PREVIEW QUESTION BANK

Module Name : DAIRY SCIENCE-ENG
Exam Date : 09-Jul-2023 Batch : 10:00-12:00

Sr. No.	Client Question ID	Question Body and Alternatives	Marks	Negative Marks
Objective Question				
1	3301	Which among the following is responsible for foodborne toxi- infection? 1. *Vibrio parahemolyticus* 2. *Yersinia enterocolitica* 3. *Clostridium botulinum* 4. *Clostridium perfringens* A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
2	3302	Hotis test is used for differentiating, which of the following two mastitis causing pathogens? 1. *Staphylococcus aureus* from *Streptococcus agalactiae* 2. *Streptococcus agalactiae* from *Streptococcus dysgalactiae* 3. *Staphylococcus aureus* from *Streptococcus uberis* 4. *Streptococcus agalactiae* from *Streptococcus uberis* A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
3	3303		4.0	1.00

Given below are two statements:

Statement (I) : Lysozyme is present in cow milk in considerable amounts but is absent in human milk.

Statement (II) : Gram negative bacteria are generally more resistant to lysozyme than Gram positive bacteria.

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

1. Both **Statement (I)** and **Statement (II)** are correct.
2. Both **Statement (I)** and **Statement (II)** are incorrect.
3. **Statement (I)** is correct but **Statement (II)** is incorrect.
4. **Statement (I)** is incorrect but **Statement (II)** is correct.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

4	3304	Which of the following is a non-leucoform dye used in the rapid test utilizing starter cultures for the detection of antibiotic residues in milk ? 1. Methylene blue 2. Resazurin 3. Tetrazolium 4. Nigrosine A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

5	3305	Lactic acid bacteria are _____. 1. Gram –ve, catalase +ve 2. Gram –ve, catalase –ve 3. Gram +ve, catalase –ve 4. Gram +ve, catalase +ve A1 : 1	4.0	1.00

		A2 : 2 A3 : 3 A4 : 4		
Objective Question				
6	3306	Repasteurization and prolonged holding of milk at pasterurization temperature leads to predominance of _____. 1. Mesophils 2. Thermophils 3. Thermodurics 4. Psychrotrophs A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
7	3307	Peptonising bacteria leads to ropiness in milk through production of _____ from nitrogenous substances. 1. Lignin 2. Pectins 3. Peptones 4. Mucins A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
8	3308	Barritts reagent is used in _____. 1. Indole test 2. Methyl red test 3. Eijkman's test 4. Voges-Proskauer	4.0	1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

9 | 3309 | 4.0 | 1.00

Given below are two statements:

Statement (I) : Chances of survival of thermodurics are relatively more in HTST when compared to holder method of pasteurization.

Statement (II) : Control of thermoduric species is an operational problem involving both dairy farms and milk plant.

In 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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

10 | 3310 | 4.0 | 1.00

'Emetic Syndrome' is associated with _____.

1. *Salmonella typhi*
2. *Bacillus cereus*
3. *Clostridium perfringens*
4. *Escherichia coli* O157 : H7

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

11 | 3311 | 4.0 | 1.00

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

List-I	List-II
(A) Widal test	(I) Tuberculosis
(B) Dick test	(II) Scarlet fever
(C) Mantoux test	(III) Typhoid
(D) Schick test	(IV) Diphtheria

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

12 | 3312 | Aerobic spore former that produce bitty cream defect in pasteurized milk is _____. | 4.0 | 1.00

1. *Bacillus cereus*
2. *Bacillus coagulans*
3. *Bacillus subtilis*
4. *Bacillus mycoides*

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

13 | 3313 | | 4.0 | 1.00

		Which of the following compounds is not generally elaborated by staphylococcal species? 1. Verotoxin 2. Enterotoxin 3. Hemolysin 4. Coagulase A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
14	3314	Enzymes involved in the formation of ethyl esters leading to the development of fruity flavour in milk are _____. 1. Proteases and lipases 2. Lipases and esterases 3. Proteases and esterases 4. Esterases and hydrolases A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
15	3315		4.0	1.00

Given below are two statements:

Statement (I) : Moseley count gives a better index of shelf life than aerobic mesophilic count as it determines the growth rate of bacteria when stored at low temperature

Statement (II) : Flavor rating at $7^{o}C$ is a useful shelf test as most of the enzymes responsible for off flavors are optimally produced and more active at this temperature.

In 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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

16	3316	Which of the following pairs of milk constituents form the specific factors of antimicrobial systems in milk ? 1. Lactanins and immunoglobulins 2. Lactanins and lysozyme 3. Bifidus factor and lactoferrin 4. Bifidus factor and complement A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

17	3317		4.0	1.00

		In Eijkmans test, inoculum from positive PCT tubes is transfered to MacConkey's broth tubes and incubated at _____. 1. $44.5 \pm 0.2^{o}C$ for $24 \pm 2h$ 2. $42.0 \pm 0.5^{o}C$ for $24 \pm 2h$ 3. $44.5 \pm 0.2^{o}C$ for $48 \pm 2h$ 4. $42.0 \pm 0.2^{o}C$ for $48 \pm 2h$ A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
18	3318	According to the process hygiene criteria prescribed by FSSAI for pasteurised milk, which of the following is applicable for coliforms ? 1. n = 3 ; c = 5 2. n = 5 ; c = 3 3. n = 5 ; c = 0 4. n = 3 ; c = 0 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
19	3319	Which of the following reagent is used in the presumptive determination of somatic cells in mastitic milk? 1. Potassium dichromate 2. Hydrogen peroxide 3. Silver nitrate 4. Sodium lauryl sulphate A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question				
20	3320	Tumbling motility is typical for _____. 1. *Listeria monocytogenes* 2. *Mycobacterium tuberculosis* 3. *Escherichia coli* 4. *Campylobacter jejuni* A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
21	3321	The main purpose of thermization is to _____. 1. to extend storage of raw milk prior to processing 2. to substitute for pasteurization 3. to substitute for boiling 4. to destroy all pathogenic organisms A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
22	3322		4.0	1.00

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

List-I	**List-II**
Defect	**Causative metabolite**
(A) Putrid odour in butter	(I) acid and gas
(B) Frothiness in sour cream	(II) isovaleric acid
(C) Phenolic flavour in sterilized milk	(III) 3-methyl butanol
(D) Malty flavour	(IV) cresols

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

23 3323

The sequence of metabolic events in raw milk held at room temperature for long period is

(A) Streptococci converts lactose to lactic acid

(B) Mold grow on the surface and reduce acidity by oxidizing lactic acid to CO_2 and H_2O

(C) Lactobacilli further converts remaining lactose to lactic acid

(D) Proteolytic sporeformers degrade casein fraction and lipolytic bacteria utilize fat fraction

Choose the ***correct*** answer from the options given below:

1. (A), (B), (C), (D).
2. (A), (D), (C), B).
3. (A), (C), (B), (D).
4. (C), (B), (D), (A).

4.0 1.00

A1 : 1

A2 : 2

A3 : 3

		A4 : 4		
Objective Question				
24	3324	The Bottler's standard for yeast and molds [cfu/10g] in granulated sugar for use in ice-cream shall not exceed _____. 1. 200 2. 10 3. 20 4. 100 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
25	3325	Coagulation of evaporated milk accompanied by gas and cheesy odour is carried by 1. *Bacillus cereus* 2. *Bacillus subtilis* 3. *Bacillus panis* 4. *Bacillus megaterium* A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
26	3326		4.0	1.00

Given below are two statements, one is labelled as **Assertion (A)** and other one labelled as **Reason (R)**.

Assertion (A) : In UHT sterilization treatments spore destructions is higher while chemical changes are minimal.

Reason (R) : The Q10 value for bacterial endogens ranges between 8 to 30 while the Q10 value for chemical changes is 1.5 – 2.0.

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

1. Both **(A)** and **(R)** are correct and **(R)** is the 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 correct.
4. **(A)** is not correct but **(R)** is correct.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

27	3327	Slimy or ropy cream is due to excessive growth of 1. *Pseudomonas fragi* 2. *Escherichia coli* 3. *Alcaligenes viscolactis* 4. *Enterobacter faecalis* A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

28	3328		4.0	1.00

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

List-I	**List-II**
Discolouration/Off-flavour	**Causative Organism**
(A) Fruity flavour	(I) *Pseudomonas syncyanea*
(B) Blue colour	(II) *Pseudomonas synxantha*
(C) Yellow colour	(III) *Pseudomonas fragi*
(D) Greenish Colour	(IV) *Pseudomonas fluorescens*

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

29 | 3329 | 4.0 | 1.00

In a plating experiment of milk, 1 ml of each 10^{-2} and 10^{-3} dilutions were relate out in duplicate. The volume of the actual milk sample used in the experiments is

1. 4 ml
2. 0.2 ml
3. 0.22 ml
4. 0.022 ml

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

30 | 3330 | 4.0 | 1.00

Given below are two statements, one is labelled as Assertion (A) and other one labelled as **Reason (R)**.

Assertion (A) : *Clostridium tyrobutyricum* is responsible for late blowing in cheese.

Reason (R) : *Clostridium tyrobutyricum* ferments lactose and produces CO_2 leading to lak blowing in cheese.

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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

31	3331	Typical glue like odour in sweetened condensed milk is caused by _____.	4.0	1.00

1. *Proteus vulgaris*
2. *Aspergillus repens*
3. *Torulopsis globosa*
4. *Thermobacterium mathiacolle*

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

32	3332	Packaging of khoa at _____ $^{-o}$C extends its shelf life to 14-21 days at 37^{o}C.	4.0	1.00

1. 40-50
2. 80-90
3. 60-70
4. 50-60

A1 : 1

A2 : 2

A3 : 3

		A4 : 4		
Objective Question				
33	3333	'Musty potato' aroma is milk is caused by _____. 1. Achromobacter spp. 2. *Flavobacterium lactis* 3. *Pseudomonas graveolems* 4. *Pseudomonas mephetica* A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
34	3334	When cream is heat treated in excess of 121°C for 3 minutes it is termed as _____. 1. tyndallization 2. thermization 3. botulinum cook 4. flash cook A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
35	3335		4.0	1.00

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

List-I (Causative organisms)	**List-II (Indicator)**
(A) Coliforms	(I) late blowing in canned products
(B) Pseudomonas	(II) bitterness
(C) Anaerobic sporeformers	(III) faecal contamination
(D) Bacillus spp	(IV) water contamination

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

36	3336	Non acid coagulation defect in Evaporated milk is caused by 1. *Bacillus cereus* 2. *Bacillus coagulans* 3. *Geo-bacillus stearothermophilus* 4. *Bacillus subtilis* A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

37	3337		4.0	1.00

		Absence of Salmonella in ___/g of Infant Food is considered as a food safety criteria according to FSSAI regulation 1. 50 2. 125 3. 25 4. 100 A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
38	3338	The permissible limit (M) of yeast and mold count (cfu) as process hygiene criteria in chhana based sweets is 1. $1.5x10^5$ /g 2. $1.5x10^4$ /g 3. $1.5x10^1$ /g 4. $1.5x10^2$ /g A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
39	3339	Arrange the following HACCP principles in order their occurrence from first to last. (A) Identify CCPS (B) Establish monitoring system (C) Establish critical limits (D) Conduct Hazard analysis Choose the ***correct*** answer from the options given below: 1. (A), (B), (C), (D). 2. (B), (D), (C), (A). 3. (C), (A), (B), (D). 4. (D), (A), (C), (B). A1 : 1	4.0	1.00

		A2 : 2 A3 : 3 A4 : 4		
Objective Question				
40	3340	UASB stands for 1. Upflow aerobic sludge blanket 2. Uptake aerobic slime blanket 3. Uptake anaerobic slime blanket 4. Upflow anaerobic sludge blanket A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
41	3341	Koumiss has been traditionally prepared from which milk? 1. Ewe's milk 2. Mare's milk 3. Cow's milk 4. Camel's milk A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
42	3342	In the citrate metabolic pathway, reduction of diacetyl results in the formation of which compound? 1. Oxaloacetate 2. Pyruvate 3. Acetoin 4. α-acetolactate A1 : 1	4.0	1.00

		A2 : 2 A3 : 3 A4 : 4		
Objective Question				
43	3343	In a thermal treatment, 5-log reduction of orecruorganism means _____. (A) 99.949 % destruction (B) 0.001 % survival (C) 99.0 % reduction (D) 1.0 % survival Choose the ***correct*** answer from the options given below: 1. (A) and (B) 2. (C) and (D) 3. (A) and (D) 4. (B) and (C) A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
44	3344	Which test can be used to check the purity of lactic starter cultures? 1. Oxidase test 2. Catalase test 3. Indole test 4. Creatine test A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
45	3345		4.0	1.00

Given below are two statements:

Statement (I) : *Lactobacillus delbrueckii* ssp. *bulgaricus* produces D(-) lactic acid

Statement (II) : *Streptococcus thermophilus* produces L(+) lactic acid.

In 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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

46 3346

Given below are two statements:

Statement (I) : Traditional acidophilus milk is prepared by inoculating *Lactobacillus acidophilus* culture at the rate of 2–5% in autoclaved or severely boiled milk.

Statement (II) : Traditional acidophilus milk has tartness and a strong cooked flavour.

In 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.

4.0 1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

47 3347

4.0 1.00

Match the following:

List I	List II
(A) Gassiness	(I) Kefiran
(B) *Leuconostoc* sp.	(II) Implant in intestinal tract
(C) *Lactobacillus acidophilus*	(III) Cultured butter milk
(D) Polysaccharide	(IV) Kluveromyces

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

48 3348 4.0 1.00

In the sampling plan for microbiological analysis of fermented milk products by FSSAI, _____ represents an acceptable level and values above it are marginally acceptable in terms of the sampling plan.

1. N
2. c
3. M
4. m

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

49 3349 4.0 1.00

		Lactocidin is a bacteriocin-like compound produced by which organism? 1. *Lactococcus lactis* 2. *Lactobacillus casei* 3. *Lactobacillus brevis* 4. *Lactobacillus acidophilus* A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
50	3350	'Nutrifit' is a probiotic fermented milk of which country? 1. USA 2. Denmark 3. France 4. India A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
51	3351	Which cheese variety in the following involve *Brevibacterium linens* for ripening? 1. Limburger 2. Camembert 3. Cheshire 4. Gorgonzola A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
52	3352		4.0	1.00

Which pathway is used by *Streptococcus thermophilus* for galactose metabolism ?

1. Leloirs pathway
2. Tagatose 6-p-pathway
3. Phosphoketolase pathway
4. Glycolytic pathway

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

53	3353	Given below are two statements: **Statement (I) :** Leuconostocs are lactic acid bacteria containing phosphoketolase. **Statement (II) :** Leuconostocs metabolize lactose through 6-P-gluconate pathway and produce equimolar amount of CO_2, lactate and acetate/ethanol. In 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. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

54	3354	Which statement is ***not true*** in relation to Bifidobacteria? 1. Bifidobacteria are fastidious in their nutritional requirements and need bifidogenic factors for their growth 2. Bifidobacteria have a G+C content of 55 to 67% 3. Bifidobacteria are Gram-positive, catalase-positive, nonmotile, gas- producing bacteria 4. Bifidiobacteria are normal inhabitants of intestinal tract of new borns and infants A1 : 1	4.0	1.00

		A2 : 2 A3 : 3 A4 : 4		
Objective Question				
55	3355	Given below are two statements: **Statement (I) :** Lactic acid bacteria hydrolyze casein outside the cell by cell wall bound or excreted peptidases **Statement (II) :** Lactic acid bacteria hydrolyze oligopeptides into small peptides and amino acids by membrane-bound peptidases In 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. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
56	3356	Which of the following statements are **true** with respect to cultures buttermilk? (A) It is prepared using mesophilic cultures (B) 'O' – cultures are used in its manufacture (C) It is prepared using no-fat to low-fat milk (D) The curd is diluted with water after fermentation Choose the ***correct*** answer from the options given below: 1. (A), (B) 2. (A), (C) 3. (A), (D) 4. (C), (D) A1 : 1 A2 : 2 A3 : 3	4.0	1.00

A4 : 4

Objective Question

57 3357 4.0 1.00

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

List-I	List-II
(A) Starter distillate	(I) Bacteriophage
(B) Nisin	(II) Propionibacteria
(C) Calcium deficient medium	(III) Diacetyl
(D) Cobalamin	(IV) *Lactococcus lactis* ssp. *lactis*

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

58 3358 4.0 1.00

According to FSSAI rules and regulations, fermented milks, are of satisfactory quantity, if coliform count is less then _____ cfu/g

1. 50
2. 10
3. 100
4. 20

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

59 3359 4.0 1.00

Which statement is ***not true*** in relation to probiotic strains?

1. Health benefits of probiotics are strain specific
2. Probiotic culture must remain viable and stable in the product during storage
3. Probiotic products must be harmless to the consumers
4. Yoghurt starter culture possess probiotic properties

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

60	3360	Bacteriophage attack of a starter culture involve a cyle of events. Among the options which is the correct sequence of events in the lytic cycle? (A) Injection (B) Packaging/Assembly (C) Adsorption (D) RNA and Protein synthesis Choose the ***correct*** answer from the options given below: 1. (A), (B), (C), (D). 2. (A), (C), (B), (D). 3. (C), (A), (D), (B). 4. (C), (A), (B), (D). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

61	3361	The specific gravity of amyl alcohol (Grade I) at 27^{o} C to be used for fat estimation of milk by Gerber method as per BIS Method is: 1. 0.807 - 0.809 2. 0.907 - 0.909 3. 0.789 - 0.790 4. 0.907 - 1.02 A1 : 1	4.0	1.00

A2 : 2

A3 : 3

A4 : 4

Objective Question

62 | 3362 | 4.0 | 1.00

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

List-I	**List-II**
Additive	**Function**
(A) Glucono delta lactone	(I) Antioxidant
(B) Propyl Gallate	(II) Acidulant
(C) Erythrosine	(III) Emulsifier
(D) Polyglycerol esters of fatty acids	(IV) Colour

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

63 | 3363 | 4.0 | 1.00

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

List-I	List-II
Additive	**Class**
(A) A food additive, which prolongs the shelf-life of foods through free radical inhibition.	(I) Stabilizer
(B) A food additive, which prevents food from drying out by counteracting the effect of a dry atmosphere.	(II) Preservative
(C) A food additive, which prolongs the shelf-life of a food by protecting against deterioration caused by microorganisms.	(III) Humectant
(D) A food additive, which makes it possible to maintain a uniform dispersion of two or more components.	(IV) Antioxidant

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

64 3364

Given below are two statements, one is labelled as **Assertion (A)** and other one labelled as **Reason (R)**.

Assertion A : Specific gravity of whole milk increases when held at lower/cold temperature. This phenomenon is known as Recknagel phenomenon.

Reason R : Reckangel phenomenon occurs mainly due to loss of entrapped gas when milk is held at lower temperature.

In 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 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.

A1 : 1

A2 : 2

4.0 1.00

A3 : 3

A4 : 4

Objective Question

65	3365	Mixed indicator used in the titration of the distillate in MicroKjeldahl method is made up of _____ 1. Methyl orange and methylene blue 2. Methyl orange and methyl red 3. Methylene blue and bromocresol red 4. Methyl red and methylene blue A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

66	3366	Given below are two statements, one is labelled as **Assertion (A)** and other one labelled as **Reason (R)**. **Assertion (A) :** In titratable acidity determination of milk by titration method, the pink colour (phenolphthalein end point) disappears soon, whereas in normal acid-base titration, it persists for long time. **Reason (R) :** Due to alkalinity of the medium after the titration, there is a shift in the equilibrium of milk salts releasing more of hydrogen ions. In 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 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. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

67	3367		4.0	1.00

Given below are two statements:

Statement (I) : Ash represents the true salt composition of milk.

Statement (II) : Salt balance of milk is a ratio between cations (Calcium and Magnesium) and anions (Citrate and Phosphate)

In 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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question				
68	3368	In Mohr's method of salt estimation of table butter, the type of titration employed is_____ 1. Argentometric 2. Iodometric 3. Acid-base 4. Potentiometric A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
69	3369		4.0	1.00

Given below are two statements, one is labelled as **Assertion (A)** and other one labelled as **Reason (R)**.

Assertion (A) : Saponification value of ghee is relatively higher than most of the vegetable oils.

Reason (R) : The average molecular weight of the fatty acids in ghee is high and hence, ghee has a higher saponification value.

In 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 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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

70	3370		4.0	1.00

Given below are two statements, one is labelled as **Assertion (A)** and other one labelled as **Reason (R)**.

Assertion (A) : Care should be taken to test only fresh samples of milk for freezing point depression, as aged samples can actually depress the freezing point such that the presence of extraneous water could be masked.

Reason (R) : The production four molecules of lactic acid from one molecule of lactose during storage of milk increases freezing point depression.

In 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 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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

71	3371		4.0	1.00

Nitrate in milk is generally used as a marker to detect the presence of added _____.

1. Pond or surface water
2. Salicylic acid
3. Skim milk powder
4. Benzoic acid

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

72 3372 4.0 1.00

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

List-I	**List-II**
Preservative	**Reagent used in the Test**
(A) Boric Acid	(I) Stannous chloride
(B) Formaldehyde	(II) Paraphenylenediamine
(C) Hydrogen Peroxide	(III) Ferric chloride
(D) Hypochlorite	(IV) Turmeric Paper

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

73 3373 4.0 1.00

		Which of the following tests ascertain detection of adulteration of ghee with vegetable oil by RP-HPLC method? 1. Beta sitosterol test 2. Baudouin test 3. Hehner Test 4. Holde Test A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
74	3374	Given below are two statements: **Statement (I) :** Lactose in freshly prepared spray dried skim milk powder is crystalline. **Statement (II) :** Lactose in spray dried skim milk powder, upon exposure to air, undergoes crystallization, which causes caking of powder. In 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. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
75	3375		4.0	1.00

Given below are two statements, one is labelled as **Assertion (A)** and other one labelled as **Reason (R)**.

Assertion (A) : Large amount of sucrose present in sweetened condensed milk causes a defect called 'sandiness'.

Reason (R) : α-Lactose hydrate crystals in sweetened condensed are hard and not very soluble, and they feel gritty when placed in mouth, similar to sand particles. Hence, this defect is called 'sandiness'.

In 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 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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

76	3376	What is the Whey Protein Nitrogen Index (mg/mL) of low-heat skim milk powder? 1. > 6.0 2. 1 .5 – 6.0 3. < 1.5 4. 6.6 A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

77	3377		4.0	1.00

Match **List-I** with **List-II** choosing the **most appropriate** options.

List-I	**List-II**
Maillard Reaction Products	**Impact**
(A) Melanoidins	(I) Flavour
(B) Hydroxy Methyl Furfural	(II) Colour
(C) Cross-linked proteins	(III) Nutrition
(D) Lysine-glucose complex	(IV) Solubility

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

78 3378

As per the latest Food Safety and Standards (Food Product Standards and Food Additives) Regulations, 2011, effective from the First July, 2022, which of the following new standards have been added to ghee?

(A) ISO Triglyceride Analysis, Fatty acid composition, Presence of β-sitosterol and Iodine value

(B) Presence of β-sitosterol, Iodine value, Polenske value and Saponification value

(C) ISO Triglyceride Analysis, Fatty acid composition, Polenske value, Saponification value

(D) Presence of β-sitosterol, Iodine value, ISO Triglyceride Analysis, Fatty acid composition

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

4.0 1.00

A3 : 3

A4 : 4

Objective Question

79 | 3379 | 4.0 | 1.00

Given below are two statements:

Statement (I) : The fortificants permitted in liquid milk as per Food Safety and Standards (Fortification of Foods) Regulations, 2018 are Vitamin A and Vitamin D.

Statement (II) : Milk powder also can be fortified with Vitamin A and Vitamin D; but it shall only be used in the Government Funded Programs for the purpose of preparation of 'Reconstituted Fortified Milk'.

In 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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

80 | 3380 | 4.0 | 1.00

Given below are two statements:

Statement (I) : As per the Food Safety and Standards (Food Product Standards and Food Additives) Regulations, 2011, the fat content in partly skimmied milk powder shall be more than 1.5 and less than 26.0.

Statement (II) : As per the Food Safety and Standards (Food Product Standards and Food Additives) Regulations, 2011, the "partly skimmed milk powder" may be designated "semi-skimmed milk powder" if the content of milk fat does not exceed 16% (m/m) and is not less than 14% (m/m).

In 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.

		A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
81	3381	The rennet coagulation of casein during cheese making is prolonged or prevented when the temperature of milk is maintained above _____. 1. 60°C 2. 70°C 3. 50°C 4. 40°C A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
82	3382	Rate of autoxidation in ghee is measured by which of the following methods ? (A) TBA Value (B) Peroxide Value (C) Iodime Value (D) Acid Value Choose the ***correct*** answer from the options given below: 1. (A) and (D) only. 2. (D) and (C) only. 3. (A) and (B) only. 4. (B) and (C) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
83	3383		4.0	1.00

		Which of the following compounds is **NOT** used to monitor Maillard reactions in milk products? 1. Furosine 2. Lactulosyl lysine 3. Hydroxymethylfurfural 4. Octa – 2, 4–dienal A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
84	3384	Colostrum has low heat stability due to presence of high amounts of _____. 1. Sodium 2. Fat 3. Protein 4. Chloride A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
85	3385	Which of the following is **NOT** responsible for cooked flavour in case of heated milk? 1. Butyric acid 2. Sulphur compounds 3. Lactones 4. Methyl ketanes A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				

86	3386	Which of the following property is not desirable in Infant milk formulations? 1. Low moisture content 2. High solubility 3. High foaming on reconstitution 4. High flowability A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
87	3387	Oxidized off-flavours in ghee are caused mainly due to _____. (A) Aldehydes (B) Ketones (C) Hydro peroxides (D) Free fatty acids Choose the ***correct*** answer from the options given below: 1. (C) and (D) only. 2. (B) and (C) only. 3. (A) and (B) only. 4. (A) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
88	3388		4.0	1.00

		Arrange the following milk products in descending order of "heat induced changes" during their preparation. (A) Paneer (B) Khoa (C) Chakka (D) Acid casein Choose the ***correct*** answer from the options given below: 1. (A), (B), (C), (D). 2. (C), (A), (B), (D). 3. (B), (C), (A), (D). 4. (B), (A), (C), (D). A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
89	3389	Given below are two statements: **Statement (I) :** Primary phase of rennet coagulation involves hydrolysis of k-casein. **Statement (II) :** The calcium ions are essential for coagulation of casein in the secondary phase. In light of the above statements, choose the ***most appropriate*** answer from the options given below. 1. Both **Statement (I)** and **Statement (II)** are correct. 2. Both **Statement (I)** and **Statement (II)** are incorrect. 3. **Statement (I)** is correct but **Statement (II)** is incorrect. 4. **Statement (I)** is incorrect but **Statement (II)** is correct. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
90	3390		4.0	1.00

		Arrange the following whey proteins based on the order of heat stability (ascending order) measured by loss of solubility (A) α-lactalbumin (B) Immunoglobulin (C) Bovine Serum Albumin (D) β-Lactoglobulin Choose the ***correct*** answer from the options given below: 1. (A), (B), (C), (D). 2. (B), (A), (C), (D). 3. (C), (D), (A), (B). 4. (B), (C), (D), (A). A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
91	3391	Arrange the following biochemical reactions in ascending order of time taken during ripening of cheese (A) Proteolysis (B) Lactose fermentation (C) Free fatty acid production (D) Alcohol production Choose the ***correct*** answer from the options given below: 1. (A), (B), (C), (D). 2. (B), (C), (A), (D). 3. (B), (A), (C), (D). 4. (C), (B), (D), (A). A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
92	3392		4.0	1.00

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

List-I	**List-II**
Property/flavour/storage defect of ghee	**Contributing Components**
(A) Pro-oxidant	(I) Free fatty acids
(B) Antioxidant	(II) Riboflavin and light
(C) Flavour of the ghee	(III) Tocopherol
(D) Hydrolytic rancidity in ghee	(IV) Lactones and carbonyls

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

93 3393

Match **List-I** with **List-II** related to cheese manufacture.

List-I	**List-II**
Process	**Results in**
(A) Syneresis	(I) curdling of milk
(B) Cheddaring	(II) development of uniform molten glass and fibrous mass
(C) Plasticization	(III) development of fibrous or chicken-breast take feature
(D) Gelation	(IV) draining of whey

Choose the ***correct*** answer from the options given below:

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

4.0 1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

94	3394	Which of the following are true about chymosin? (A) is commonly known as rennin (B) is used in cheese industry (C) is a protease enzyme (D) is an essential amino acid Choose the ***correct*** answer from the options given below: 1. (A), (B) and (D) only. 2. (A), (B) and (C) only. 3. (A), (B), (C) and (D). 4. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

95	3395	Given below are two statements related to paneer manufacture: **Statement (I) :** The coagulum formation in paneer involves progressive removal of tricalcium phosphate from the surface of the casein after acidification. **Statement (II) :** Dispersion of casein is not stable which gets precipitated to form coagulum embeding fat into it. In light of the above statements, choose the ***most appropriate*** answer from the options given below. 1. Both **Statement (I)** and **Statement (II)** are correct. 2. Both **Statement (I)** and **Statement (II)** are incorrect. 3. **Statement (I)** is correct but **Statement (II)** is incorrect. 4. **Statement (I)** is incorrect but **Statement (II)** is correct. A1 : 1 A2 : 2 A3 : 3	4.0	1.00

A4 : 4

Objective Question

96 | 3396 | 4.0 | 1.00

Given below are two statements with respect to heat stability of milk

Statement (I) : The heat stability of concentrated milk increases considerabley upon preheating of milk.

Statement (II) : Interaction of denatured whey proteins with κ-casein and reduction of calcium ion activity during preheating are responsible for increased heat stability of concentrated milk.

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

1. Both **Statement (I)** and **Statement (II)** are correct.
2. Both **Statement (I)** and **Statement (II)** are incorrect.
3. **Statement (I)** is correct but **Statement (II)** is incorrect.
4. **Statement (I)** is incorrect but **Statement (II)** is correct.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

97 | 3397 | 4.0 | 1.00

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

List-I	**List-II**
Dried Milk Products	**Fat % (m/m)**
(A) Whole milk powder	(I) Min. 42
(B) Partially skimmed milk powder	(II) Max. 1.5
(C) Skimmed milk powder	(III) More than 1.5 and less than 26.0
(D) Cream powder	(IV) Min. 26.0 and less than 42.0

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

		A3 : 3 A4 : 4		
Objective Question				
98	3398	Which of the following are oxidized flavour defects of ghee (A) Tallowy (B) Fishy (C) Soapy (D) Metalic Choose the ***correct*** answer from the options given below: 1. (A), (B) and (C) only. 2. (A), (B) and (D) only. 3. (A), (B), (C) and (D). 4. (B), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
99	3399	Cooked flavour and brown colour in the heat desiccated dairy products are caused mainly due to _____. 1. Enzymatic browning 2. Non-enzymatic browning 3. Lipid peroxidation 4. Whey protein donaturation A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
100	3400		4.0	1.00

		Antioxidants in foods function by - (A) Inactivation of free radicals by donating hydrogen atoms (B) Chelation of prooxidant metals (C) Breakdown of hydroperoxides into non-flavourful substances (D) Inactivation of lipolytic enzymes Choose the ***correct*** answer from the options given below: 1. (B), (C) and (D) only. 2. (B) and (C) only. 3. (A), (B) and (C) only. 4. (A), (C) and (D) only. A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
101	3401	Greenish yellow colour of whey is due to the presence of ..... 1. Carotene 2. Anthocyanin 3. Chlorophyll 4. Riboflavin A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
102	3402	Milk from which species has maximum content of lactose? 1. Human 2. Cow 3. Sheep 4. Buffalo A1 : 1 A2 : 2	4.0	1.00

		A3 : 3 A4 : 4		
Objective Question				
103	3403	Given below are two statements: **Statement (I) :** Creaming is a phenomenon in which milk fat globules rise during cold storage of milk as per stoke's law. **Statement (II) :** Immunoglobulins increase the rate of creaming by forming fat globule clusters, a phenomenon called 'cold agglutination'. In 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. A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
104	3404	Corrected lactometer reading is to be determined from observed lactometer reading considering the following parameters. Select the correct combination 1. Temperature of milk & Density of milk 2. Fat % of milk & Viscosity of milk 3. Protein% of milk & Temperature of milk 4. Temperature of milk & Fat% of milk A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
105	3405		4.0	1.00

Match the enzymes in milk from **List-I** with their association in **List-II** and select correct series from the options.

List-I	List-II
A. Lipoprotein lipase	1. Mastitis indicator
B. Lactoperoxidase	2. Age gelation in UHT milk
C. Catalase	3. Homologous with alpha lactalbumin
D. Plasmin	4. Indicator of HTST pasteurisation
E. Lysozyme	5. Rancid flavour
F. Alkaline phosphatase	6. Bactericidal activity

Choose the ***correct*** answer from the options given below:

1. A-5; B-6; C-1; D-4; E-2; F-3
2. A-5; B-6; C-1; D-2; E-3; F-4
3. A-1; B-6; C-5; D-2; E-3; F-4
4. A-6; B-3; C-1; D-2; E-5; F-4

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

106 3406

Lactose intolerance is observed in individuals with deficiency of the enzyme _____.

1. Galactokinase
2. Lactose-1-phosphatase
3. Alpha lactose hydrolase
4. Beta glalctosidase

4.0 1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

107 3407

4.0 1.00

		Which of the following milk constituents scatter/reflect light for milk to appear whitish? (A) Fat (B) Lactose (C) Casein (D) Whey proteins 1. (A) and (B) 2. (A) and (C) 3. (B) and (D) 4. (C) and (D) A1 : 1 A2 : 2 A3 : 3 A4 : 4		
Objective Question				
108	3408	Which of the followings agent is used as a thickening agent in whipped cream and permitted by FSSR, zell ? 1. Carrageenan 2. Starch 3. Sodium citrate 4. Calcium chloride A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
109	3409	Which of the following is **NOT** a factor affecting keeping quality of dried milk? 1. Fat content 2. Initial moisture content 3. Temperature of storage 4. Bulk density A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question				
110	3410	Which of the following is **NOT** a source for indigenous enzymes in milk? 1. Blood plasma 2. Milk fat globule membrane 3. Somatic cells 4. Casein micelle A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
111	3411	First limiting essential amino acid in wheat and rice is …….. 1. Threonine 2. Aspartic acid 3. Lysine 4. Cysteine A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
112	3412	Among the following vegetable oils which one contains lowest amount polyunsaturated fatty acids? 1. Sunflower oil 2. Palm oil 3. Peanut oil 4. Cotton seed oil A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question				
113	3413	Which of the following represent fermentation of lactose to lactic acid by homofermentative bacteria? 1. Lactose + 1 H_3PO_4 + 1 ADP → 2 Lactic Acid + 2 ATP + 2 H_2O 2. Lactose + 4 ADP + 4 H_3PO_4 → 4 Lactic Acid + 4 ATP + 3 H_2O 3. Lactose + 2 ADP + 2 H_3PO_4 → 2 Lactic Acid + 2 ATP + 3 H_2O 4. Lactose + 3 ADP + 3 H_3PO_4 → 3 Lactic Acid + 3 ATP + 3 H_2O A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
114	3414	Which of the following indigenous enzymes in milk has capability of reactivation from an inactivated state thereby giving a false positive test during a quality check? 1. Lactoperoxidase 2. Plasmin 3. Xanthine oxidase 4. Alkaline phosphatase A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00
Objective Question				
115	3415		4.0	1.00

Given below are two statements, one is labelled as **Assertion (A)** and other one labelled as **Reason (R)**.

Assertion (A) : The redox potential (Eh) of cheese and fermented milk products is more negative than that of milk.

Reason (R) : A rapid decrease in Eh occurs after the available oxygen has been consumed by the bacteria.

In 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 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.

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

116	3416	A^1 and A^2 milk differ in the amino acid residue at 67^{th} position in bovine β-CN. In the following options which is the correct statement regarding amino acid residues at 67^{th} position? 1. A^2 - Histidine; A^1 - Proline 2. A^2 - Proline; A^1 - Histidine 3. A^2 - Methionine; A^1 - Proline 4. A^2 - Histidine; A^1 - Methionine A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00

Objective Question

117	3417	Pectin is a polysaccharide which is a polymer of _____. 1. Fructose 2. Glucose 3. Maltose 4. Galacturonic acid	4.0	1.00

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

118 | 3418 | 4.0 | 1.00

Match between milk constituents under **List-I** and most relevant biological activity under **List-II**. Choose the correct answer from the options given below:

List-I	**List-II**
(Constituent in milk)	**(Most relevant biological activity)**
(A) Conjugated Linoleic acid	(I) Antimicrobial
(B) Lactoferrin	(II) Vitamin carrier
(C) β - Lactoglobulin	(III) Lactose biosynthesis
(D) α - Lactalbumin	(IV) Anticarcinogenic

Choose the ***correct*** answer from the options given below:

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

A1 : 1

A2 : 2

A3 : 3

A4 : 4

Objective Question

119 | 3419 | 4.0 | 1.00

Which of the following proteins has highest biological value.

1. Casein
2. Soy protein
3. Whey proteins
4. Gluten

A1 : 1

A2 : 2

		A3 : 3 A4 : 4		
Objective Question				
120	3420	Which of the following are the principal precursors for milk fatty acid synthesis in the mammary gland? 1. Acetate and beta-hydroxy butyrate 2. Propionic acid and citric acid 3. Cholesterol and Molonyl CoA 4. Amino acids and citric acid A1 : 1 A2 : 2 A3 : 3 A4 : 4	4.0	1.00