

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

Semester	: III (V Dean)	Academic Year	: 2019-2020
Course No.	: DT-301	Course Title	: Market Milk
Credits	: 3+1=4	Total Marks	: 50
Day & Date	: Tuesday, 07.01.2020	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) The most practical way of payment of milk and discourages adulteration of milk is by payment according to
 - a) Weight
 - b) Fat content
 - c) Use of milk
 - d) Premium
- ii) To remove feed and volatile flavors in milk this process is employed
 - a) Uperization
 - b) Vaccination
 - c) Pasteurization
 - d) Thermization
- iii) The reference enzyme for pasteurization is
 - a) Lipase
 - b) Alkaline phosphates
 - c) Oxidase
 - d) Reductase
- iv) The major component of clarifier slime is
 - a) Fat
 - b) Lactose
 - c) Protein
 - d) None of these
- v) The commonly used continuous cooling of milk system in dairy Industry is
 - a) Surface cooler
 - b) Plate cooler
 - c) Tubular cooler
 - d) Vat cooler

B) Define the following. (05)

- i) Q_{10} factor
- ii) Sediment test
- iii) Bactofugation
- iv) Clarification
- v) Pasteurization

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

- i) Age Gelation.
- ii) Thermisation of milk.
- iii) Normally the milk storage capacity of a dairy is equal to one day's intake.
- iv) The reason keeping *tuberculosis bacterium* as indicator organism for pasteurization.
- v) The temperature of homogenization of milk is 55-60°C.

(P.T.O.)

- B) State whether True or False, If False, rewrite the statement after making necessary corrections in underline words. (05)
- i) In HTST pasteurizer, the unpasteurized milk return back to balance tank through homogenizer.
 - ii) The sudden cooling of sterilized milk bottles obtained from the sterilizer leads to breakage.
 - iii) The NDDB suggested the pricing policy for milk on the basis of weight of milk.
 - iv) Cream separation is the process of forcing the milk through a pressure piston pump with the object of sub-dividing the fat globules.
 - v) The cream line reduced with increase in time temperature combination of heating.

SECTION – 'B'

- Q. 3. A) UHT processing of milk by indirect method. (05)
B) Give the flow diagram of HTST pasteurization of milk. (05)
- Q. 4 Write about the following. (05)
A) Give a detail account on the preparation of sterilized milk. (05)
B) Methods for cooling of milk. (05)
- Q. 5 A) Defects in market milk. (03)
B) Theories of homogenization. (03)
C) Give preparation of Toned, Recombined and Reconstituted milk. (04)
- Q. 6 A) Preservation of milk by LP system. (03)
B) Distribution systems of milk. (03)
C) Explain in detail aseptic packaging of UHT milk. (04)
- Q. 7 Explain about the various milk reception operations involved at raw milk reception dock? (10)
