

PROVISIONAL ANSWER KEY

Question 28/2026/OL

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Department Kerala Co Operative Milk Marketing Federation Ltd

Question1:-

Which of the following is major whey protein?

A:-

Kappa-casein

B:-

α -lactalbumin

C:-

β -lactoglobulin

D:-

β -casein

Correct Answer:- Option-C

Question2:-

During hydrogenation, _____ is converted into _____.

A:-

Oleic acid, Linoleic acid

B:-

Linoleic acid, Linolenic acid

C:-

Palmitic acid, Stearic Acid

D:-

Oleic acid, Stearic Acid

Correct Answer:- Option-D

Question3:-

The following amino acid is involved in the formation of disulfide bonds in protein structure

A:-

Methionine

B:-

Alanine

C:-

Cysteine

D:-

Threonine

Correct Answer:- Option-C

Question4:-

In milk proteose peptone fraction is present. Which of the following statement is true?

A:-

Proteose-peptone fraction in milk is mainly derived from β -casein

B:-

Proteose-peptone fraction in milk is mainly derived from whey proteins

C:-

Proteose-peptone fraction is released from milk proteins due to the action of rennet

D:-

Proteose-peptone fraction is responsible for enhancing the shelf life of milk

Correct Answer:- Option-A

Question5:-

With respect to whey proteins in milk, choose the incorrect statement

A:-

whey proteins are a heterogeneous family of phosphoproteins

B:-

β -lactoglobulin is a major whey protein in cow milk

C:-

α -lactalbumin is necessary for the synthesis of lactose by its interaction with galactosyl transferase

D:-

Immunoglobulins are a part of whey proteins

Correct Answer:- Option-A

Question6:-

Which of the following component of milk salt system is completely present in dissolved state?

A:-

Chloride

B:-

Magnesium

C:-

Calcium

D:-

Phosphorus

Correct Answer:- Option-A

Question7:-

Read the below mentioned statements

(i) Koestler number is an indirect indicator of mastitis in dairy cows

(ii) A Koestler Number < 2 indicates normal milk while a value > 3 is considered abnormal

Choose the **correct** option

A:-

Only statement (i) is correct

B:-

Only statement (ii) is correct

C:-

Both statements (i) and (ii) are correct

D:-

Both statements (i) and (ii) are incorrect

Correct Answer:- Option-C

Question8:-

During ripening of cheese, dephosphorylation of casein occurs mainly due to the activity of enzyme

A:-

Alkaline phosphatase

B:-

Acid phosphatase

C:-
Proteases

D:-

Xanthine oxidase

Correct Answer:- Option-B

Question9:-

Which of the following statement is/are **correct** about unsaponifiable matter in ghee?

- (i) Cholesterol is a part of unsaponifiable matter in ghee
(ii) Fat soluble vitamins are part of unsaponifiable matter in ghee
(iii) Monoglycerides are part of unsaponifiable ^{matter} in ghee

A:-

Only (i) and (ii)

B:-

Only (i) and (iii)

C:-

Only (ii) and (iii)

D:-

All of the above (i), (ii) and (iii)

Correct Answer:- Option-A

Question10:-

How much percentage is contributed by saturated fatty acid in milk fat?

A:-

Less than 50%

B:-

65 - 67%

C:-

25 - 30%

D:-

Less than 10%

Correct Answer:- Option-B

Question11:-

Read the below mentioned statements :

- (i) Phospholipids are a class of lipids consisting of phosphoric acids, nitrogen base, alcohol and fatty acids.
(ii) Fatty acids in phospholipids are usually short chain.

Choose the **correct** option

A:-

Only statement (i) is correct

B:-

Only statement (ii) is correct

C:-

Both statements (i) and (ii) are correct

D:-

Both statements (i) and (ii) are incorrect

Correct Answer:- Option-A

Question12:-

Read the below mentioned statements

(i) Calcium in the milk is mainly present in colloidal form

(ii) Colloidal form of calcium is mainly associated with casein micelle through alanine

Choose the **correct** option

A:-

Only statement (i) is correct

B:-

Only statement (ii) is correct

C:-

Both statements (i) and (ii) are correct

D:-

Both statements (i) and (iii) are incorrect

Correct Answer:- Option-A

Question13:-

With respect to non-protein nitrogen in milk, which of the following statement is **incorrect**?

A:-

Nitrogen soluble in 12% TCA is referred to as non-protein nitrogen

B:-

Uric acid is part of non-protein nitrogen

C:-

Urea is part of non-protein nitrogen

D:-

Proteose-peptones are part of non-protein nitrogen

Correct Answer:- Option-D

Question14:-

Read the below mentioned statements :

- (i) The major dietary form of vitamin D obtained from foods of animal origin is cholecalciferol
- (ii) Cholecalciferol is also known as vitamin D2
- (iii) The principal physiological role of vitamin D in the body is to maintain the level of plasma calcium by stimulating its absorption from the gastrointestinal tract

Choose the **correct** option

A:-

Only (i) and (ii) are correct

B:-

Only (i) and (iii) are correct

C:-

Only (ii) and (iii) are correct

D:-

All of the above (i), (ii) and (iii) are correct

Correct Answer:- Option-B

Question15:-

Which of the following can be used as an index of heat treatment of milk?

A:-

Decrease in Urea content

B:-

Extent of Lactose crystallization

C:-

Formation of Lactulose content

D:-

Formation of Lactobionic acid

Correct Answer:- Option-C

Question16:-

Which of the following statement/s is/are CORRECT?

- (i) Leptin is a growth factor present in human milk.
- (ii) Leptin, a metabolic hormone in human milk, is linked with appetite regulation and energy balance in infants.
- (iii) Leptin is a bioactive peptide found in bovine colostrum in higher amount with levels decreasing in mature milk.
- (iv) Leptin is a bioactive lipid present in human as well as bovine milk.

A:-

Only (i)

B:-

Only (ii)

C:-

Only (ii) and (iii)

D:-

All of the above except (iv)

Correct Answer:- Option-B

Question17:-

Which of the following statements is CORRECT?

A:-

Feathering is primarily a fat-related defect in whole milk powder

B:-

Feathering is mainly a protein instability defect in reconstituted milk

C:-

Cakiness and feathering both are the defects of milk powder and are the same thing

D:-

Feathering in reconstituted milk is mainly a lactose crystallization defect, but it becomes visible due to the clustering of fat globules during reconstitution

Correct Answer:- Option-B

Question18:-

Which of the following statement/s is/are CORRECT?

(i) Evaporated Milk has added lactose, whereas, Sweetened Condensed Milk (SCM) has added sucrose.

(ii) Salt balance refers to the ratio of salts of $(Ca+Mg)/(Citrate+Phosphates)$.

(iii) Salt balance is disturbed during preparation of SCM or evaporated milk and therefore, calcium chloride and/or magnesium chlorides are added in it to prevent age gelation during storage.

(iv) Trisodium citrate or disodium phosphate are added as stabilizers in evaporated milk to correct the increased levels of Ca and Mg.

A:-

Only (i) and (ii)

B:-

Only (iii) and (iv)

C:-

Only (ii) and (iii)

D:-

Only (ii) and (iv)

Correct Answer:- Option-D

Question19:-

During storage of sweetened condensed milk, Maillard browning is accelerated mainly due to

A:-

High protein-lactose content

B:-

High content of crystalline sugar (sucrose)

C:-

High content of phospholipids and fat content

D:-

High content of added amino acids as stabilizers

Correct Answer:- Option-A

Question20:-

Which of the following statement is CORRECT?

A:-

The lactose content is higher in human milk than in bovine milk

B:-

Whey :Casein ratio is adjusted to 30:70, while preparing infant formula from bovine milk

C:-

Human milk has similar minerals (ash) content as cow milk.

D:-

The ratio of casein to whey protein in human milk is 60:40

Correct Answer:- Option-A

Question21:-

On heating, heat stability of milk is increased due to :

A:-

Solubilization of calcium phosphate and shift from CCP to calcium ions

B:-

Insolubilization of calcium phosphate and shift from soluble Ca to CCP

C:-

Solubilization of casein micelles correcting salt balance

D:-

Solubilization of whey proteins and further association with colloidal calcium phosphate (CCP)

Correct Answer:- Option-B

Question22:-

Which of the following statement is CORRECT?

A:-

β -lactoglobulin is the primary protein in cheese that undergoes proteolysis during ripening

B:-

In blue-veined cheese, the characteristic lipolysis is mainly caused by *Penicillium roqueforti* and not by starter lactic acid bacteria

C:-

In ripened cheese, 'Umami' taste is contributed by the unique flavoring compound i.e. butyric acid

D:-

During ripening of Cheddar cheese, bitterness is often associated with an accumulation of basic amino acids

Correct Answer:- Option-B

Question23:-

Which enzyme is primarily responsible for the initial breakdown of β -casein in Cheddar cheese ripening?

A:-

Plasmin

B:-

Chymosin (rennet)

C:-

Carboxypeptidase

D:-

Lipase

Correct Answer:- Option-A

Question24:-

Which of the following protein is primarily hydrolysed during the rennet coagulation of milk during cheese making?

A:-

α -casein

B:-

β -casein

γ -casein C:-

K -casein D:-

Correct Answer:- Option-D

Question25:-

Which of the following statements is INCORRECT?

A:-

The characteristic flavour of cultured buttermilk is mainly due to diacetyl produced by *Lactococcus lactis*

B:-

Streptococcus thermophilus and *Lactobacillus delbrueckii subsp. bulgaricus* are the two main bacteria in yogurt fermentation

C:-

Kefir and Koumiss are fermented drinks, contain approximately 4 and 9% ethanol, respectively, which is produced by lactic acid bacteria

D:-

Ricotta is a whey cheese made from either whey alone or a mixture of whey and milk or cream

Correct Answer:- Option-C

Question26:-

To determine the oxidative stability of ghee or butter, the following parameters should be tested :

A:-

Peroxide value, p-anisidine value, TBA value

B:-

Free fatty acids, Saponification value, BR reading

C:-

Free fatty acids, Reichert-Meissl value, Iodine value

D:-

Peroxide value, Free fatty acids, Acid value

Correct Answer:- Option-A

Question27:-

There are four ghee samples (T1-T4) having different RM and BR values (Reichert-Meissl value : RM; Butyro-refractometer reading : BR) as follows :

T1 : RM = 30, BR = 42

T2 : RM = 26, BR = 40

T3 : RM = 24, BR = 44

T4 : RM = 21, BR = 37

Keeping in mind the standards prescribed by FSSAI, which sample has the highest probability of being adulterated with hydrogenated vegetable oil or animal body fat?

A:-

T1

B:-

T2

C:-

T3

D:-

T4

Correct Answer:- Option-D

Question28:-

To neutralize sour cream having high SNF and high acidity (>0.45% lactic acid) for butter making, which of the following is desirable :

A:-

Single neutralization using sodium bicarbonate

B:-

Double neutralization using calcium hydroxide followed by sodium bicarbonate

C:-

Double neutralization using sodium bicarbonate followed by calcium hydroxide

D:-

Single neutralization using excess of sodium hydroxide

Correct Answer:- Option-B

Question29:-

Which of the following statement/s is/are CORRECT in respect of ice cream :

- (i) Antifreeze proteins bind to small ice crystals and inhibit their growth during temperature fluctuations and storage
- (ii) Ice structuring proteins bind to large ice crystals and disintegrate them, producing smooth-textured ice cream during storage.
- (iii) Antifreeze proteins inhibit ice recrystallization, thus preventing a "grainy" texture in ice cream.
- (iv) Antifreeze proteins cause a depression in freezing point of water and thus prevent the melting of ice cream during temperature fluctuations.

A:-

Only (i) and (iii)

B:-

Only (ii)

C:-

Only (iv)

D:-

Only (ii) and (iv)

Correct Answer:- Option-A

Question30:-

Aging of ice cream mix is essential mainly for

A:-

Hydration of proteins and development of tiny lactose crystals

B:-

Dissolution of stabilizer and crystallization of fat

C:-

Stable emulsion formation and dissolution of fat

D:-

Crystallization of fat and hydration of proteins

Correct Answer:- Option-D

Question31:-

As per the methods prescribed in FSSAI, consider the following statements for cheese sampling

1. Large blocks of cheese must be used from multiple locations to draw a representative sample of cheese
2. The cheese sample should be stored at 10 to 12°C

3. The rind of cheese must be always excluded, to avoid bias in analytical results.

4. Intensive grating or kneading is advisable, in case sample cannot be grated due to some reasons.

Which of the given statements are correct?

A:-

1 and 2

B:-

1, 2 and 3

C:-

1, 2 and 4

D:-

1, 2, 3, 4

Correct Answer:- Option-C

Question32:-

Quality Council of India was set up as PPP model as an independent autonomous organization with the support of

1. Government of India
2. Associated chambers of commerce and industry of India (ASSOCHAM)
3. Confederation of Indian Industry (CII)
4. Federation of Indian Chambers of Commerce and Industry (FICCI)

Which of the following is correct?

A:-

Only 1 and 2

B:-

All (1, 2, 3 and 4)

C:-

1, 2 and 4

D:-

2, 3 and 4

Correct Answer:- Option-B

Question33:-

Which Management cycle is most closely associated with Kaizen philosophy?

A:-

PERT-CPM

B:-

DMAIC

C:-

SWOT

D:-

PDCA

Correct Answer:- Option-D

Question34:-

Which of the following reflects the application of "Process approach" under TQM in Dairy Industry?

A:-

Increasing milk procurement pricing for farmers

B:-

Crucially monitoring microbial counts

C:-

Controlling CCP's such as temperature and time during process and CIP operations

D:-

Correct Answer:- Option-C

Question35:-

The primary objective of HACCP is

A:-

Identifying and control food safety hazards during processing

B:-

To inspect final product for defects

C:-

Improve food product marketing and branding

D:-

Reduce production cost

Correct Answer:- Option-A

Question36:-

Which of the following functions is exclusive under the APEDA as its statutory mandate?

1. APEDA is responsible for fixing standards and specifications for processed products meant for export purposes.
2. It also provides financial assistance for export development, infrastructure and quality improvement
3. APEDA issues FSSAI food safety licenses required for domestic sale in Indian markets
4. It registers exporters of scheduled products

Which of the above statements are correct?

A:-

1 and 2

B:-

1, 2 and 3

C:-

1, 2 and 4

D:-

2 only

Correct Answer:- Option-C

Question37:-

Which statement is mandatory for milk powder label intended for consumer / retails sale?

A:-

Reconstitute by adding warm water

B:-

Contains milk-allergen declaration

C:-

Recommended for children only

D:-

To be used within 24 hours after opening

Correct Answer:- Option-B

Question38:-

Which of the following statements describe appropriately the role of AGMARK in ghee grading and certification?

1. AGMARK prescribes quality standards and grading requirements for ghee
2. AGMARK certification is voluntary
3. AGMARK ghee must conform to prescribed physico-chemical parameters
4. The certification assures quality but does not replace food safety licensing

Which of the above-mentioned statements are correct?

A:-

1 and 2

B:-

2 and 4

C:-

All (1, 2, 3 and 4)

D:-

1, 2 and 3

Correct Answer:- Option-C

Question39:-

The main mandate of GMP is focused on

A:-

Inspection of final products

B:-

Increasing production speed

C:-

Reduction of product pricing

D:-

Consistency in production of products under hygienic environment

Correct Answer:- Option-D

Question40:-

According to FSSAI Guidelines, a Quality Control Laboratory of dairy must ensure

A:-

Availability of advanced research equipment only

B:-

Exclusive testing of final products

C:-

Outsourcing of all testing activities to external laboratories

D:-

Adequate infrastructure, trained personnel, and validated test procedures

Correct Answer:- Option-D

Question41:-

Assertion (A) : Calibration of milk testing glassware must be carried out using distilled water at a specified reference temperature.

Reason (R) : Volume markings on glassware are influenced by thermal expansion of both liquid and glass.

A:-

Both A and R are true and R is the correct explanation of A

B:-

Both A and R are true but R is not the correct explanation of A

C:-

A is true but R is false

D:-

A is false but R is true

Correct Answer:- Option-A

Question42:-

Which of the following statements regarding detection of neutralizers in milk are correct?

- (i) Rosalic acid test detects alkaline substances added to milk
- (ii) Sodium carbonate raises the titratable acidity of milk
- (iii) Neutralizers may mask spoilage during platform tests

A:-

Only (i) and (iii)

B:-

Only (i) and (ii)

C:-

Only (ii) and (iii)

D:-

(i), (ii) and (iii)

Correct Answer:- Option-A

Question43:-

Migration testing of dairy packaging materials is primarily performed to assess :

A:-

Mechanical strength of packaging

B:-

Barrier properties against oxygen

C:-

Transfer of harmful substances into food

D:-

Biodegradability of the packaging material

Correct Answer:- Option-C

Question44:-

Antibiotic residues in milk are of concern mainly because they :

A:-

Reduce fat content of milk

B:-

Interfere with starter culture activity

C:-

Increase acidity during storage

D:-

Improve keeping quality

Correct Answer:- Option-B

Question45:-

Consider the following statements related to UV spectrophotometry :

(i) Chromophores absorb radiation in the UV-Visible region

(ii) Deviations from Beer-Lambert law occur at high analyte concentrations

(iii) Path length has no influence on absorbance which is/are correct?

A:-

Only (i) and (ii)

B:-

Only (i) and (iii)

C:-

Only (ii) and (iii)

D:-

(i), (ii) and (iii)

Correct Answer:- Option-A

Question46:-

Which analytical approach provides **highest specificity** for confirmation of pesticide residues in dairy products?

A:-

UV-Visible spectrophotometry

B:-

ELISA screening assays

C:-

GC coupled with selective detectors

D:-

TLC with visual detection

Correct Answer:- Option-C

Question47:-

The principal advantage of High Performance Liquid Chromatography (HPLC) over TLC in dairy analysis is its :

A:-

Lower solvent requirement

B:-

Qualitative nature

C:-

Higher resolution and sensitivity

D:-

Simpler sample preparation

Correct Answer:- Option-C

Question48:-

Heavy metals such as lead and cadmium in milk are most accurately quantified using :

A:-

Flame photometry

B:-

Atomic absorption spectrophotometry

C:-

UV spectrophotometry

D:-

ELISA

Correct Answer:- Option-B

Question49:-

Laboratory auditing in a dairy quality control laboratory primarily ensures :

A:-

Increase in production efficiency

B:-

Compliance with documented quality systems

C:-

Reduction in equipment cost

D:-

Faster analytical methods

Correct Answer:- Option-B

Question50:-

Food traceability systems in the dairy sector are mainly intended to

A:-

Improve sensory quality of products

B:-

Increase shelf life

C:-

Track product history from farm to consumer

D:-

Reduce processing losses

Correct Answer:- Option-C

Question51:-

A sample of heat treated cream was found to have high numbers of micrococci, staphylococci and lactobacilli. Identify the reason for such high count observed in cream.

- I. Cream was stored prolong at 5°C
- II. Cream was contaminated and not immediate cooled after heat treatment
- III. Psychotropic count was higher initially
- IV. There was post production contamination of the cream may be due to utensils and environment.

A:-

Only II and IV

B:-

Only I

C:-

Only I, III and IV

D:-

Only I and IV

Correct Answer:- Option-A

Question52:-

Which of the following produces phospholipase in stored raw milk have potential to exaggerate the problem of rancidity by damaging phospholipids and exposing the globule triglycerides to lipase action?

A:-

Mesophiles

B:-

Psychrotrophs

C:-

Thermophilies

D:-

Thermodurics

Correct Answer:- Option-B

Question53:-

Which of the following statements are corrects regarding Lactoperoxidase-Thiocynate-Hydrogen Peroxidase system?

- I. Lactoperoxidase is an enzyme which is naturally secreted in milk
- II. Thiocynate is the substrate for Superoxidase enzyme present in varying concentrations in milk
- III. Amount of thiocyanate in milk depends on the health of the animal
- IV. Third component is hydrogen peroxide which acts as a catalyst and it is supplied by streptococci and lactobacilli present within an under

A:-

Only III and IV

B:-

Only I

C:-

Only I, III and IV

D:-

Only I and IV

Correct Answer:- Option-D

Question54:-

Which of the following statements are false for Thermophilic microflora?

- I. Thermophilic microorganism are those which survive but can grow at pasteurization temperatures.
- II. The count of ^{this} group is determined by plating the milk after laboratory pasteurization (63°C for 30 min) on Skim Milk Agar and incubating plates at 37°C for 48-72 Hrs.
- III. Among the major group present in milk, Microbacterium shows 80% resistance to pasteurization.
- IV. This group microbacterium comes in milk through improperly cleaned utensils.

A:-

Only II and III

B:-

Only II

C:-

Only I, II and III

D:-

Only I and IV

Correct Answer:- Option-C

Question55:-

Arrange the following membrane processes based on membrane pore size in descending order

- I. Nanofiltration
- II. Microfiltration
- III. Ultrafiltration
- IV. Reverse Osmosis

A:-

I, II, III, IV

B:-

IV, I, II, III

C:-

III, II, IV, I

D:-

IV, I, III, II

Correct Answer:- Option-D

Question56:-

As per FSSAI milk and milk products are usually fortified with which vitamin?

A:-

Vitamin A and B

B:-

Vitamin A and D

C:-

Vitamin C

D:-

None of these

Correct Answer:- Option-B

Question57:-

Bacteria that are pathogenic for humans are classified as

A:-

Mesophiles

B:-

Thermophiles

C:-

Psychotropic

D:-

Thermotolerant

Correct Answer:- Option-A

Question58:-

Identify which of the mentioned statement/s is/are true?

- I. Food already containing synthesized toxins responsible for food poisoning symptom is called intoxication and example of such pathogen is Staphylococcus aureus.
- II. Ingestion of viable pathogen along with food and their adhesion to organs is called food infection and example is Salmonella typhi.
- III. Organisms enter along with food and produce toxin in-situ is called toxigenic infection and example is Bacillus cereus.
- IV. Food poisoning caused by E. coli comes under food intoxication.

A:-

Only II and III

B:-

Only II

C:-

I, II and III, IV

D:-

Only I and IV

Correct Answer:- Option-C

Question59:-

If water content in butter is 15% and salt added @ 2.3%, the salt when dissolved in water will give a concentration of

A:-

12.50

B:-

16.00

C:-

15.33

D:-

19.00

Correct Answer:- Option-C

Question60:-

Three samples of evaporated milk were examined for defects. Details of these defects are :

Sample 1 : Observed gas production with undesirable foul smell

Sample 2 : Observed break down of protein bitter taste

Sample 3 : Observed breakdown of protein with fishy flavour

Choose the correct defect and causative agents from listed below :

I. Sample 1 showed gassy fermentation it may be due to Micrococci and lactobacilli

II. Sample 2 showed bitterness defect and it may be due to Aerobic spore formers like *B. Cereus*

III. Sample 3 showed Fishy flavour defect and due to *Pseudomonas ichthyosmus*

A:-

II and III

B:-

I only

C:-

IV and I

D:-

I, II and III only

Correct Answer:- Option-A

Question61:-

Steps for instantization of Milk powder are mentioned. Arrange these steps in ascending order of its occurrence.

- I. Re-drying with hot filtered air
- II. Agglomeration where particle collides and for clusters
- III. Wetting the surface of particle with steam or atomized water
- IV. Colling of the particles

A:-

IV, III, I, II

B:-

III, II, IV, I

C:-

I, II, III, IV

D:-

III, II, I, IV

Correct Answer:- Option-D

Question62:-

Stabilization of salt is necessary when buffalo milk is used for production of Sweetened Condensed milk because

- I. Buffalo milk content higher Calcium salt
- II. Buffalo milk have incorrect salt balance ratio of 0.7 : 1.0
- III. Buffalo milk content lower amount of calcium and higher Magnesium
- IV. Buffalo milk have higher CNF than cow milk

Which statement/s is/are correct?

A:-

III only

B:-

I and II only

C:-

IV only

D:-

I only

Correct Answer:- Option-B

Question63:-

Starter distillates are added in butter for flavour production. Here are some statement mentioned below. Choose correct statement/s from the options provided.

- I. The non-volatile flavour compounds obtained from liquid starter by steam distillation are called starter distillates.
- II. In growth medium maximum amount of acetaldehyde accumulated by the culture gets oxidized into diacetyl during distillation
- III. Generally distillate is added @ 3-7 mg diacetyl/ml of the distillate during butter production process

A:-

III, I, II

B:-

III only

C:-

II, III

D:-

II and I

Correct Answer:- Option-B

Question64:-

FSSAI standards for ice cream is given below; Identify which standards are correct as per the authority.

- I. Total-plate count must be within 1×10^5 (m) to 2×10^5 (M) cfu/g
- II. Coliform count must be within 10(m) to 100 (M) cfu/g
- III. *Listeria monocytogenes* must be absent in 1 g of sample (M)
- IV. *E.coli* must be absent in 1 g of sample (M)

A:-

II and III only

B:-

I, II, III, IV

C:-

IV and I only

D:-

I, II only

Correct Answer:- Option-B

Question65:-

Below are some statements regarding to bacterial thickening of Sweetened Condensed Milk. Identify the wrong statement/s.

- I. Bacterial thickening of Sweetened Condensed Milk leads to disagreeable creamy taste and odour
- II. Thickened product when diluted with water and heated the curd separates distinguish from heat or age thickening
- III. This is due to the production of rennin like enzyme by organisms, which acts on milk carbohydrates
- IV. Responsible organisms are *Micrococcus pyogenes*, *S. aureus*, *S. albus*, *B. Subtilis* and Certain yeasts

A:-

II and III

B:-

I and III

C:-

I, II and III

D:-

IV only

Correct Answer:- Option-B

Question66:-

Primary metabolites are generally produced in _____ phase as well as secondary metabolites are produced in _____ phase of bacterial growth in foods.

A:-

Lag and Log

B:-

Death and Stationery

C:-

Lag and Stationery

D:-

Log and Death

Correct Answer:- Option-C

Question67:-

Time required to kill 90% organisms is called

A:-

D value

B:-

F value

C:-

Z value

D:-

None of the above

Correct Answer:- Option-A

Question68:-

Most widely used ionizing radiation in food processing are

A:-

Alpha

B:-

Beta

C:-

Gamma

D:-

All of the above

Correct Answer:- Option-C

Question69:-

Radiation sterilization is also called _____

A:-

Radurization

B:-

Radappertization

C:-

Radicidation

D:-

Irradtion

Correct Answer:- Option-B

Question70:-

Fermentation comes from the Latin verb *fevere*, which means to

A:-

Cool

B:-

Heat

C:-

Boil

D:-

Pasteurize

Correct Answer:- Option-C

Question71:-

In downstream processing, _____ is carried out at the end of fermentation.

A:-

Culture preparation

B:-

Raw material pre-treatment

C:-

Sterilization of media

D:-

Recovery of molecules

Correct Answer:- Option-D

Question72:-

A food product that has a water activity below that which is require for the growth of microorganisms and IMF have a water activity between _____

A:-

0.45-0.65

B:-

0.25-0.35

C:-

0.75-0.95

D:-

0.6-0.9

Correct Answer:- Option-D

Question73:-

Illness occurs as a consequence of ingesting a preformed bacterial or mold toxin because of its growth in a food, is termed as _____

A:-

Toxicoinfection

B:-

Pathogenicity

C:-

Infection

D:-

Intoxication

Correct Answer:- Option-D

Question74:-

Colicin is produced by

A:-

E. coli

B:-

L. acidophilus

C:-

L. lactis ssp lactis

D:-

None of the above

Correct Answer:- Option-A

Question75:-

The 12D concept is a food safety standard in canning, ensuring thermal processing reduces deadly _____ spores by 12 log cycles (a factor of 10^{12}) for low-acid foods.

A:-

Clostridium tyrobutyricum

B:-

Clostridium perfringens

C:-

Clostridium tetani

D:-

Clostridium botulinum

Correct Answer:- Option-D

Question76:-

Chitin (poly-(β -1 $\rightarrow$ 4)-2-amino-2-deoxy-d-glucopyranose) is the major source of chitosan, which is obtained by removing the _____ from chitin.

A:-

Acetyl group (CH_3CO)

B:-

Methyl group (CH_3)

C:-

Ethyl group ($-\text{C}_2\text{H}_5$)

D:-

Carbon di oxide group (CO_2)

Correct Answer:- Option-A

Question77:-

Violet Red Bile Agar media is solely used for the enumeration of _____ bacteria.

A:-

Gram positive

B:-

Gram negative

C:-

Acid fast

D:-

Sulphur reducing

Correct Answer:- Option-B

Question78:-

Spore-forming bacteria, produce large amounts of _____ a unique molecule in their dormant spores that's crucial for extreme heat resistance and DNA protection.

A:-

Potassium Dipicolinate

B:-

Magnesium Dipicolinate

C:-

Ferric Dipicolinate

D:-

Calcium Dipicolinate

Correct Answer:- Option-D

Question79:-

Nisin is effective against _____ bacteria applied in food biopreservation.

A:-

Gram positive

B:-

Gram negative

C:-

Pathogenic

D:-

Spoilage causing

Correct Answer:- Option-A

Question80:-

Illness occurs from ingesting a large number of viable cells of some pathogenic bacteria through contaminated food and water and the bacterial cells either sporulate or die and release toxins to produce the symptoms, is termed as _____

A:-

Toxicoinfection

B:-

Infection

C:-

Intoxication

D:-

Toxins

Correct Answer:- Option-A

Question81:-

Moisture content of dried starter culture must be _____

A:-

10-12%

B:-

10%

C:-

5-10%

D:-

<3%

Correct Answer:- Option-D

Question82:-

Bacteriophages are viruses that attack bacteria and are highly _____ specific.

A:-

Temperature

B:-

Host

C:-

pH

D:-

All of these

Correct Answer:- Option-B

Question83:-

Proteinaceous compounds produced by bacteria which are inhibitory to many bacterial species are known as

A:-

Mucin

B:-

Exopolysaccharide

C:-

Bacteriocin

D:-

All of these

Correct Answer:- Option-C

Question84:-

In the _____, the starter culture transfer from one container to another relies on squeezing the polythene bottle to eject the culture.

A:-

Lewis system

B:-

Jones system

C:-

Tetra Pak system

D:-

Alfa-Laval system

Correct Answer:- Option-A

Question85:-

Phage inhibitory/Phage resistant medium contain chelating agents that binds _____ions

A:-

Calcium and Magnesium

B:-

Phosphates and Citrates

C:-

Potassium and citrates

D:-

Sodium and ammonium

Correct Answer:- Option-A

Question86:-

The type of starter culture in which more than two strains in known proportion are used is _____.

A:-

Mixed strain

B:-

Multiple mixed strain

C:-

Paired compatible strain

D:-

Paired strain

Correct Answer:- Option-B

Question87:-

The type of starter operating system that deliberately exposes the cultures to phages for production of phage resistant mutants

A:-

Rotational

B:-

Non-rotational

C:-

Dutch P/L system

D:-

NIZO

Correct Answer:- Option-C

Question88:-

The aroma compound produced by lactic acid bacteria that have antimicrobial activity is _____.

A:-

Diacetyl

B:-

Nisin

C:-

Pediocin

D:-

Hydrogen peroxide

Correct Answer:- Option-A

Question89:-

The method of starter preservation in which water content is removed by freezing followed by sublimation

A:-

Vacuum drying

B:-

Freeze drying

C:-

Spray drying

D:-

Deep freezing

Correct Answer:- Option-B

Question90:-

Exopolysaccharide Kefiran contains D-glucose and D-galactose in ratio _____.

A:-

1:2

B:-

2:1

C:-

3:1

D:-

1:1

Correct Answer:- Option-D

Question91:-

Which of the following correctly matches the ISO 9000 family standards with their primary purpose?

A:-

ISO 9000 - Requirements for certification

ISO 9001 - Guidelines for performance improvement

ISO 9004 - Fundamentals and vocabulary

B:-

ISO 9000 - Fundamentals and vocabulary

ISO 9001 - Requirements for a quality management system

ISO 9004 - Guidelines for performance improvement

C:-

ISO 9000 - Audit guidelines

ISO 9001 - Fundamentals and vocabulary

ISO 9004 - Requirements for certification

D:-

ISO 9000 - Product testing standards

ISO 9001 - Process validation guidelines

ISO 9004 - Audit principles

Correct Answer:- Option-B

Question92:-

A processing step may be considered a Critical Control Point (CCP) when :

A:-

A hazard can be detected at the step

B:-

No further step exists to eliminate or reduce the hazard to an acceptable level

C:-

Monitoring is easy to perform

D:-

The step affects product quality

Correct Answer:- Option-B

Question93:-

HARPC stands for _____.

A:-

Hazard Assessment and Risk Prevention Control

B:-

C:-

Hazard Analysis and Risk-Based Preventive Controls

D:-

Hazard Analysis and Regulatory Preventive Compliance

Correct Answer:- Option-C

Question94:-

Which statements regarding Operational Prerequisite Program-OPRPs are TRUE?

1. OPRPs control significant hazards
2. OPRPs have action criteria
3. OPRPs always replace CCPs
4. OPRPs require monitoring

A:-

1 and 2 only

B:-

2 and 3 only

C:-

1, 2 and 4 only

D:-

1, 2, 3 and 4

Correct Answer:- Option-C

Question95:-

Which class II BSC type has 100% exhaust air (no recirculation)?

A:-

Type A1

B:-

Type A2

C:-

Type B1

D:-

Type B2

Correct Answer:- Option-D

Question96:-

A key confirmatory test for *S. aureus* in ISO 6882-2 is _____.

A:-

Catalase test

B:-

Oxidase test

C:-

Coagulase test

D:-

Indole test

Correct Answer:- Option-C

Question97:-

TSI agar contains which of the following sugars?

A:-

Glucose, lactose, fructose

B:-

Glucose, lactose, sucrose

C:-

Lactose, sucrose, maltose

D:-

Glucose, mannose, lactose

Correct Answer:- Option-B

Question98:-

Which of the following is the basis of the VIDAS principle?

A:-

PCR amplification

B:-

Chromatography

C:-

Enzyme-linked fluorescent Assay (ELFA)

D:-

Turbidimetric assay

Correct Answer:- Option-C

Question99:-

As per FSSAI for Microbiological standards for Milk and Milk Products - Food Safety Criteria, how many genera of microorganisms are described?

A:-

5

B:-

10

C:-

7

D:-

14

Correct Answer:- Option-A

Question100:-

Which among the following statements are correct?

Statement A : The selective medium for *Bacillus cereus* is MYP agar

Statement B : *Bacillus cereus* is catalase negative.

A:-

A is correct and B is incorrect

B:-

A is incorrect and B is incorrect

C:-

A is incorrect and B is correct

D:-

A is correct and B is correct

Correct Answer:- Option-D