

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

Semester	: III (New Syllabus)	Academic Year	: 2017-2018
Course No.	: DT-302	Course Title	: Traditional Dairy Products
Credits	: 2+1=3	Total Marks	: 50
Day & Date	: Wednesday, 03.01.2018	Time	: 15.00 to 17.00 Hrs.

- Note :**
- 1) All questions from **Section 'A'** are compulsory.
 - 2) Solve **Any Five** questions from **Section 'B'**.
 - 3) All questions carry equal marks.
 - 4) 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) Fat content (Min) of *Danedar khoa* as per FSSR is
 - a) 37 %
 - b) 25 %
 - c) 37 % on DMB
 - d) 25 % on DMB
- ii) Insufficient flavor development in *Dahi* is due to
 - a) Low citrate and Diacetyl content
 - b) High Citrate and low Diacetyl content
 - c) High lactate and high Diacetyl content
 - d) None of the above
- iii) Sucrose % by weight (Max) in *Mawa Burfi* as per BIS is
 - a) 40
 - b) 48
 - c) 44
 - d) 42
- iv) Moisture content (% Max) of *Paneer* as per FSSR is
 - a) 70
 - b) 65
 - c) 60
 - d) 55
- v) Cause for high syneresis in *Dahi*
 - a) Insufficient heat treatment to the milk
 - b) Too low milk SNF
 - c) Agitation/disturbances during fermentation
 - d) All of these

B) Do as directed. (05)

- i) List actions which lead to changes in physico-chemical characteristics of milk during *Khoa* making.
- ii) Preservative permitted in *Paneer* as per FSSR
- iii) List common flavour defects in *Misti Dahi*.
- iv) Give (% Min, on DM basis), Total Solids and Milk Protein content for skim milk *Chakka* as per FSSR.
- v) Reason for not using U.V. radiation rays in extending shelf life of *Khoa*

(P.T.O.)

- Q. 2 A) Give the reasons for the following in one line. (05)
- In manufacture of fermented milk products, milk is heated at 85°C for several minutes.
 - In manufacture of *Danedar Khoa* citric acid is added.
 - Longer shelf life of *Dharwad peda* than *Doodh peda*.
 - Buffalo milk *Paneer* has higher yield.
 - Slow evaporation is desirable for manufacture of *Rabri*.
- B) State whether True or False. If false, rewrite the statement after making necessary corrections in underlined word. (05)
- Shelf life of *Khoa* is in decreasing order, LDPE < Food grade HDPE < Laminates.
 - Low acid strength (0.5%) results in very soft body and smooth texture suitable for Sandesh making.
 - The common pathogenic organism found in *Khoa* and *Khoa* based sweets is heat stable, coagulase positive Staphylococci.
 - Nolen Gurer Sandesh is prepared from date jaggary.
 - Pantooa is a *Chhana* and *Khoa* based product similar to *Gulabjamun*.

SECTION – 'B'

- Q. 3. List different methods for manufacture of *Khoa* by mechanized method. Describe the most popular mechanized method of production with its advantages and limitations. (06)
- Q. 4 Discuss the present status and future of traditional dairy products in India. (06)
- Q. 5 Describe in detail factors affecting yield and quality of *Chhana*. (06)
- Q. 6
- Define *Dahi* as per FSSR. (02)
 - Describe use of Ultra filtration process in *Paneer* manufacturing. (02)
 - Draw the flow diagram for manufacture of *Gulabjamun* with all technical details. (02)
- Q. 7
- Describe innovations in manufacture of *Basundi*. (03)
 - Describe different methods of preservation of *Paneer*. (03)
- Q. 8
- Give the flow diagram for manufacture of *Rasogolla* with all technical details. (02)
 - Give the traditional method of *Misti dahi* preparation (02)
 - Role of active packaging in indigenous milk products. (02)
- Q. 9
- List *Chhana* and *Khoa* based sweets. Describe characteristics of any one sweet. (02)
 - Describe commercial method for production of *Shrikhand* with all technical details. (04)
