

# PROVISIONAL ANSWER KEY

Question Paper Code:	18/2023/OL
Category Code:	008/2021
Exam:	Dairy Extension Officer
Medium of Question:	English
Date of Test	31-01-2023
Department	Dairy Development
Alphacode	A

Question1:-Sterilization of packaging film used for UHT milk can be done by use of

- A:-Hydrogen cyanide
- B:-Hypochlorite solution
- C:-Potassium permanganate
- D:-Hydrogen peroxide

Correct Answer:- Option-D

Question2:-The purpose of Tri-purpose or Tri-process cream separator is

- A:-Separation of milk
- B:-Clarification of milk
- C:-Standardization of milk
- D:-All the above

Correct Answer:- Option-D

Question3:-When milk is offered for sale without indication of any class, standards applied are that of

- A:-Cow milk
- B:-Buffalo milk
- C:-Std milk
- D:-Mixed milk

Correct Answer:- Option-B

Question4:-Human milk is devoid of the following constituent

- A:- $\alpha$ -lactalbumin
- B:-Proteose peptone
- C:- $\beta$ -lactoglobulin
- D:- $\kappa$ -casein

Correct Answer:- Option-C

Question5:-'Recknagel phenomena' is related to the following:

- A:-Increase in the density of milk upon warm storage
- B:-Increase in the oxidative reaction of milk upon warm storage
- C:-Increase in the density of raw milk upon cold storage
- D:-Increase in the viscosity of milk upon cold storage

Correct Answer:- Option-C

Question6:-As compared to the pasteurized milk, the UHT milk would be

- A:-Brownish
- B:-Whiter
- C:-Darker
- D:-Yellowish

Correct Answer:- Option-B

Question7:-Methylene blue reduction test measures

- A:-Bacterial load of milk
- B:-Sourness of milk
- C:-Alkalinity of milk
- D:-Minerals in milk

Correct Answer:- Option-A

Question8:-The second stage of a two-stage homogenizer is used to:

- A:-Break down the fat globule size to  $< 2\mu\text{m}$  those which could not be broken by the first stage pressure
- B:-Separating out the clusters of fat globules that are created after the first stage of homogenizer
- C:-Break down the fat globule size still smaller size ( $< 1\mu\text{m}$ ) than what was obtained through use of first stage pressure
- D:-Separating out the clusters of fat globules that are created after the second stage of homogenizer

Correct Answer:- Option-B

Question9:-A 'Milk clarifier' does not remove the following from raw milk:

- A:-Leucocyte
- B:-Fiber
- C:-Bacteria
- D:-Dust and dirt

Correct Answer:- Option-B

Question10:-A technique wherein commercially thermally sterilized milk is packaged into previously sterilized containers under sterile conditions to produce shelf-stable products that do not need refrigeration

- A:-Aseptic processing
- B:-Active packaging
- C:-Intelligent packaging
- D:-Edible packaging

Correct Answer:- Option-A

Question11:-Test performed to check quality of milk on raw milk Reception Dock are termed as

- A:-Physical tests
- B:-Chemical tests
- C:-Platform tests
- D:-Physiochemical test

Correct Answer:- Option-C

Question12:-A process of separation of microbes from milk by centrifugal action is

- A:-Clarification
- B:-Filtration
- C:-Bactofugation
- D:-Separation

Correct Answer:- Option-C

Question13:-The milk in which milk fat replace vegetable fat

- A:-Toned milk
- B:-Synthetic milk
- C:-Designer milk
- D:-Filled milk

Correct Answer:- Option-D

Question14:-Cow milk fat appears yellow due to the presence of

- A:-Carotene
- B:-Annatto
- C:-Riboflavin
- D:-Ascorbic acid

Correct Answer:- Option-A

Question15:-The selection of detergents to be employed for cleaning of dairy plants would not be depended on Chlorine compound

- A:-Type of Soil
- B:-Type of the surface
- C:-Concentration of soil
- D:-None of the above

Correct Answer:- Option-D

Question16:-Buffalo milk is found suitable for manufacture of following dairy products:

- A:-Rasogolla and Cheddar cheese
- B:-Evaporated milk and sterilized cream
- C:-Mozzarella cheese and paneer
- D:-All of the above

Correct Answer:- Option-C

Question17:-Browning discolouration in evaporated milk may be due to

- A:-Excessively high heat treatment during sterilization
- B:-Storage at high temperature
- C:-Long storage
- D:-All of the above

Correct Answer:- Option-D

Question18:-The major flavouring compound in yoghurt is

- A:-Diacetyl
- B:-Acetoin
- C:-Acetaldehyde

D:-Acetyl Methyl Carbinol

Correct Answer:- Option-C

Question19:-In a two-stage drying system, the moisture content of power leaving the spray dryer (first stage) is

A:-2-3% higher than the final moisture content desired

B:-Exactly the same moisture as desired in final product

C:-6-7% higher than the final moisture content desire

D:-None of the above

Correct Answer:- Option-A

Question20:-A ghee sample testing positive Boudouin test might have been adulterated using the following

A:-Lard

B:-Palm oil

C:-Argemone oil

D:-Hydrogenated vegetable fat

Correct Answer:- Option-D

Question21:-The overrun in ice cream is indicated by

A:-Ammeter reading in the freezer

B:-Weight/litre of ice cream

C:-Whipping time in freezer

D:-Weight/litre of ice cream mix

Correct Answer:- Option-D

Question22:-Shrikhand is a milk product produced by:

A:-Heat coagulation

B:-Acid coagulation

C:-Heat and acid coagulation

D:-None from these

Correct Answer:- Option-B

Question23:-Danedar Khoa is used for making

A:-Peda

B:-Gulabjamun

C:-Kalakand

D:-None of the above

Correct Answer:- Option-C

Question24:-Which of the following product is made originally with khoa and maida

A:-Sandesh

B:-Gulab jamun

C:-Rasmalai

D:-Rasogolla

Correct Answer:- Option-B

Question25:-The intermediate product for makkhan is

A:-Curd

B:-Cream

C:-Ghee

D:-Khoa

Correct Answer:- Option-A

Question26:-Khurchan is

A:-Heat desiccated product

B:-Heat and acid coagulated product

C:-Fermented product

D:-Cereal based product

Correct Answer:- Option-A

Question27:-The treatment that will not lead to improvement in the spreadability of resultant Table butter

A:-Alnarp process

B:-Reworking of butter

C:-Use of fractionated milk fat having greater proportion of low and medium melting fats

D:-Ripening of cream with starter culture

Correct Answer:- Option-D

Question28:-Co-precipitates are normally prepared by combination of

A:-Acid, Heat and calcium

B:-Akali, Heat and Calcium

C:-Acid, Cold and Calcium

D:-Acid, Heat and Sodium

Correct Answer:- Option-A

Question29:-Which of the following products is consider as both by-products as well as main products

A:-Paneer

B:-Skim milk

C:-Cream

D:-Butter

Correct Answer:- Option-B

Question30:-A delicious south Indian pudding made with vermicelli, sugar, ghee, milk, nuts and raisins vermicelli is known as

A:-Payasam

B:-Channa podo

C:-Karahi

D:-Kunda

Correct Answer:- Option-A

Question31:-Which of the following type of cream separator is called paring disc separator?

A:-Open type

B:-Semi-open type

C:-Hermetic

D:-All of above

Correct Answer:- Option-B

Question32:-In milk pasteurization the segregation of pasteurized milk is ensured by

A:-Holding tube

B:-Re-generation - I

C:-Flow diversion valve

D:-None of above

Correct Answer:- Option-C

Question33:-In which of the following refrigeration system, vapour alternately undergoes change of phase from vapour to liquid and liquid to vapour during completion of cycle

A:-Vapour compression refrigeration

B:-Ice-refrigeration

C:-Air cycle refrigeration

D:-Steam jet refrigeration

Correct Answer:- Option-A

Question34:-If the total area of equipments to be installed in RMRD is 500 sqm, then the approximate area of RMRD section will be

A:-2500 sqm

B:-2000 sqm

C:-1500 sqm

D:-1000 sqm

Correct Answer:- Option-A

Question35:-Circulation of acid must be included in the circuits of \_\_\_\_\_ CIP

A:-Cold surface

B:-Hot surface

C:-Both (1) and (2)

D:-None of the above

Correct Answer:- Option-B

Question36:-The objective of extension education is to raise the standard of living of \_\_\_\_\_ people by helping them in using their natural resources

A:-Urban

B:-Rural

C:-Urban and Rural

D:-All of these

Correct Answer:- Option-B

Question37:-Operation flood programme launched in the year \_\_\_\_\_

A:-1970

B:-1972

C:-1975

D:-1977

Correct Answer:- Option-A

Question38:- \_\_\_\_\_ is the first step in extension teaching

- A:-Attention
- B:-Interest
- C:-Conviction
- D:-Action

Correct Answer:- Option-A

Question39:- \_\_\_\_\_ is a way of showing people the value of improved practices by comparing the improved and old practices

- A:-Method demonstration
- B:-Result demonstration
- C:-Planning
- D:-None of these

Correct Answer:- Option-B

Question40:- \_\_\_\_\_ are instructional devices which are used to communicate message more effectively through sound and visuals

- A:-Audio aids
- B:-Visuals aids
- C:-Audio visuals aids
- D:-All of these

Correct Answer:- Option-C

Question41:- \_\_\_\_\_ is the process by which an innovation is communicated through certain channels over time among the members of a social system

- A:-Innovation
- B:-Diffusion
- C:-Adaption
- D:-All of these

Correct Answer:- Option-B

Question42:- \_\_\_\_\_ adapt a new idea much ahead of others members in the community

- A:-Laggards
- B:-Early adapters
- C:-Innovators
- D:-All of these

Correct Answer:- Option-C

Question43:-Agricultural Technology Management Agency (ATMA) scheme was launched in \_\_\_\_\_

- A:-2005
- B:-2006
- C:-2007
- D:-2008

Correct Answer:- Option-A

Question44:- \_\_\_\_\_ is a specification of work to be done or procedures to be followed in order to accomplish a particular objectives

- A:-Plan
- B:-Solution
- C:-Plan of work
- D:-Project

Correct Answer:- Option-D

Question45:-Milk production of Kerala state for the year 2020-21 was \_\_\_\_\_ Lakh Metric Tonnes

- A:-20.45
- B:-23.89
- C:-25.42
- D:-30.67

Correct Answer:- Option-C

Question46:-Systematic name of lactose is \_\_\_\_\_

- A:- $\beta$ -o-D-galactopyranosyl - (1-4)- $\alpha$ -D-glucofuranose( $\alpha$ -lactose)
- B:- $\beta$ -o-D-galactopyranosyl - (1-4)- $\beta$ -D-glucofuranose( $\beta$ -lactose)
- C:-Both
- D:-None of the above

Correct Answer:- Option-C

Question47:-The last milk during milking contains the higher percentage of fat is also known as

- A:-Strippings
- B:-Fore milk
- C:-Hind milk
- D:-None of these

Correct Answer:- Option-A

Question48:-R.M. value is quite significant Since it is primarily a measure of

- A:-Butyric acid and Caproic acid
- B:-Caprylic acid and Caproic acid
- C:-Both of above
- D:-None of these

Correct Answer:- Option-A

Question49:-Denaturation of whey protein plays important role in development of

- A:-Tallow flavour
- B:-Cooked flavour
- C:-Sour flavour
- D:-Bitter flavour

Correct Answer:- Option-B

Question50:-Which of the following is not associated with Maillard browning

- A:-Schiff's base
- B:-Strecker degradation
- C:-Amadori compound
- D:-Gelation

Correct Answer:- Option-D

Question51:-Immunological and biochemical studies have shown that two of the principle proteins in the MFGM are

- 
- A:-Butyrophilin, Xanthinexidase
  - B:-Lipase, Plasmin
  - C:-Alkaline phosphatase, Peroxidase
  - D:-Acid Phosphatase, Catalase

Correct Answer:- Option-A

Question52:-Heat coagulation of milk is caused chiefly by

- A:-De-stabilization of milk proteins
- B:-Denaturation of milk proteins
- C:-De-stabilization of milk lipids
- D:-Stabilization of milk proteins

Correct Answer:- Option-A

Question53:-AGMARK standards for free fatty acid (% oteic acid) for special grade Agmark Red labels and General grade Agmark green labels are

- A:-NMT 1.4 and NMT 2.5
- B:-NMT 1.8 and NMT 2.8
- C:-NMT 2.0 and NMT 3.0
- D:-None of above

Correct Answer:- Option-A

Question54:-Diacetyl is obtained from its mother component

- A:-Propane
- B:-Citrate
- C:-Acetate
- D:-Lactate

Correct Answer:- Option-B

Question55:-Which of the following process does not occur during ageing of ice-cream \_\_\_\_\_

- A:-De-sorption of proteins
- B:-Complete hydration
- C:-Crystallization of fat
- D:-Building of structure

Correct Answer:- Option-D

Question56:-Solid chlorine available as bleaching powder, a chemical sanitizer in market is chemically

- A:-Sodium hypochlorite
- B:-Chlorine dioxide
- C:-Calcium Hypochlorite

D:-Chloramine T

Correct Answer:- Option-C

Question57:-The sterility of cans is assessed by the method called

A:-Swabbing

B:-Rinsing

C:-Surface agar technique

D:-Moseley test

Correct Answer:- Option-B

Question58:-In order to assess the efficiency of Phenol disinfectants the test is called

A:-Rideal Walker test

B:-Suspension test

C:-Capacity test

D:-Surface method

Correct Answer:- Option-A

Question59:-ISO22000:2015 is

A:-Quality Management System

B:-Food Safety Management System

C:-Good Manufacturing Practices

D:-Good Hygienic system

Correct Answer:- Option-B

Question60:-BIS for milk and milk products is considered as

A:-Mandatory Standard

B:-Not required

C:-Voluntary Standard

D:-Not considered

Correct Answer:- Option-C

Question61:-As per central pollution board of India, Biological oxygen Demand of treated sewage should be

A:-Less than 35 mg/l

B:-Less than 25 mg/l

C:-Less than 20 mg/l

D:-Less than 10 mg/l

Correct Answer:- Option-D

Question62:-The Subsidiary of FAO and WHO is

A:-Codex Alimentarias

B:-UNO

C:-UNICEF

D:-IDF

Correct Answer:- Option-A

Question63:-Expand MSDS in pest control

A:-Matter Safety Determination Sheet

B:-Material Safety Determination Space

C:-Matter Safety Data Sheet

D:-Material Safety Data Sheet

Correct Answer:- Option-D

Question64:-Small 'm' in, microbiological standards in FSSAR for milk and milk products means

A:-Minimum

B:-Maximum

C:-Acceptable level

D:-Specified level

Correct Answer:- Option-C

Question65:-The rapid test method to detect antibiotic and pesticide residues in milk is through

A:-Disc assay method

B:-Charm test

C:-Diffusion assay method

D:-Impedance method

Correct Answer:- Option-B

Question66:-Major causative organism of mastitis in milch animal is

A:-Staphylococcus epidermidis

B:-Streptococcus agalactiae

C:-Streptococcus uberis  
D:-Enterobacter aerogenes  
Correct Answer:- Option-B

Question67:-The acceptable limit of residual chlorine in potable water should be

A:-0.2 mg/l  
B:-2 mg/l  
C:-20 mg/l  
D:-200 mg/l

Correct Answer:- Option-A

Question68:-The most germicidal wave length of UV radiation used in water purification is

A:-270 nm  
B:-268 nm  
C:-260 nm  
D:-254 nm

Correct Answer:- Option-D

Question69:-Bitty cream is caused by the growth of

A:-Bacillus subtilis  
B:-bacillus cereus  
C:-Escherichia coli  
D:-Streptococcus pyogenes

Correct Answer:- Option-B

Question70:-Mastitic milk has predomination of enzyme

A:-catalase  
B:-Proteinase  
C:-Lipase  
D:-Phospholipase

Correct Answer:- Option-A

Question71:-Iron binding protein that acts as a natural antibacterial system in raw milk is

A:-Lactanin  
B:-Lactoperoxidase system  
C:-Bifidus factor  
D:-Lactoferrin

Correct Answer:- Option-D

Question72:-Early gas producer in milk is due to

A:-Coliforms  
B:-Bacillus spp  
C:-Streptococci  
D:-Staphylococci

Correct Answer:- Option-A

Question73:-Extracellular hydrolytic proteinase is produced in refrigerated milk from major psychrotrophic bacterium

A:-Paseudomonas  
B:-Lactococci  
C:-Enterobacter  
D:-Citrobacter

Correct Answer:- Option-A

Question74:-The most heat resistant index organism of pasteurization is

A:-Mycobacterium tuberculosis  
B:-Coxiella burnetii  
C:-Escherichia coli  
D:-Listeria Monocytogenes

Correct Answer:- Option-B

Question75:-Bactofugation is combination of centrifugation and pasteurization to avoid

A:-Bacterial count  
B:-Aerobic spore count  
C:-Anaerobic count  
D:-Coliform count

Correct Answer:- Option-C

Question76:-The Kerala Co-operative societies Act came into existence on

A:-15th May 1996



B:-15th May 1966

C:-15th May 1969

D:-15th May 1960

Correct Answer:- Option-C

Question77:-According to Livestock census: 2019, the two-third of dairy animals are available in \_\_\_\_\_ districts in Kerala state.

A:-Available in 6 districts

B:-Available in 7 districts

C:-Available in 8 districts

D:-Available in 9 districts

Correct Answer:- Option-B

Question78:-The total requirement of milk in Kerala in 2019-20 was 33.22 lakh MT, but

a. The supply was only 25.42 lakh MT

b. The supply was only 30.42 lakh MT

c. A deficiency of 4.65 lakh MT milk

d. A deficiency of 5.65 lakh MT milk

A:-Only a

B:-Only a and c

C:-Only b and c

D:-Only b and d

Correct Answer:- Option-B

Question79:-For the year 2021-22, as per the Kerala State Budget Provisions, it has been proposed to undertake fodder development activities for Rs. \_\_\_\_\_ Lakh in the state

A:-Rs. 460 lakh

B:-Rs. 560 lakh

C:-Rs. 660 lakh

D:-Rs. 760 lakh

Correct Answer:- Option-D

Question80:-The method of mating between individuals which are more closely related, such as brothers and sisters and of sires with daughters is called

A:-Inbreeding

B:-Outbreeding

C:-Both 1 and 2

D:-Crossbreeding

Correct Answer:- Option-A

Question81:-Which of the following statement is/are correct about,

Statement : The limitations of individual selection of dairy animals are

a. Some important traits like milk production, maternal abilities in cows are expressed only in females

b. The performance records for milk and other maternal qualities are available only after sexual maturity of cows

A:-Only a

B:-Only b

C:-Both a and b

D:-None of these

Correct Answer:- Option-C

Question82:-Chemicals like \_\_\_\_\_ is/are commonly used and available in form of sticks, paste

A:-Caustic soda (NaOH)

B:-Caustic potash (KOH)

C:-Both 1 and 2

D:-None of these

Correct Answer:- Option-C

Question83:-Which method that the animals are passed through the weighing yard and weighing is carried out on the platform balances. Allow the animal to stand on the platform before recording the weight

A:-Direct method

B:-Indirect method

C:-Both 1 and 2

D:-None of these

Correct Answer:- Option-A

Question84:-Which of the following statement is/are correct about,

Statement: The management of the dry cow is aimed at

a. To give rest to cow's udder and recoup its condition lost in previous lactation

b. Repair and regeneration of secretory cells of udder

- A:-Only a
- B:-Only b
- C:-Both a and b
- D:-None of these

Correct Answer:- Option-C

Question85:-On the milking system structure of cows, the two rear quarters are larger and produce \_\_\_\_\_ percent of the milk whereas the fore quarters produce about \_\_\_\_\_ percent of the milk

- A:-40 and 60 percent
- B:-50 and 50 percent
- C:-60 and 40 percent
- D:-30 and 70 percent

Correct Answer:- Option-C

Question86:-Which of the following statement is/are correct about

Statement: The best method as it causes minimum injuries to the teats. In this method removes milk quicker than stripping because of no loss of time in changing the position of the hand. Even by efficient method of milking only 85% of milk comes out from udder and 15% still remains in udder which is called residual milk

- a. Stripping method
- b. Full hand method
- c. Knuckling method

- A:-Only a
- B:-Only b
- C:-Only c
- D:-Only a and b

Correct Answer:- Option-D

Question87:-Who is the Queen of forages?

- A:-Stylo
- B:-Lucerne
- C:-Cowpea/Lobia
- D:-Desmanthus

Correct Answer:- Option-B

Question88:-Which of the following statement is/are correct about

Statement: The right recommended stage of harvest of forage crops are

- |                          |                     |
|--------------------------|---------------------|
| A. Forage Crop           | B. Stage of Harvest |
| i. Maize, Bajra, Sorghum | Dough Stage         |
| ii. Cowpea               | 70% flowering       |
| iii. Oat                 | Boot to dough stage |
| iv. Grasses              | early flowering     |

- A:-Only i, ii and iii
- B:-Only ii and iii
- C:-Only i, iii and iv
- D:-Only i, ii, iii and iv

Correct Answer:- Option-C

Question89:-The \_\_\_\_\_ committee constituted to Review the Arrangements for Institutional credit for Agriculture and Rural Development in 1981, recommended the establishment of NABARD.

- A:-Sivaraman
- B:-Sir Maclagan
- C:-Khusro
- D:-Brahm Prakash

Correct Answer:- Option-A

Question90:-NCUI is

- A:-National Cooperative Union of India
- B:-Natural Coir Union of India
- C:-National Coir Union of India
- D:-National Commission for Universities in India

Correct Answer:- Option-A

Question91:-MATSYAFED refers to

- A:-Kerala State Cooperative Federation for Fisheries Development Ltd
- B:-Agency for Development of Aquaculture, Kerala
- C:-Kerala Fishermen's Welfare Fund
- D:-Fish Farmers Development Agency

Correct Answer:- Option-A

Question92:-Kerala Co-operative Milk Marketing Federation (KCMMF), popularly called 'MILMA' was established in \_\_\_\_\_

A:-January, 1950

B:-April, 1970

C:-April, 1980

D:-November, 1980

Correct Answer:- Option-C

Question93:-Which of the following statement is/are correct about,

Statement : The characteristics of fodder crops are \_\_\_\_\_

a. Quick regrowth and short duration

b. Profuse foliage and heavy yield of fodders

c. Should have non-high palatability and non-nutritive value

A:-Only a, b and c

B:-Only a and b

C:-Only a and c

D:-Only c

Correct Answer:- Option-B

Question94:-The superior hybrids varieties are Pusa Giant, NB 21, NB 37, IGFR 5, IGFR 7 and IGFR 10 developed in which institute

A:-Indian Grassland Research Institute, Jhansi

B:-Tamil Nadu Agricultural University, Coimbatore

C:-Both 1 and 2

D:-None of these

Correct Answer:- Option-A

Question95:-Cowpea and maize are \_\_\_\_\_ crop

A:-Annual Crop

B:-Biennials

C:-Perennial Crop

D:-None of these

Correct Answer:- Option-A

Question96:-Who is the fast-spreading fodder tree which produces enormous seeds?

A:-Glyricidia

B:-Subabul

C:-Agathi (Sesbania)

D:-All of these

Correct Answer:- Option-B

Question97:-Who is adapted to tropical climates and tolerant to low fertility, drought, acidic soils and poor drainage? Also, drought-resistant legumes are coming up well in areas receiving a minimum rainfall of 450-840 mm annually

A:-Cowpea/Lobia

B:-Desmanthus-hedge lucerne

C:-Lucerne

D:-Stylo

Correct Answer:- Option-D

Question98:-The preservation of conserving the seasonal excess of green fodder method is

A:-Silage/Ensiling

B:-Hay Making

C:-Both 1 and 2

D:-None of these

Correct Answer:- Option-C

Question99:-Forces air batch type hay drier has a capacity of 1 ton/day and cost works out to Rs. 60 per tonne of dry hay, which is developed in this types of hay drier

A:-Indian Grassland Research Institute, Jhansi

B:-Tamil Nadu Agricultural University, Coimbatore

C:-Central Institute of Agricultural Engineering, Bhopal

D:-Indian Veterinary Research Institute, Bengaluru

Correct Answer:- Option-A

Question100:-Which of the following statement is/are correct about,  
Statement - The hay was depending on the various ways of processing. What are the right ways of hay making/processing into the following categories?

- a. Jungle hay
- b. Sundried hay
- c. Barn dried hay
- d. Dehydrated fodders

A:-Only a and b

B:-Only a, c and d

C:-Only b and c

D:-All a, b and c, d

Correct Answer:- Option-D