

PARUL UNIVERSITY
FACULTY OF AGRICULTURE
B. Tech (Dairy Technology) Winter 2019-20 Examination

Semester: 3

Date: 04/12/2019

Subject Code: 20104207

Time: 10:30 am to 12:30 pm

Subject Name: Fat Rich Dairy Products

Total Marks : 50

Instructions

1. All questions are compulsory.
2. Figure to the right indicate full marks
3. Start new question on new page

Q.1**A) Fill in the blanks (Each of 0.5 marks) (05)**

- iacts as a preservative in butter
- ii The churning temperature of cream is kept in summer than winter
- iii is similar to butter.
- iv cream is normally used in ice-cream and cake.
- v DHA is a fatty acid.
- vi) Diacetyl content in butter should be NMTppm
- vii number indicates unsaturated linkage.
- viii Cooking butter should content not less than% fat
- ix Calcium hydroxide is an example of neutralizer.
- x Theseparating disc has projection on both sides.

B) Multiple Choice Questions (Each of 0.5 Mark) (10)

- i Example of water insoluble stream volatile fatty acid is
 - a) Caproic b) Butyric c) Caprylic d) Stearic
- ii Vitamin A content in Margarine is NLT IU per gram.
 - a) 30 b) 25 c) 20 d) 35
- iii According to AGMARK, FFA content in Special and General grade of ghee.....and.....respectively.
 - a) 1.4% and 2.5% b) 2.5 and 1.4% c) 1.0 and 3.0% d) none of above
- iv The permitted colour in butter is.....
 - a) Annatto b) Riboflavin c) diacetyl d) all of above
- v The fat globule membrane is made of a) protein-phospholipids b) phospholipids-lecithin c) Protein -fat d)None of above
- vi The optimum temperature for granulation of ghee is°C
 - a) 10 b) 20 c) 25 d) 30
- vii The approximate SNF in cream equal to.....
 - a)100-F/10 b) F-100/10 c) 100-F/11) d) F-100/11
- viii The titrable acidity of cream is inversely related to
 - a)% SNF b) % Fat c) % Lactose d) % Minerals
- ix Cotton tract seed has.....RM value due to.....
 - a)Higher, butyric b) Lower, caprylic
 - c) Lower Butyric d) Higher, caprylic
- x The optimum temperature from cream separation.....°C
 - a)20 b) 25 c) 30 d) 45
- xi is a monounsaturated fatty acid.
 - Butyric b) Lauric c) Palmatic d) Oleic
- xii theory is based on foam producing substance required for butter formation.

- a)Rahn b) Fisher and Hooker c) King d) None of above

- xiii Greasy body is occur in butter due to presence of
a)Hard fat b) Soft fat c) Trans fat d) Cis fat
- xiv The fat content in plastic cream is.....
a)40% b) 60% c) 70% d) 80%
- xv What kind of emulsion found in margarine?
a) O/W b) W/O c) O/W/O d) all of above
- xvi Fat content in fat spread is NMT.....and NLT.....
a) 80%, 40% b)40%, 60% c) 16%, 26% d)20%, 40%
- xvii The separation of cream in based on principal of.....difference.
a) Pressure b) Density c) Temperature d) Concentration
- xviii If we have 100 kg milk having 4% fat then how much cream obtained having 40% fat?
a) 5 kg b) 10kg c) 15 kg d) 20 kg
- xix If cream screw moves away from the axis of rotation then get.....
a)Thin cream b) Thick c) none of above d) both a and b
- xx The example of PUFA is.....
a) DHA b) EPA c) pentaoleic d) all of above

Q.2 Define the following(Any five out of seven questions) (05)

- A)** (1) Working
(2) Skimming efficiency
(3) Whipped Cream
(4) Vacreator
(5) Anhydrous buffer fat
(6) Fat spread
(7) Pre-stratification

B) Answer the following (Any five out of seven questions) (05)

- (1) What is table cream? Gives its uses
(2) 250 kg of cream having 50 % fat, then how much quantity of butter made?
(3) What is the feathering of coffee? How can prevent it?
(4) What is 'contimab' ?
(5) Differentiate Butter and Margarine
(6) What is the end point for cream buttery method of ghee preparation?
(7) Enlist the five parts of cream separator.

Q.3 Writes short notes (Any five out of six questions) (10)

- (1) What is butter oil?
(2) Enlist the methods of preservation of cream. Describe any one.
(3) Enlist the types of cream.
(4) Give standard for A. Ghee (AGMARK) B. Cream (FSSAI).
(5) Differentiate gravity and centrifugal cream separation
(6) Margarine

Q.4 Long Question ((Any three out of four questions) (15)

- (1) Explain factor affecting fat loss in skim milk
(2) Explain the procedure for butter preparation with the help of flow diagram.
(3) Discuss the theories of churning.
(4) Describe the various methods of ghee preparation.