

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

Semester	: IV (V Dean)	Academic Year	: 2021-2022
Course No.	: DT-405	Course Title	: Cheese Technology
Credits	: (3+2=5)	Total Marks	: 50
Day & Date	: Thursday, 01/09/2022	Time	: 02.30 Hrs.

- Note :**
- 1) All questions from **Section 'A'** are compulsory.
 - 2) Solve **Any Three** questions from **Section 'B'**.
 - 3) Draw neat and well labeled diagram wherever necessary.

SECTION – 'A'

Q. 1 A) Choose the most appropriate answer from the options given below. (05)

- i) The following cheese is used for toppings of pizza
 - a) Cottage
 - b) Mozzarella
 - c) Parmesan
 - d) Camembert
- ii) The active fraction of rennet is
 - a) Pepsin
 - b) Trypsin
 - c) Rennin
 - d) None of these
- iii) The desirable property for an enzyme to be substitute for Rennet is
 - a) Coagulating activity
 - b) Yield of cheese
 - c) Syneresis
 - d) All of these
- iv) The example for cheese made from Sheep's milk is
 - a) Feta cheese
 - b) Roquefort
 - c) Brie
 - d) Blue veined
- v) The most common cheese variety available in Indian market is
 - a) Cottage
 - b) Processed
 - c) Mozzarella
 - d) Paneer

B) Answer in one line. (05)

- i) What is fat content of medium fat cheese?
- ii) Which cheese is obtained by concentration and coagulation of whey?
- iii) The largest cheese producer's country in the world.
- iv) Which membrane process is used for making soft cheeses?
- v) Give an example for hard cheese variety with eyes.

Q. 2 A) State Whether True or False. If false, correct the statement by correcting (05)
underlined word/s only.

- i) The early bloating of cheese is due to contamination of milk with yeast.
- ii) The adjustment of casein/fat ratio in cheese milk must be 0.68 to 0.70.
- iii) The cooking temperature of cheddar cheese is 42-50°C.
- iv) The culture used in making swiss cheese is Lactobacillus shermanii.
- v) The largest exporter of cheese is France.

(P.T.O)

B) Match the following

(05)

Column 'A'**Column 'B'**

- | | |
|------------------|----------------------|
| i) Unripened | a) Gouda |
| ii) Baked dishes | b) Somerset, England |
| iii) Cheddar | c) Cottage cheese |
| iv) Dutch cheese | d) Chevre |
| v) Goat's milk | e) Mozzarella |

SECTION - 'B'

- Q. 3 A) Define cheese according to FSSAI and give broad classification of cheese on the basis of mode of coagulation. (05)
- B) Write the manufacture of cottage cheese with the help of flow diagram. (05)
- Q. 4 A) Discuss various steps involved in the manufacture of mozzarella cheese using direct acidification method. (05)
- B) What are the merits and demerits of direct acidification method over traditional method and discuss the mechanism of stretching in mozzarella cheese. (05)
- Q. 5 A) What do you understand by blowing of cheese? Discuss different types of blowing problems and suggest preventive measures. (03)
- B) Discuss "eye formation" in Swiss cheese. (03)
- C) Explain the mechanization and automation in cheese industry. (04)
- Q. 6 A) What is accelerated ripening of cheese? (03)
- B) What are the factors affected on accelerated ripening of cheese? (03)
- C) Explain the method of manufacture of processed cheese. (04)
- Q. 7 Write the short notes on: (Any 4) (10)
- Factors affecting rennet action.
 - Cheese additives.
 - Whey cheese.
 - Body and textural defects in cheddar cheese.
 - Recent developments in cheese packaging.
