

Sardar Patel University
MSc. HSc. II Semester NC (old CBCS)
External Theory Examination

CBCS : PH02EFDN01/PH02EFBT01: Advanced Food Processing Technology

Date : 6/12/2012 (Thursday)

Time: 10:30A. M. – 1:30 P.M.

Total Marks: 70

I. Multiple Choice Questions (Select the correct answer)

(8)

1. Churning of "Dahi" made from whole milk gives:
 - a) "Desi" butter
 - b) Dairy butter
 - c) Table butter
 - d) None of the above
2. One molecule of lactose gives:
 - a) One molecule of lactic acid
 - b) Two molecules of lactic acid
 - c) Three molecules of lactic acid
 - d) None of the above
3. "Dahi" prepared at home level shows varying taste from house to house because:
 - a) Milk quality is different
 - b) Starter culture is different
 - c) Both a. & b.
 - d) None of the above
4. Fermented milk preparations are superior to milk because:
 - a) Nutritive value is increased.
 - b) It is more easily absorbed by the human system than milk.
 - c) Both a. & b.
 - d) Neither a. nor b.
5. IQB stands for
 - a) Inspective Quick Blanching
 - b) Individual Quick Blanching
 - c) Insulated Quick Blanching
 - d) None of the above
6. Which one of the following tests indicates the microbial quality of milk:
 - a) Alcohol test
 - b) Total solids
 - c) MBRT
 - d) None of the above
7. Synthetic flavor is added in butter because natural ripening of cream for flavor development is:
 - a) An expensive procedure
 - b) Time – consuming

(P.T.O.)

- c) Both a. & b.
d) None of the above
8. A Heat exchanger with a flat – surfaced plate on the front side fitted with a cooling liquid flowing in pipes at the back side of the plate indicates:
- a) Plate Heat Exchanger
b) Scraped Surface Heat Exchanger
c) Surface Cooler
d) None of the above

(14)

II. Explain briefly (any Seven) :

1. Average energy content of milk.
2. Physical state of milk.
3. Uperisation of milk.
4. Alcohol test for milk.
5. Flavoured milk preparation.
6. Characteistics of a warm milk cream separator.
7. Sweet cream butter.
8. 'khoa' manufacture.
9. Merits of C.I.P.

III. QA is compulsory. Answer any one Q. from B.

- A) Give the definition of market milk. Name the major and minor constituents of milk and name any five factors affecting the composition of milk. What is meant by 'platform tests' of milk? Name any four 'platform tests' of milk. (6)
- B) Describe the following physico – chemical properties of milk:
- i. acidity
 - ii. specific gravity
 - iii. freezing point
- (6)

OR

- B) What is meant by 'standardization' of market milk? Explain Pearson's square method for the same. Calculate how many parts by weight of 35% cream and 2% milk must be mixed to make milk testing 4.5% fat? (6)

IV.

- A) What is flavoured milk? Give the flow chart for it's manufacture and explain the manufacture of any one type of flavoured milk which you have studied. (6)
- B) What is cream? Explain the following terms related to cream:
- i) Market cream
 - ii) Manufacturing cream
 - iii) Table cream
 - iv) Whipping cream
- (6)

OR

IV.

- A) Explain what is meant by butter as per PFA rules. Give the approximate composition of butter. (6)
- B) Explain the following steps under butter manufacture:
- i) Neutralisation of cream
 - ii) Ageing of cream
 - iii) Churning of cream (6)

V.

- A) Explain what is butter oil. Give the nutritive value of the same. (3)
- B) Explain the manufacture of butter oil by the following two methods:
- i) Direct evaporation
 - ii) Centrifugal separation followed by vacuum drying. (9)

OR

V.

- A) What is cheese? Give the approximate composition of cheese. (3)
- B) Explain the following steps in the manufacture of cheese:
- i) Adding starter
 - ii) Rennetting
 - iii) Cooking
 - iv) Salting (9)

VI. Write short notes on (any four) (12)

1. Physico – chemical properties of cream
2. Manufacture of yoghurt.
3. Manufacture of skimmed milk powder
4. Ice cream manufacture.
5. Biscuit manufacture.
6. Isolation of starch from potato.
