

# National Testing Agency

<b>Question Paper Name :</b>	DAIRY SCIENCE 23rd Sep 2020 Shift 1 Set 2
<b>Subject Name :</b>	DAIRY SCIENCE
<b>Creation Date :</b>	2020-09-23 13:49:42
<b>Duration :</b>	120
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<b>Display Marks:</b>	Yes
<b>Share Answer Key With Delivery Engine :</b>	Yes
<b>Actual Answer Key :</b>	Yes

## DAIRY SCIENCE

<b>Group Number :</b>	1
<b>Group Id :</b>	21052919
<b>Group Maximum Duration :</b>	0
<b>Group Minimum Duration :</b>	120
<b>Show Attended Group? :</b>	No
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<b>Break time :</b>	0
<b>Group Marks :</b>	480
<b>Is this Group for Examiner? :</b>	No

## DAIRY SCIENCE

<b>Section Id :</b>	21052923
<b>Section Number :</b>	1
<b>Section type :</b>	Online
<b>Mandatory or Optional :</b>	Mandatory
<b>Number of Questions :</b>	120

<b>Number of Questions to be attempted :</b>	120
<b>Section Marks :</b>	480
<b>Display Number Panel :</b>	Yes
<b>Group All Questions :</b>	Yes
<b>Mark As Answered Required? :</b>	Yes
<b>Sub-Section Number :</b>	1
<b>Sub-Section Id :</b>	21052923
<b>Question Shuffling Allowed :</b>	Yes

**Question Number : 1 Question Id : 2105292221 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The organism commonly associated with infantile diarrhea

1. *Escherichia coli*
2. *Enterobacter aerogenes*
3. *Salmonella typhi*
4. *Clostridium difficile*

**Options :**

- 2105298881. 1
- 2105298882. 2
- 2105298883. 3
- 2105298884. 4

**Question Number : 2 Question Id : 2105292222 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Phage resistant medium for the growth of lactic acid bacteria shall NOT contain

1. Magnesium
2. Manganese
3. Calcium
4. Zinc

**Options :**

- 2105298885. 1
- 2105298886. 2
- 2105298887. 3
- 2105298888. 4

**Question Number : 3 Question Id : 2105292223 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Match **List I** with **List II**

<b>List I</b>	<b>List II</b>
A. LP system	I. Red glycoprotein
B. Xanthine oxidase	II. Mammary gland development
C. Lactoferrin	III. Cow milk
D. Vitamin B12 and folate	IV. Cold sterilization

Choose the correct answer from the options given below:

- 1. A- I, B-IV, C-II, D-III
- 2. A-II, B-III, C-I, D-IV
- 3. A-III, B-II, C-IV, D-I
- 4. A-IV, B-III, C-I, D-II

**Options :**

- 2105298889. 1
- 2105298890. 2
- 2105298891. 3
- 2105298892. 4

**Question Number : 4 Question Id : 2105292224 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Which one of the following reducing substances decreases the antimicrobial activity of lactenin in milk?

1. Glutathione
2. Citrates
3. Lysozymes
4. Vitamin A

**Options :**

- 2105298893. 1
- 2105298894. 2
- 2105298895. 3
- 2105298896. 4

**Question Number : 5 Question Id : 2105292225 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following membrane process can be adopted for cold sterilization of dairy fluids?

1. Reverse osmosis
2. Ultrafiltration
3. Microfiltration
4. Osmosis

**Options :**

- 2105298897. 1
- 2105298898. 2
- 2105298899. 3
- 2105298900. 4

**Question Number : 6 Question Id : 2105292226 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A**

Thermophilic group of microorganisms represent dairy plant contamination rather than farm contamination

**Reason R**

Unhygienic handling practices coupled with poor design and maintenance of equipment is an important cause of contamination of pasteurized milk

In the light of the above statement choose the **most appropriate** answer from the options given below

1. Both **A** and **R** are correct and **R** is a correct explanation of **A**
2. Both **A** and **R** are correct but **R** is NOT the correct explanation of **A**
3. **A** is correct but **R** is not a correct
4. **A** is not correct but **R** is correct

**Options :**

- 2105298901. 1
- 2105298902. 2
- 2105298903. 3
- 2105298904. 4

**Question Number : 7 Question Id : 2105292227 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Intermittent heating is adopted in

1. Vaccination
2. Tyndallization
3. Thermization
4. Stassanization

**Options :**

- 2105298905. 1
- 2105298906. 2
- 2105298907. 3
- 2105298908. 4

**Question Number : 8 Question Id : 2105292228 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Dirty taint defect in cream is due to

1. *Proteus*
2. *Sarcina*
3. *Bacillus*
4. *Escherichia*

**Options :**

- 2105298909. 1
- 2105298910. 2
- 2105298911. 3
- 2105298912. 4

**Question Number : 9 Question Id : 2105292229 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Optimum temperature and period of ripening of cream for butter manufacture is

1. 28 °C for 10-15h
2. 15 °C for 15-16 h
3. 21 °C for 15-16 h
4. 32 °C for 10-15 h

**Options :**

2105298913. 1  
2105298914. 2  
2105298915. 3  
2105298916. 4

**Question Number : 10 Question Id : 2105292230 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Match **List I** with **List II**

List I	List II
A. <i>Pseudomonas nigrifaciens</i>	I. Musty taint
B. <i>Stemphylium</i>	II. Black discolouration in butter
C. <i>Pseudomonas putrefaciens</i>	III. Fungal discolouration in butter
D. <i>Achromobacter</i>	IV. Surface taints in butter

Choose the correct answer from the options given below:

1. A-III, B-IV, C-II, D-I
2. A-IV, B-III, C-I, D-II
3. A-II, B-III, C-IV, D-I
4. A-II, B-I, C-III, D-IV

**Options :**

2105298917. 1  
2105298918. 2  
2105298919. 3



2105298920. 4

**Question Number : 11 Question Id : 2105292231 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The thermophilic count in Canners sugar used in ice cream mix should NOT exceed

1. 150 cfu/10 g
2. 50 cfu/10 g
3. 200 cfu/10 g
4. 250 cfu/10 g

**Options :**

2105298921. 1

2105298922. 2

2105298923. 3

2105298924. 4

**Question Number : 12 Question Id : 2105292232 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The tests employed when egg yolk is used as an emulsifying agent in ice cream :

- A. Total count, coliforms, fungi and Salmonellae
- B. Psychrophiles and yeasts
- C. Lactic acid bacteria, yeasts, hyperthermophiles
- D. Putrefactive anaerobes and  $\beta$ -haemolytic streptococci
- E. Psychrotrophs, yeasts, coliforms and aerobic spore formers

Choose the correct answer from the options given below

- 1. B and E only
- 2. C and E only
- 3. A and D only
- 4. A and C only

**Options :**

- 2105298925. 1
- 2105298926. 2
- 2105298927. 3
- 2105298928. 4

**Question Number : 13 Question Id : 2105292233 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following is the resazurin reduction time in raw milk for production of sweetened condensed milk?

- 1. < Munsell PBP 7/5.5in h
- 2. > Munsell PBP 7/5.5in h
- 3. < Munsell PBP 7/5.5in min
- 4. > Munsell PBP 7/5.5in sec

**Options :**

- 2105298929. 1

2105298930. 2

2105298931. 3

2105298932. 4

**Question Number : 14 Question Id : 2105292234 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Match **List I** with **List II**

List I	List II
A. Bacterial thickening	I. <i>Bacillus subtilis</i>
B. Sweet coagulation	II. <i>Bacillus megaterium</i>
C. Bloat	III. <i>Staphylococcus albus</i>
D. Cheesy odour	IV. <i>Clostridium foetidum</i>

Choose the correct answer from the options given below:

1. A-I, B-II, C-IV, D-III

2. A-II, B-IV, C-I, D-III

3. A-IV, B-I, C-III, D-II

4. A-III, B-I, C-IV, D-II

**Options :**

2105298933. 1

2105298934. 2

2105298935. 3

2105298936. 4

**Question Number : 15 Question Id : 2105292235 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



As per FSSAI, 2011, the maximum permitted total bacterial count for infant milk food is

1. 500 cfu/g
2. 1000 cfu/g
3. 2500 cfu/g
4. 5000 cfu/g

**Options :**

2105298937. 1  
2105298938. 2  
2105298939. 3  
2105298940. 4

**Question Number : 16 Question Id : 2105292236 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The most common contaminant in *dahi* is

1. Coliforms
2. Yeasts
3. Spores
4. Anaerobes

**Options :**

2105298941. 1  
2105298942. 2  
2105298943. 3  
2105298944. 4

**Question Number : 17 Question Id : 2105292237 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Microflora of creamery butter is predominantly

1. Micrococci
2. Coliforms
3. Lactobacilli
4. Yeasts

**Options :**

2105298945. 1  
2105298946. 2  
2105298947. 3  
2105298948. 4

**Question Number : 18 Question Id : 2105292238 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Sweet curdling defect in milk is caused by

1. *Staphylococcus aureus*
2. *Pseudomonas fragi*
3. *Bacillus cereus*
4. *Aspergillus nigrifaciens*

**Options :**

2105298949. 1  
2105298950. 2  
2105298951. 3  
2105298952. 4

**Question Number : 19 Question Id : 2105292239 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Coconut used for ice cream are usually implicated in which of the following infections in humans?

1. Staphylococcal
2. Streptococcal
3. Coliform
4. Salmonellae

**Options :**

- 2105298953. 1
- 2105298954. 2
- 2105298955. 3
- 2105298956. 4

**Question Number : 20 Question Id : 2105292240 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Malty defect in butter is due to the formation of

1. 2- dimethylbutanal
2. 3- methylbutanal
3. Diacetyl
4. Acetoin

**Options :**

- 2105298957. 1
- 2105298958. 2
- 2105298959. 3
- 2105298960. 4

**Question Number : 21 Question Id : 2105292241 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



According to FSSAI, the maximum permissible count (in cfu/g) of *S. aureus* in ice cream is

1. 10
2. 90
3. 100
4. 200

**Options :**

- 2105298961. 1
- 2105298962. 2
- 2105298963. 3
- 2105298964. 4

**Question Number : 22 Question Id : 2105292242 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

MBR time of milk for manufacture of evaporated milk should be

1. less than 1.0 h
2. 1.0 - 1.5 h
3. 1.5 - 2.0 h
4. more than 2.5 h

**Options :**

- 2105298965. 1
- 2105298966. 2
- 2105298967. 3
- 2105298968. 4

**Question Number : 23 Question Id : 2105292243 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The use of which one of the following membranes can check bacterial growth problems during reverse osmosis since higher operating temperatures are possible with these membranes?

1. Polyvinyl
2. Non cellulose acetate
3. Cellulose acetate
4. Acetate oxide

**Options :**

- 2105298969. 1
- 2105298970. 2
- 2105298971. 3
- 2105298972. 4

**Question Number : 24 Question Id : 2105292244 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Given below are two statements:

**Statement I**

No milk should be left in the udder during milking

**Statement II**

Elimination of foremilk is recommended as it imparts an unsavoury flavor that may affect the flavor of total milk

In the light of the above statement choose the **most appropriate** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is correct but Statement II is false
4. Statement I is incorrect but Statement II is true

**Options :**

2105298973. 1

2105298974. 2

2105298975. 3

2105298976. 4

**Question Number : 25 Question Id : 2105292245 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which of the following is NOT correct with respect to *Staphylococcus aureus*?

1. It survives water activity as low as 0.85
2. It produces neurotoxins
3. It is halotolerant
4. It produces thermostable enterotoxins



**Options :**

- 2105298977. 1
- 2105298978. 2
- 2105298979. 3
- 2105298980. 4

**Question Number : 26 Question Id : 2105292246 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The causative agent of Creutzfeldt-Jakob disease is

- 1. *Cronobacter sakazakii*
- 2. Cryptosporidium
- 3. *Citrobacter freundii*
- 4. Prion

**Options :**

- 2105298981. 1
- 2105298982. 2
- 2105298983. 3
- 2105298984. 4

**Question Number : 27 Question Id : 2105292247 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Musty potato flavour is due to

- 1. Ketones
- 2. Alkylpyridines
- 3. Aldehydes
- 4. Alcohols

**Options :**

- 2105298985. 1

2105298986. 2

2105298987. 3

2105298988. 4

**Question Number : 28 Question Id : 2105292248 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

3-methylbutanal responsible for malty flavour, is derived from

1. Leucine
2. Lysine
3. Methionine
4. Threonine

**Options :**

2105298989. 1

2105298990. 2

2105298991. 3

2105298992. 4

**Question Number : 29 Question Id : 2105292249 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The type of mastitis spread by head flies is

1. Contagious mastitis
2. Common mastitis
3. Summer mastitis
4. Winter mastitis

**Options :**

2105298993. 1

2105298994. 2

2105298995. 3

2105298996. 4

**Question Number : 30 Question Id : 2105292250 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The enzyme checked for confirmation of *Bifidobacterium* is

1. Fructose-6-phosphatase
2. Fructose-6-ketolase
3. Fructose-6-phosphate phosphoketolase
4. Fructose-6-phosphate dehydrogenase

**Options :**

- 2105298997. 1
- 2105298998. 2
- 2105298999. 3
- 2105299000. 4

**Question Number : 31 Question Id : 2105292251 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

*Bifidobacterium* is phylogenetically more related to

1. Actinomycetaceae
2. Bacillaceae
3. Lactobacillaceae
4. Mycobacteriaceae

**Options :**

- 2105299001. 1
- 2105299002. 2
- 2105299003. 3
- 2105299004. 4



**Question Number : 32 Question Id : 2105292252 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

In Eijkman's test, incubation is done at

1.  $37^{\circ}\text{C} \pm 1^{\circ}\text{C}$  for  $48 \text{ h} \pm 2 \text{ h}$
2.  $40^{\circ}\text{C} \pm 1^{\circ}\text{C}$  for  $24 \text{ h} \pm 1 \text{ h}$
3.  $42.5^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$  for  $24 \text{ h} \pm 1 \text{ h}$
4.  $44.5^{\circ}\text{C} \pm 0.2^{\circ}\text{C}$  for  $24 \text{ h} \pm 2 \text{ h}$

**Options :**

- 2105299005. 1
- 2105299006. 2
- 2105299007. 3
- 2105299008. 4

**Question Number : 33 Question Id : 2105292253 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following is a lactic acid bacteria that synthesizes vitamin B<sub>12</sub>?

1. *Bifidobacterium*
2. *Brevibacterium*
3. *Propionibacterium*
4. *Pediococcus*

**Options :**

- 2105299009. 1
- 2105299010. 2
- 2105299011. 3
- 2105299012. 4

**Question Number : 34 Question Id : 2105292254 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

*Lactococcus lactis* ssp. *lactis* can be differentiated from *Lactococcus lactis* ssp. *cremoris* based on

1. Fermentation of galactose and lactose
2. Fermentation of galactose and maltose
3. Arginine hydrolysis and fermentation of galactose
4. Arginine hydrolysis and fermentation of maltose

**Options :**

- 2105299013. 1
- 2105299014. 2
- 2105299015. 3
- 2105299016. 4

**Question Number : 35 Question Id : 2105292255 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

In fermented milk products, green apple flavour is associated with

1. Lower diacetyl and lower acetaldehyde
2. Lower diacetyl and lower lactic acid
3. Lower diacetyl and excess acetaldehyde
4. Lower diacetyl and excess lactic acid

**Options :**

- 2105299017. 1
- 2105299018. 2
- 2105299019. 3
- 2105299020. 4

**Question Number : 36 Question Id : 2105292256 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



In lactococcal fermentation, acetaldehyde is formed due to

1. Lipid metabolism
2. Carbohydrate metabolism
3. Arginine hydrolysis
4. Threonine metabolism

**Options :**

- 2105299021. 1
- 2105299022. 2
- 2105299023. 3
- 2105299024. 4

**Question Number : 37 Question Id : 2105292257 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

As stipulated by FSSAI, minimum milk protein and acidity for fermented milk is

1. 2.9% (m/m) and 0.45% ( m/m lactic acid )
2. 3.0% (m/m) and 0.60% ( m/m lactic acid )
3. 2.9% (m/m) and 0.60% ( m/m lactic acid )
4. 3.0% (m/m) and 0.45% ( m/m lactic acid )

**Options :**

- 2105299025. 1
- 2105299026. 2
- 2105299027. 3
- 2105299028. 4

**Question Number : 38 Question Id : 2105292258 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Which of the following cheese is prepared using thermophilic starters?

1. Mozzarella
2. Cheddar
3. Cheshire
4. Gouda

**Options :**

2105299029. 1  
2105299030. 2  
2105299031. 3  
2105299032. 4

**Question Number : 39 Question Id : 2105292259 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following statements are true for homofermentative lactobacilli?

- A. Exclusively ferment hexose sugars to lactic acid by EMP
- B. Includes *L. delbrueckii ssp. bulgaricus* and *L.casei*
- C. Ferment pentose sugars
- D. Grow at a temperature higher than other 2 groups of lactobacilli

Choose the correct answer from the options given below:

1. A and C only
2. B and C only
3. A and D only
4. C and D only

**Options :**

2105299033. 1  
2105299034. 2  
2105299035. 3  
2105299036. 4

**Question Number : 40 Question Id : 2105292260 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The component of TWEEN 80<sup>®</sup> which gives improved stability to lactic cultures is

1. Oleic acid
2. Propionic acid
3. Butyric acid
4. Teichoic acid

**Options :**

- 2105299037. 1
- 2105299038. 2
- 2105299039. 3
- 2105299040. 4

**Question Number : 41 Question Id : 2105292261 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

In which one of the following dairy products is the aerobic plate count NOT included in process hygiene criteria, as prescribed by FSSAI?

1. Cheese spread
2. Milk lollies
3. Fermented milk products
4. Ice candy

**Options :**

- 2105299041. 1
- 2105299042. 2
- 2105299043. 3
- 2105299044. 4

**Question Number : 42 Question Id : 2105292262 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Galactose fermentation is used to distinguish

1. *Lactobacillus helveticus* and *L. delbrueckii ssp. bulgaricus*
2. *Lactobacillus acidophilus* and *L. delbrueckii ssp. bulgaricus*
3. *Lactobacillus helveticus* and *L. casei*
4. *Lactobacillus casei* and *Lactobacillus acidophilus*

**Options :**

- 2105299045. 1
- 2105299046. 2
- 2105299047. 3
- 2105299048. 4

**Question Number : 43 Question Id : 2105292263 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Starter interaction where one species is inhibited by the removal of essential nutrients or formation of toxic metabolites

1. Amensalism
2. Commensalism
3. Competition
4. Parasitism

**Options :**

- 2105299049. 1
- 2105299050. 2
- 2105299051. 3
- 2105299052. 4

**Question Number : 44 Question Id : 2105292264 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**



**Correct Marks : 4 Wrong Marks : 1**

Development of what level of acidity in Horrall-Elliker test indicates a good and active culture for cheese making?

1. 0.10% lactic acid
2. 0.20% lactic acid
3. 0.30% lactic acid
4. 0.40% lactic acid

**Options :**

- 2105299053. 1
- 2105299054. 2
- 2105299055. 3
- 2105299056. 4

**Question Number : 45 Question Id : 2105292265 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following bacteriocins is different from others?

1. Lacticin F
2. Lacticin B
3. Lacticin 481
4. Lactococcin A

**Options :**

- 2105299057. 1
- 2105299058. 2
- 2105299059. 3
- 2105299060. 4

**Question Number : 46 Question Id : 2105292266 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Major flavour compound in yoghurt is

1. Diacetyl
2. Acetaldehyde
3. Methyl ketone
4. Furfural

**Options :**

- 2105299061. 1
- 2105299062. 2
- 2105299063. 3
- 2105299064. 4

**Question Number : 47 Question Id : 2105292267 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following is NOT used as a cryoprotectant during freeze drying of starters?

1. Monosodium glutamate
2. Dimethylsulphoxide
3. Dimethyl sulphide
4. Mannitol

**Options :**

- 2105299065. 1
- 2105299066. 2
- 2105299067. 3
- 2105299068. 4

**Question Number : 48 Question Id : 2105292268 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Psychrotrophic bacteria can grow at very low temperatures owing to the presence of which one of the following in their cell membranes?

1. Hydrophobic amino acids
2. Unsaturated fatty acids
3. Saturated fatty acids
4. Lipoprotein complexes

**Options :**

- 2105299069. 1
- 2105299070. 2
- 2105299071. 3
- 2105299072. 4

**Question Number : 49 Question Id : 2105292269 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following represents the SPC (in cfu per ml, after rounding off as per standard procedure) and grade, respectively of the given sample?

1. 2,45,000 and Fair
2. 2,50,000 and Good
3. 2,40,000 and Good
4. 2,50,000 and Very good

**Options :**

- 2105299073. 1
- 2105299074. 2
- 2105299075. 3
- 2105299076. 4

**Question Number : 50 Question Id : 2105292270 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Match **List I** with **List II**

<b>List I</b>	<b>List II</b>
(Biochemical Property)	(Organism)
A. Catalase positive	I. <i>Pseudomonas aeruginosa</i>
B. Catalase negative	II. <i>Enterobacter aerogenes</i>
C. Oxidase negative	III. <i>Staphylococcus aureus</i>
D. Coagulase positive	IV. <i>Lactococcus lactis ssp. lactis</i>

Choose the correct answer from the options given below:

1. A-I, B-II, C-III, D-IV
2. A-II, B-IV, C-I, D-III
3. A-IV, B-I, C-III, D-II
4. A-III, B-IV, C-II, D-I

**Options :**

2105299077. 1  
2105299078. 2  
2105299079. 3  
2105299080. 4

**Question Number : 51 Question Id : 2105292271 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

In assessing hygienic quality of *khoa* pan, a 100 cm<sup>2</sup> area of the pan was swabbed into 25 ml of rinse solution and 1 ml of 10<sup>-1</sup> dilution of the rinse solution was plated out in duplicate. After incubation, 15 and 25 colonies were observed on the plates. What is the hygienic quality of the *khoa* pan?

1. Good
2. Satisfactory
3. Unsatisfactory
4. Fairly satisfactory

**Options :**

2105299081. 1  
2105299082. 2  
2105299083. 3  
2105299084. 4

**Question Number : 52 Question Id : 2105292272 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

As per the latest FSSAI microbiological specifications, what is the number of samples of infant formula to be tested to clear a batch with respect to *Cronobacterium* spp.?

1. 05
2. 25
3. 30
4. 60

**Options :**

2105299085. 1  
2105299086. 2  
2105299087. 3  
2105299088. 4

**Question Number : 53 Question Id : 2105292273 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical  
Correct Marks : 4 Wrong Marks : 1**

The latest in Food Safety Management System (FSMS) ISO 22000 series is

1. ISO 22000 : 2000
2. ISO 22000 : 2015
3. ISO 22000 : 2018
4. ISO 22000 : 2020

**Options :**

- 2105299089. 1
- 2105299090. 2
- 2105299091. 3
- 2105299092. 4

**Question Number : 54 Question Id : 2105292274 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is  
Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical  
Correct Marks : 4 Wrong Marks : 1**

Which of the following statements is TRUE with respect to the use of Petrifilm method for the enumeration of aerobic plate count in foods?

1. Reduces incubation time
2. Eliminates the preparation of diluents
3. Eliminates media preparation
4. Requires large incubation space

**Options :**

- 2105299093. 1
- 2105299094. 2
- 2105299095. 3
- 2105299096. 4

**Question Number : 55 Question Id : 2105292275 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is  
Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**



**Correct Marks : 4 Wrong Marks : 1**

In Direct Epifluorescent Filter Technique (DEFT) method, staining with acridine orange results in what colour of fluorescence by dead cells? What is the cellular constituent causing this fluorescence?

1. Orange and RNA
2. Orange and DNA
3. Green and RNA
4. Green and DNA

**Options :**

2105299097. 1  
2105299098. 2  
2105299099. 3  
2105299100. 4

**Question Number : 56 Question Id : 2105292276 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The bonding between sugar and base in a DNA nucleotide is

1. Hydrogen bonding
2. Disulfide bonding
3. N-glycosidic bonding
4. Ester linkage

**Options :**

2105299101. 1  
2105299102. 2  
2105299103. 3  
2105299104. 4

**Question Number : 57 Question Id : 2105292277 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following statements are *correct*?

- A. Mishti doi is popular in the eastern part of India
- B. Yakult contains *Lactococcus casei*
- C. Bacteriocin can be used as a food preservative
- D. The creatinine test is conducted to evaluate the ability to produce acidity by lactic acid bacteria

Choose the correct answer from the options given below:

- 1. A and B only
- 2. A, B and C only
- 3. A and C only
- 4. A, B, C and D

**Options :**

2105299105. 1

2105299106. 2

2105299107. 3

2105299108. 4

**Question Number : 58 Question Id : 2105292278 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Arrange the following steps in the sequence they are used for the detection of *Salmonella* spp.

- A. Selective enrichment
- B. Non-selective enrichment
- C. Selective streaking
- D. Biochemical / serological identification

Choose the correct answer from the options given below:

- 1. B, A, C and D
- 2. A, B, C and D
- 3. C, D, A and B
- 4. D, A, C and B

**Options :**

- 2105299109. 1
- 2105299110. 2
- 2105299111. 3
- 2105299112. 4

**Question Number : 59 Question Id : 2105292279 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Match List I with List II

List I	List II
(Bacteriological medium)	(Bacteria identified / enumerated)
A. Bismuth sulfite agar	I. <i>Listeria monocytogenes</i>
B. Baird Parker medium	II. <i>Salmonella</i> spp.
C. Mannitol egg yolk polymyxin agar	III. <i>Staphylococcus aureus</i>
D. Moxalactum agar	IV. <i>Bacillus cereus</i>

Choose the correct answer from the options given below:

1. A-I, B-II, C-III, D-IV
2. A-I, B-IV, C-II, D-III
3. A-II, B-III, C-IV, D-I
4. A-IV, B-III, C-I, D-II

**Options :**

- 2105299113. 1
- 2105299114. 2
- 2105299115. 3
- 2105299116. 4

**Question Number : 60 Question Id : 2105292280 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The initial reduction of resazurin dye to resorufin in milk takes place at an oxidation-reduction potential of

1. +0.3 V to +0.4 V
2. +0.2 V to +0.05 V
3. +0.04 V to +0.01 V
4. - 0.01 V to -0.06 V

**Options :**

- 2105299117. 1
- 2105299118. 2
- 2105299119. 3
- 2105299120. 4

**Question Number : 61 Question Id : 2105292281 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Vegetable oil containing highest amount of saturated fatty acids is

1. Olive oil
2. Palm oil
3. Groundnut oil
4. Coconut oil

**Options :**

- 2105299121. 1
- 2105299122. 2
- 2105299123. 3
- 2105299124. 4

**Question Number : 62 Question Id : 2105292282 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Greenish tinge of buffalo ghee is due to the presence of

1. Carotenoids
2. Riboflavin
3. Anthocyanin
4. Biliverdin

**Options :**

2105299125. 1  
2105299126. 2  
2105299127. 3  
2105299128. 4

**Question Number : 63 Question Id : 2105292283 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Trans isomer of oleic acid is known as

1. Elaidic acid
2. Palmitic acid
3. Myristic acid
4. Propionic acid

**Options :**

2105299129. 1  
2105299130. 2  
2105299131. 3  
2105299132. 4

**Question Number : 64 Question Id : 2105292284 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Which one of the following whey proteins plays a role in lactose biosynthesis?

1. Immunoglobulin
2.  $\beta$ -lactoglobulin
3. Bovine serum albumin
4.  $\alpha$ -lactalbumin

**Options :**

2105299133. 1  
2105299134. 2  
2105299135. 3  
2105299136. 4

**Question Number : 65 Question Id : 2105292285 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Functional group responsible for reducing property of lactose is

1. Hydroxyl group on glucose
2. Aldehyde group on galactose
3. Keto group on glucose
4. Aldehyde group on glucose

**Options :**

2105299137. 1  
2105299138. 2  
2105299139. 3  
2105299140. 4

**Question Number : 66 Question Id : 2105292286 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which fatty acid produces characteristic off-flavour with hydrolytic rancidity of butter?

1. Stearic acid
2. Butyric acid
3. Palmitic acid
4. Linolenic acid

**Options :**

2105299141. 1  
2105299142. 2  
2105299143. 3  
2105299144. 4

**Question Number : 67 Question Id : 2105292287 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which one of the following can act as a source of cooked flavour in case of boiled milk?

1. Butyric acid
2. Methionine
3. Lactose
4. N-Acetyl neuraminic acid

**Options :**

2105299145. 1  
2105299146. 2  
2105299147. 3  
2105299148. 4

**Question Number : 68 Question Id : 2105292288 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which element is required for synthesis of Vitamin B12?

1. Iron
2. Cobalt
3. Nickel
4. Magnesium

**Options :**

2105299149. 1  
2105299150. 2  
2105299151. 3  
2105299152. 4

**Question Number : 69 Question Id : 2105292289 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which milk constituent is less in colostrum as compared to normal milk?

1. Whey proteins
2. Fat
3.  $\beta$ -carotene
4. Lactose

**Options :**

2105299153. 1  
2105299154. 2  
2105299155. 3  
2105299156. 4

**Question Number : 70 Question Id : 2105292290 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Which one of the following foods contains maximum amount of Carotene/Vitamin A?

1. Egg
2. Cabbage
3. Tofu
4. Butter

**Options :**

2105299157. 1  
2105299158. 2  
2105299159. 3  
2105299160. 4

**Question Number : 71 Question Id : 2105292291 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which vitamin contributes substantially to the redox potential of milk?

1. Vitamin A
2. Vitamin B2
3. Vitamin B6
4. Vitamin K

**Options :**

2105299161. 1  
2105299162. 2  
2105299163. 3  
2105299164. 4

**Question Number : 72 Question Id : 2105292292 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Avidin present in raw egg white will reduce the availability of which of the following?

1. Biotin
2. Ascorbic acid
3. Folic acid
4. Carotene

**Options :**

- 2105299165. 1
- 2105299166. 2
- 2105299167. 3
- 2105299168. 4

**Question Number : 73 Question Id : 2105292293 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which one of the following gases contributes maximum to dissolved gases of milk?

1. Oxygen
2. Nitrogen
3. Hydrogen
4. Carbon dioxide

**Options :**

- 2105299169. 1
- 2105299170. 2
- 2105299171. 3
- 2105299172. 4

**Question Number : 74 Question Id : 2105292294 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** AAS technique is used for the determination of the mineral profile of milk

**Statement II:** Na and K can also be determined with the help of flame photometry

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

**Options :**

2105299173. 1

2105299174. 2

2105299175. 3

2105299176. 4

**Question Number : 75 Question Id : 2105292295 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is**

**Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Following parameters are evaluated to judge the quality of ghee and also to prevent adulteration of ghee.

- A. Iodine value can be used for checking the purity of ghee
- B. RM and PV values of ghee are not the indicator of ghee authenticity
- C. Physicochemical constants of ghee cannot give the complete idea of authenticity
- D. GLC technique can also help in detecting adulteration of ghee
- E. Addition of vanaspati in ghee is detected by Halphen test

Choose the correct answer from the options given below:

- 1. A & B statements are true
- 2. B & C statements are false
- 3. C & D statements are false
- 4. B & E statements are false

**Options :**

- 2105299177. 1
- 2105299178. 2
- 2105299179. 3
- 2105299180. 4

**Question Number : 76 Question Id : 2105292296 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

What is the average per cent of cholesterol in total lipids fraction of milk?

- 1. 0.46%
- 2. 2.0%
- 3. 0.1%
- 4. 3.0%

**Options :**

- 2105299181. 1

2105299182. 2

2105299183. 3

2105299184. 4

**Question Number : 77 Question Id : 2105292297 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** Fatty acid profile of milk fat is determined using GLC technique

**Statement II:** Analysis of volatile components of foods can be carried out using GLC technique

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

**Options :**

2105299185. 1

2105299186. 2

2105299187. 3

2105299188. 4

**Question Number : 78 Question Id : 2105292298 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Given below are two statements: one is labelled as **Assertion A** and other is labelled as **Reason R**

**Assertion A:** Colostrum contains high percentage of Immunoglobulins, growth hormones and lactoferrin

**Reason R:** Immunoglobulins are important for the immunity of newborns

In the light of the above statements, choose the **correct** answer from the options given below

1. Both **A** and **R** are true and **R** is the correct explanation of **A**
2. Both **A** and **R** are true and **R** is NOT the correct explanation of **A**
3. **A** is true but **R** is false
4. **A** is false but **R** is true

**Options :**

2105299189. 1

2105299190. 2

2105299191. 3

2105299192. 4

**Question Number : 79 Question Id : 2105292299 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The component of polarimeter which produce plane-polarized light is

1. Nicol prism
2. Sodium vapour lamp
3. Cathode lamp
4. Photo cell

**Options :**

2105299193. 1

2105299194. 2

2105299195. 3



2105299196. 4

**Question Number : 80 Question Id : 2105292300 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which property of lactose is utilized for estimation of lactose in Lane-Eynon method?

1. Oxidising property
2. Mutarotation
3. Hydrolysis
4. Reducing property

**Options :**

- 2105299197. 1
- 2105299198. 2
- 2105299199. 3
- 2105299200. 4

**Question Number : 81 Question Id : 2105292301 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Atomic Absorption Spectrophotometry (AAS) is a technique used for estimation of

1. Lactose
2. Calcium
3. Fat
4. Protein

**Options :**

- 2105299201. 1
- 2105299202. 2
- 2105299203. 3
- 2105299204. 4

**Question Number : 82 Question Id : 2105292302 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Hehner test is used for detection of which one of the following in milk?

1. Sugar
2. Glucose
3. Skim milk powder
4. Formalin

**Options :**

- 2105299205. 1
- 2105299206. 2
- 2105299207. 3
- 2105299208. 4

**Question Number : 83 Question Id : 2105292303 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which compound can be used instead of furfural in Baudouin test?

1. Sucrose
2. Sodium chloride
3. Gingili oil
4. Sodium hydroxide

**Options :**

- 2105299209. 1
- 2105299210. 2
- 2105299211. 3
- 2105299212. 4

**Question Number : 84 Question Id : 2105292304 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

"Feathering" of coffee cream is NOT influenced by

1. pH
2. Temperature
3. Potassium ions
4. Calcium ions

**Options :**

- 2105299213. 1
- 2105299214. 2
- 2105299215. 3
- 2105299216. 4

**Question Number : 85 Question Id : 2105292305 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Lactoperoxidase belongs to which one of the following groups of enzymes?

1. Lyase
2. Hydrolase
3. Oxidoreductase
4. Transferase

**Options :**

- 2105299217. 1
- 2105299218. 2
- 2105299219. 3
- 2105299220. 4

**Question Number : 86 Question Id : 2105292306 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Which of the following pairs is the least variable constituent in milk during the stage of lactation?

1. Lactose & chloride
2. Lactose & protein
3. Fat & protein
4. Protein & chloride

**Options :**

- 2105299221. 1
- 2105299222. 2
- 2105299223. 3
- 2105299224. 4

**Question Number : 87 Question Id : 2105292307 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The maximum concentration of fatty acid present in milk lipid is

1. 4:0
2. 12:0
3. 18:1
4. 16:0

**Options :**

- 2105299225. 1
- 2105299226. 2
- 2105299227. 3
- 2105299228. 4

**Question Number : 88 Question Id : 2105292308 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The most common shape of lactose crystal is

1. Pyramid
2. Tomahawk
3. Rhomboid
4. Globular

**Options :**

2105299229. 1  
2105299230. 2  
2105299231. 3  
2105299232. 4

**Question Number : 89 Question Id : 2105292309 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following can be classified as 'hexadecanoic acid' under IUPAC?

1. Butyric acid
2. Capric acid
3. Palmitic acid
4. Stearic acid

**Options :**

2105299233. 1  
2105299234. 2  
2105299235. 3  
2105299236. 4

**Question Number : 90 Question Id : 2105292310 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

During mastitic infection, chloride influx in milk increases to compensate for the reduced biosynthesis of lactose for maintaining the

1. Density of milk
2. Osmotic pressure of milk
3. Viscosity of milk
4. Electrical neutrality of milk

**Options :**

- 2105299237. 1
- 2105299238. 2
- 2105299239. 3
- 2105299240. 4

**Question Number : 91 Question Id : 2105292311 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Conversion of lactose glass to crystalline lactose causes defects in which type of milk product?

1. Ice cream
2. Sweetened condensed milk
3. Milk powder
4. Cheese

**Options :**

- 2105299241. 1
- 2105299242. 2
- 2105299243. 3
- 2105299244. 4

**Question Number : 92 Question Id : 2105292312 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



Which of the following organs will be severely affected by deprivation of lactose in the diet of an infant?

1. Liver
2. Kidney
3. Pancreas
4. Brain

**Options :**

- 2105299245. 1
- 2105299246. 2
- 2105299247. 3
- 2105299248. 4

**Question Number : 93 Question Id : 2105292313 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Unit for measurement of electrical conductivity of milk is

1. Dynes
2. Becquerel's
3. Siemens
4. Angstrom

**Options :**

- 2105299249. 1
- 2105299250. 2
- 2105299251. 3
- 2105299252. 4

**Question Number : 94 Question Id : 2105292314 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which chemical is used as a substrate for alkaline phosphatase for evaluating the efficiency of pasteurization?

1. Rosalic acid
2. Sodium Bicarbonate
3. Dimethyl aminobenzaldehyde
4. p-Nitrophenyl Phosphate

**Options :**

2105299253. 1  
2105299254. 2  
2105299255. 3  
2105299256. 4

**Question Number : 95 Question Id : 2105292315 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Match **List I** with **List II**

List I	List II
A. Vitamin A	I. 4-D disease
B. Vitamin C	II. Bleeding gums
C. Niacin	III. Cholesterol
D. Vitamin D	IV. Cell differentiation

Choose the correct answer from the options given below:

1. A- III, B-II, C-IV, D-I
2. A-IV, B-II, C-III, D-I
3. A-I, B-II, C-IV, D-III
4. A-IV, B-II, C-I, D-III

**Options :**

2105299257. 1

2105299258. 2

2105299259. 3

2105299260. 4

**Question Number : 96 Question Id : 2105292316 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Match **List I** with **List II**

List I	List II
A. Lipase	I. Thermal history of milk
B. Lactoperoxidase	II. Rancidity
C. $\gamma$ - glutamyl transpeptidase	III. Subclinical mastitis
D. Catalase	IV. Cold pasteurization

Choose the correct answer from the options given below:

1. A- I, B-II, C-III, D-IV
2. A-II, B-IV, C-I, D-III
3. A-II, B-I, C-IV, D-III
4. A-III, B-IV, C-I, D-II

**Options :**

2105299261. 1

2105299262. 2

2105299263. 3

2105299264. 4

**Question Number : 97 Question Id : 2105292317 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



Given below are two statements: one is labelled as **Assertion A** and the other is labelled as **Reason R**

**Assertion A:** Compared to urea, lactosyl urea can be safely fed to cattle

**Reason R:** Urease cannot breakdown lactosyl urea

In the light of above statements choose the **correct** answer from the options given below:

1. Both **A** and **R** are true and **R** is the correct explanation of **A**
2. Both **A** and **R** are true but **R** is NOT the correct explanation of **A**
3. **A** is true but **R** is false
4. **A** is false but **R** is true

**Options :**

- 2105299265. 1
- 2105299266. 2
- 2105299267. 3
- 2105299268. 4

**Question Number : 98 Question Id : 2105292318 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Homogenized milk is whiter in colour due to the increased level of

1. Absorption of light
2. Reflection of light
3. Dispersion of light
4. Scattering of light

**Options :**

- 2105299269. 1
- 2105299270. 2
- 2105299271. 3
- 2105299272. 4

**Question Number : 99 Question Id : 2105292319 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which of the following are true about chymosin?

- A. is commonly known as rennin
- B. is used in cheese making
- C. is a protease enzyme
- D. is an essential amino acid

Choose the most appropriate answer from the following:

- 1. A and B only
- 2. B and D only
- 3. A, B and C
- 4. B, C and D

**Options :**

- 2105299273. 1
- 2105299274. 2
- 2105299275. 3
- 2105299276. 4

**Question Number : 100 Question Id : 2105292320 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Heat denaturation of whey proteins leads to

1. Fishy flavour
2. Sandiness
3. Fouling
4. Browning

**Options :**

2105299277. 1  
2105299278. 2  
2105299279. 3  
2105299280. 4

**Question Number : 101 Question Id : 2105292321 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which of the following are characteristics of whey protein?

- A. Whey proteins are proteins which are insoluble at pH 4.6
- B. Whey prepared by gel permeation chromatography does not contain lactose & soluble salts
- C. Acid whey contains glycomacropapetide
- D. Acid whey contains  $\gamma$ -casein and proteose peptone
- E. Ultrafiltration is used for the preparation of whey protein isolate

Choose the most appropriate answer from the options given below

1. A & C are correct
2. B & D are correct
3. C & E are correct
4. A, B & D are correct

**Options :**

2105299281. 1



2105299282. 2

2105299283. 3

2105299284. 4

**Question Number : 102 Question Id : 2105292322 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which of the following properties is desirable in Instant Milk Powder?

1. Sinkability
2. Foaming ability
3. Free fat formation
4. Sedimentation

**Options :**

2105299285. 1

2105299286. 2

2105299287. 3

2105299288. 4

**Question Number : 103 Question Id : 2105292323 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Infants are least allergic to which of one of the following formulas?

1. Soy milk based formula
2. Partially hydrolyzed formula
3. Extensively hydrolyzed formula
4. Amino acid based formula

**Options :**

2105299289. 1

2105299290. 2

2105299291. 3

2105299292. 4

**Question Number : 104 Question Id : 2105292324 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The indicator used in determination of peroxide value of ghee is

1. Phenolphthalein
2. Starch
3. Methylene blue
4. Methyl red

**Options :**

- 2105299293. 1
- 2105299294. 2
- 2105299295. 3
- 2105299296. 4

**Question Number : 105 Question Id : 2105292325 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

The indicator used in estimation of Reichert-Meissel/Polenske value of ghee is

1. Methyl red
2. Methylene blue
3. Starch
4. Phenolphthalein

**Options :**

- 2105299297. 1
- 2105299298. 2
- 2105299299. 3
- 2105299300. 4

**Question Number : 106 Question Id : 2105292326 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

HLB number helps in the selection of which ingredient of ice-cream?

1. Sweetener
2. Emulsifier
3. Stabilizer
4. Colorant

**Options :**

- 2105299301. 1
- 2105299302. 2
- 2105299303. 3
- 2105299304. 4

**Question Number : 107 Question Id : 2105292327 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Which of the following sugar has the highest sweetness?

1. Invert sugar
2. Sucrose
3. Glucose
4. Fructose

**Options :**

- 2105299305. 1
- 2105299306. 2
- 2105299307. 3
- 2105299308. 4

**Question Number : 108 Question Id : 2105292328 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**



The maximum permitted moisture content in Paneer as per FSSR, 2011 is

1. 65% (m/m)
2. 50% (m/m)
3. 60% (m/m)
4. 55% (m/m)

**Options :**

2105299309. 1  
2105299310. 2  
2105299311. 3  
2105299312. 4

**Question Number : 109 Question Id : 2105292329 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The increased yield of Paneer achieved in milk heated beyond 85°C is mainly due to

1.  $\alpha$ -lactalbumin  $\kappa$ -casein interaction
2. Proteose-peptone  $\kappa$ -casein interaction
3.  $\beta$ -lg  $\kappa$ -casein interaction
4.  $\beta$ -casein  $\kappa$ -casein interaction

**Options :**

2105299313. 1  
2105299314. 2  
2105299315. 3  
2105299316. 4

**Question Number : 110 Question Id : 2105292330 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

What per cent of total proteins of milk is recovered in Paneer?

1. 90%
2. 75%
3. 60%
4. 70%

**Options :**

- 2105299317. 1
- 2105299318. 2
- 2105299319. 3
- 2105299320. 4

**Question Number : 111 Question Id : 2105292331 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Which vitamin would show maximum destruction during Khoa making?

1. Vitamin B<sub>6</sub>
2. Vitamin C
3. Folic acid
4. Vitamin A

**Options :**

- 2105299321. 1
- 2105299322. 2
- 2105299323. 3
- 2105299324. 4

**Question Number : 112 Question Id : 2105292332 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

As per FSSR, 2011, the minimum total solids (m/m) requirement for Khoa is

1. 80%
2. 65%
3. 70%
4. 55%

**Options :**

- 2105299325. 1
- 2105299326. 2
- 2105299327. 3
- 2105299328. 4

**Question Number : 113 Question Id : 2105292333 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Heat stable proteinases of psychrotrophic organisms can lead to which one of the following defects in UHT milk?

1. Souring
2. Feathering
3. Age thickening
4. Age gelation

**Options :**

- 2105299329. 1
- 2105299330. 2
- 2105299331. 3
- 2105299332. 4

**Question Number : 114 Question Id : 2105292334 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**



What is the value of the sugar ratio of sweetened condensed milk?

1. 42.5
2. 52.5
3. 62.5
4. 75.5

**Options :**

- 2105299333. 1
- 2105299334. 2
- 2105299335. 3
- 2105299336. 4

**Question Number : 115 Question Id : 2105292335 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

To obtain smooth texture in sweetened condensed milk, the desired lactose crystal size is

1.  $<20\mu\text{m}$
2.  $<30\mu\text{m}$
3.  $<15\mu\text{m}$
4.  $<10\mu\text{m}$

**Options :**

- 2105299337. 1
- 2105299338. 2
- 2105299339. 3
- 2105299340. 4

**Question Number : 116 Question Id : 2105292336 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Proteolytic cleavage of Kappa casein in the cheese-making process is referred to as

1. Secondary phase of calcium coagulation
2. Primary phase of rennet coagulation
3. Tertiary phase of rennet coagulation
4. Secondary phase of rennet coagulation

**Options :**

- 2105299341. 1
- 2105299342. 2
- 2105299343. 3
- 2105299344. 4

**Question Number : 117 Question Id : 2105292337 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

The flocculation of casein micelle during cheese making cannot occur if the temperature of the milk is maintained below

1. 35 °C
2. 20 °C
3. 30 °C
4. 40 °C

**Options :**

- 2105299345. 1
- 2105299346. 2
- 2105299347. 3
- 2105299348. 4

**Question Number : 118 Question Id : 2105292338 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Chymosin is an example of

1. Tripeptidase
2. Dipeptidase
3. Endopeptidase
4. Exopeptidase

**Options :**

2105299349. 1  
2105299350. 2  
2105299351. 3  
2105299352. 4

**Question Number : 119 Question Id : 2105292339 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical**

**Correct Marks : 4 Wrong Marks : 1**

Match List I with List II

List I	List II
A. Turmeric paper test	I. Sucrose
B. Hehner test	II. Neutralizer
C. Rosalic acid test	III. Ammonium salt
D. Resorcinol test	IV. Formalin

Choose the correct answer from the options given below:

1. A- III, B-I, C-II, D-IV
2. A-IV, B-III, C-II, D-I
3. A-II, B-IV, C-I, D-III
4. A-III, B-IV, C-II, D-I

**Options :**

2105299353. 1  
2105299354. 2  
2105299355. 3



2105299356. 4

**Question Number : 120 Question Id : 2105292340 Question Type : MCQ Option Shuffling : No Display Question Number : Yes Is Question Mandatory : No Single Line Question Option : No Option Orientation : Vertical Correct Marks : 4 Wrong Marks : 1**

Given below are two statements

**Statement I:** Methylene blue reduction test is based on the oxidation-reduction potential of milk

**Statement II:** Methylene blue chloride is the salt used for Methylene blue reduction test

In the light of the above statements, choose the **most appropriate** answer from the options given below

1. Both Statement I and Statement II are true
2. Both Statement I and Statement II are false
3. Statement I is true but Statement II is false
4. Statement I is false but Statement II is true

**Options :**

- 2105299357. 1
- 2105299358. 2
- 2105299359. 3
- 2105299360. 4