoa*. (03)
C) Explain the changes occurring in milk during manufacturing of *Rabri*. (04)
- Q. 7 Classify the traditional indigenous dairy products and write about bio preservatives used in TIDPs. (10)
