

037/2018

Question Booklet  
Alpha Code

A

Question Booklet  
Serial Number

120269

Total No. of questions : 100

Time : 75 Minutes

Maximum : 100 Marks

**INSTRUCTIONS TO CANDIDATES**

1. The question paper will be given in the form of a Question Booklet. There will be four versions of question booklets with question booklet alpha code viz. A, B, C & D.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the question booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a question booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your question booklet is un-numbered, please get it replaced by new question booklet with same alpha code.
6. The question booklet will be sealed at the middle of the right margin. Candidate should not open the question booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the question booklet supplied to him contains all the 100 questions in serial order. The question booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the question booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball-Point Pen in the OMR answer sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

037/2018

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Which one of the following is the National Heritage animal of India?  
(A) Elephant (B) Tiger  
(C) Lion (D) Deer
2. What is the height of the Mount Everest?  
(A) 8846 metres (B) 8848 metres  
(C) 8488 metres (D) 8648 metres
3. Which of the following is the longest river in the World?  
(A) Amazon (B) Mississippi-Missouri  
(C) Hwang Ho (D) Nile
4. What is the total area of Kerala?  
(A) 38,683 sq.kms. (B) 38,386 sq.kms.  
(C) 38,863 sq.kms. (D) 38,883 sq.kms.
5. The Planning Commission of India was set up in :  
(A) 1947 (B) 1950  
(C) 1952 (D) 1956
6. Who is known as 'the Grand Old Man of India'?  
(A) Gopala Krishna Gokhale (B) Surendranath Banerjee  
(C) Dadabhai Naoroji (D) Bala Gangadhar Tilak
7. Who was known as the 'Lion of Punjab'?  
(A) Lala Lajpat Rai (B) Bipin Chandra Pal  
(C) Michael O' Dyer (D) Aurobindo Ghosh
8. Chauri Chaura incident took place on  
(A) 1 January 1922 (B) 7 February 1922  
(C) 1 February 1922 (D) 5 February 1922

A

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[P.T.O.]

9. The Reserve Bank of India came into existence in :
- (A) 1930 (B) 1947  
(C) 1935 (D) 1950
10. Which Five Year Plan is known as NEHRU MAHALANOBIS PLAN?
- (A) First Five Year Plan (B) Second Five Year Plan  
(C) Third Five Year Plan (D) Fourth Five Year Plan
11. Ayyankali founded Sadhu Jana Paripalana Sangham in :
- (A) 1907 (B) 1915  
(C) 1916 (D) 1911
12. Sri Narayana Guru was born at :
- (A) Sivagiri (B) Aluva  
(C) Aruvipuram (D) Chempazhanthi
13. The Islamika Dharma Paripalana Yogam was constituted by :
- (A) Vakkom Abdul Khadar Moulavi  
(B) Moulana Chalilakath Kunjahmad Haji  
(C) Makti Thangal  
(D) Sheikh Muhammad Mahin Hamadani Thangal
14. Which among the following is not the work of Vagbhatananda?
- (A) Atmavidya (B) Adhyatmayuddham  
(C) Anandasopana (D) Prarthananjali
15. The Samatva Samajam was started by :
- (A) Chattampi Swamikal (B) Vaikunda Swamikal  
(C) Sri Narayana Guru (D) Dr. Palpu
16. Who administers the oath of the office of the President of India?
- (A) The Prime Minister of India (B) The Vice President of India  
(C) The Speaker of Lok Sabha (D) The Chief Justice of India
17. The Olympics of 2020 will be held in :
- (A) Boston (B) Tokyo  
(C) Rio de Janeiro (D) Los Angeles

18. Which is the headquarters of the Asian Development Bank?  
(A) Manila (B) Hong Kong  
(C) Seoul (D) Dacca
19. The 18<sup>th</sup> summit of the Non - Alignment will be held in :  
(A) Belgrade (B) Jakarta  
(C) Azerbaijan (D) Havana
20. Which of the following is the highest award in the field of Indian Cinema?  
(A) The Golden Lotus Award (B) Bharat Award  
(C) Urvashi Award (D) Dada Saheb Phalke Award
21. Extension Education is grouped under :  
(A) Formal Education (B) In formal Education  
(C) Non-formal Education (D) None of the above
22. With homogenizing pressure (P), and volume flow rate (Q), the power requirement of a homogenizer (E), is :  
(A)  $E = P/Q$  (B)  $E = PQ$   
(C)  $E = PQ^2$  (D)  $E = P^2/Q$
23. The typical yellowish green color of whey is attributed :  
(A) Casein (B) Carotene  
(C) Riboflavin (D) Folic Acid
24. Which among the following is responsible for toxi. - infection?  
(A) *Salmonella typhi* (B) *Staphylococcus aureus*  
(C) *Clostridium botulinum* (D) *Clostridium perfringens*
25. The systematic name of  $\beta$ -lactose is :  
(A) 4-o- $\beta$  D galactopyranosyl  $\alpha$  D glucopyranose  
(B) 4-o- $\alpha$  D galactopyranosyl  $\beta$  D glucopyranose  
(C) 4-o- $\beta$  D glucopyranosyl  $\alpha$  D galactopyranose  
(D) 4-o- $\alpha$  D glucopyranosyl  $\beta$  D galactopyranose

26. Biological polymers that catalyze chemical reactions are :
- (A) Fat (B) Proteins  
(C) Carbohydrates (D) Enzymes
27. The amount of heat required to raise the temperature of 1 g of milk by 1°C, as compared to water is :
- (A) 93% (B) 103%  
(C) 200% (D) 50%
28. Which of the following is true for mastitic milk?
- (A) Low lactose and high chloride content  
(B) High lactose and low chloride content  
(C) Low lactose and low chloride content  
(D) High lactose and high chloride content
29. The test not related to antibiotic residue :
- (A) Copan test (B) Delvo test  
(C) Catalase test (D) Charm test
30. The difference between 'what is' and 'what ought to be' is :
- (A) Aim (B) Goal  
(C) Objective (D) Need
31. In milk powder, the ratio of  $\beta/\alpha$  forms of lactose at 20°C in equilibrium is :
- (A) 1.64 (B) 1.46  
(C) 1.25 (D) 1.52
32. The isomer of lactose formed by molecular rearrangement wherein the terminal aldose residue of lactose is converted into a ketose :
- (A) Lactate (B) Lactitol  
(C) Lactobionic acid (D) Lactulose
33. In 3 class sampling plan :
- (A) n, c, m and M are specified  
(B) n, c and M are specified but not m  
(C) C, m and M are specified but not n  
(D) n, m and M are specified but not c

34. One unit of electricity is equal to :
- (A) 4.2 kJ (B) 1 kWh  
(C) 746 W (D) 1 hp
35. Hybrid Napier is a cross between Napier grass and :
- (A) Maize (B) Wheat  
(C) Jowar (D) Bajra
36. Ideally pasteurised milk will be :
- (A) Phosphatase positive and peroxidase negative  
(B) Phosphatase negative and peroxidase positive  
(C) Both phosphatase and peroxidase positive  
(D) Both phosphatase and peroxidase negative
37. Which of the following time temperature combination lead to complete denaturation of whey protein?
- (A) 72°C/15 min. (B) 12°C/15 min.  
(C) 90°C /10 min. (D) 63°C /30 min.
38. The rotating speed of disk stacks of a cream separator with the bowl is \_\_\_\_\_ rpm.
- (A) 1000-2000 (B) 2000-4000  
(C) 4000-6000 (D) 10000-20000
39. The criteria that is not suited for indicator organisms :
- (A) The growth should not be inhibited by background flora  
(B) Growth and number should correlate negatively with product quality  
(C) Method for detection/quantification should be easy  
(D) Survivability should be lesser than that of pathogen
40. For which product is sulphite reducing Clostridia not a food safety criterion as per FSSAI?
- (A) Ice cream  
(B) Cereal based complimentary food  
(C) Butter milk  
(D) None of the above

41. An effect whereby heat is given out or absorbed when an electric current passes across a junction between two materials is called :
- (A) Thomson effect (B) Seebeck effect  
(C) Joule effect (D) Peltier effect
42. The principal compound that is responsible for the stretching quality of Mozzarella cheese is :
- (A) Dicalcium p-caseinate (B) Monocalcium p-caseinate  
(C) Calcium phosphate (D) P-casein
43. Name the amino acid made unavailable due to Maillard browning :
- (A) Leucine (B) Glycine  
(C) Lysine (D) Tyrosine
44. Which among the following is included in the food safety criteria specified in FSSAI for pasteurised milk?
- (A) *Salmonella* (B) *Coliform*  
(C) *Bacillus cereus* (D) *Yeast and mold*
45. In the study of pumps, NPSH stands for :
- (A) Normal Pump Suction Head (B) Net Positive Suction Head  
(C) Normal Power Suction Head (D) Normal Pressure Suction Head
46. Danedar khoa is suited for the preparation of :
- (A) Pedda (B) Burfi  
(C) Gulabjamun (D) Kalakand
47. Which among the following is not a native breed of Kerala?
- (A) Kasargode Dwarf (B) Vechur  
(C) High range cow (D) Kangayam
48. The major flavour compound in yogurt :
- (A) Citrate (B) Diacetyl  
(C) Acetaldehyde (D) Acetoin
49. Common name for  $\beta$ -galactosidase enzyme is :
- (A) Galactase (B) Lactase  
(C)  $\beta$  hydrolase (D) Amylase

50. Maximum salt content permitted in butter :  
(A) 1.0% (B) 1.5%  
(C) 3% (D) 4 ppm
51. Which genera of Lactic acid bacteria is used for flavour production?  
(A) Bacillus (B) Lactobacillus  
(C) Streptococcus (D) Leuconostoc
52. \_\_\_\_\_ test is not used for detection of mastitic milk.  
(A) California mastitis test (B) Catalase test  
(C) Peroxidase test (D) Somatic cell count
53. \_\_\_\_\_ uses centrifugal force for removing bacteria from milk.  
(A) Homogenization (B) Clarification  
(C) Bactofugation (D) None
54. The height of 'dado' of a dairy plant is :  
(A) 1 m (B) 1.5 m  
(C) 2.5 m (D) None of the above
55. The common name for C18:1 fatty acid is :  
(A) Palmitic acid (B) Palmitoleic acid  
(C) Oleic acid (D) Linoleic acid
56. Which of the following is not true?  
(A) A normal Vieth ratio with low SNF is an indication of extraneous water in milk  
(B) Vieth ratio is altered in mastitic milk  
(C) Both (A) and (B) are true  
(D) (B) is true but not (A)
57. Pre stratification is a method used in the production of :  
(A) Cream (B) Cheese  
(C) Ghee (D) Butter
58. Dried fermented milk product of middle east :  
(A) Kishk (B) Quarg  
(C) Yogurt (D) Skyr



59. On exposure to UV radiation 7-dehydrocholesterol is converted to :
- |               |               |
|---------------|---------------|
| (A) Vitamin D | (B) Vitamin E |
| (C) Vitamin A | (D) Vitamin K |
60. Over run of soft ice cream :
- |            |            |
|------------|------------|
| (A) 10-20% | (B) 30-50% |
| (C) 50-70% | (D) >100%  |
61. Codex Alimentarius Commission is a joint venture of FAO and :
- |            |          |
|------------|----------|
| (A) UNICEF | (B) UNDP |
| (C) WHO    | (D) WTO  |
62. As per FSSAI wt/vol for ice cream :
- |                                     |                                 |
|-------------------------------------|---------------------------------|
| (A) Should not be less than 525 g/l | (B) Should be more than 525 g/l |
| (C) Should be less than 475 g/l     | (D) Should be more 475 g/l      |
63. According to Indian Standards, for milk storage tanks, only \_\_\_\_\_ welding shall be done for all joints in stainless steel sheet.
- |         |          |
|---------|----------|
| (A) TIG | (B) SMAW |
| (C) MIG | (D) FCAW |
64. The heat treatment that is used to extend the storage life of milk prior to pasteurisation :
- |                  |                    |
|------------------|--------------------|
| (A) Uperization  | (B) Vacreation     |
| (C) Thermization | (D) Satssanization |
65. Fats provide about \_\_\_\_\_ Kcal of energy per gram.
- |         |         |
|---------|---------|
| (A) 8.3 | (B) 9.3 |
| (C) 4.0 | (D) 4.2 |
66. Number of organisms present in a probiotic food product :
- |                          |                             |
|--------------------------|-----------------------------|
| (A) $10^2 - 10^6$ CFU/gm | (B) $10^4 - 10^8$ CFU/gm    |
| (C) $10^6 - 10^8$ CFU/gm | (D) $10^8 - 10^{12}$ CFU/gm |
67. Gelation in UHT milk result from :
- |                      |                         |
|----------------------|-------------------------|
| (A) Proteolysis      | (B) Lipolysis           |
| (C) Both (A) and (B) | (D) Neither (A) nor (B) |

68. The solubility index of spray dried powder should be below :
- (A) 1.0 (B) 1.5  
(C) 2 (D) 2.5
69. \_\_\_\_\_ requires a threshold level of stress to start and then follow a linear stress-strain relationship.
- (A) Pseudoplastic (B) Bingham Plastic  
(C) Dilatant (D) Newtonian fluid
70. Horrel Elliker test is used :
- (A) to find the acidity of milk  
(B) to find the rate of acid production  
(C) to detect the presence of inhibitory substances  
(D) to detect the presence of flavour compound
71. Milk is Pumped into silos by :
- (A) Centrifugal pump (B) Vacuum pump  
(C) Reciprocating pump (D) Rotary Pump
72. FSSA (Food Safety and Standards Act) was enacted in the year :
- (A) 2003 (B) 2004  
(C) 2005 (D) 2006
73. In Electro dialysis molecules pass through the membrane according to their :
- (A) Charge only (B) Molecular size only  
(C) Both charge and molecular size (D) Diffusion
74. The most important fat globule membrane protein is :
- (A) Xanthine oxidase (B) Butyrophilin  
(C) Alkaline phosphatase (D) Lipase
75. SS-304, used in dairy industry, is a \_\_\_\_\_ type stainless steel.
- (A) Austenitic (B) Martensitic  
(C) Ferritic (D) Duplex

76. Lactose crystallisation leads to :
- (A) Caking in milk powder (B) Sandiness in ice cream  
(C) Both (A) and (B) (D) None of them
77. Slope of thermal death line curve gives :
- (A) F value (B) D value  
(C) C value (D) Z value
78. Galactosemia is caused by the deficiency of \_\_\_\_\_ enzyme.
- (A) Lactase (B) Galactokinase  
(C) Galactosyl transferase (D) Galactosidase
79. The range of carbon per cent in mild steel is :
- (A) 0.1 to 0.25 (B) 1 to 1.5  
(C) 1.5 to 2.0 (D) 2 to 4.5
80. Test used to differentiate cow milk from buffalo milk :
- (A) Hansa test (B) Seliwanoff's test  
(C) Gerber test (D) Hehner's test
81. The fatty acid that contributes to hydrolytic rancidity is :
- (A) Oleic acid (B) Palmitic acid  
(C) Butyric acid (D) Stearic acid
82. \_\_\_\_\_ is a colligative property of milk.
- (A) Viscosity (B) Freezing point  
(C) Density (D) Specific gravity
83. \_\_\_\_\_ pump operates in a way similar to our throat and intestines.
- (A) Centrifugal (B) Reciprocating  
(C) Rotary Lobe (D) Peristaltic
84. AGMARK grading is done by :
- (A) Bureau of Indian Standards  
(B) Directorate of Marketing and Inspection  
(C) Food Safety and Standards Authority of India  
(D) None of the above

85. As per FSSAI, butter should have a minimum of \_\_\_\_\_ % fat.
- (A) 80 (B) 70  
(C) 60 (D) 50
86. The major whey protein in bovine milk :
- (A)  $\alpha$ -lactalbumin (B) Immunoglobulin  
(C) Casein (D)  $\beta$  lactoglobulin
87. If the moisture content of a food product on wet basis is 50%, the moisture content of the product on dry matter basis is :
- (A) 25% (B) 50%  
(C) 100% (D) 200%
88. Which of the following is not true for lactulose?
- (A) Lactulose is a disaccharide formed between galactose and fructose  
(B) Lactulose is a disaccharide formed between glucose and fructose  
(C) Lactulose is found in strongly heated milk  
(D) Lactulose has prebiotic properties
89. Water in oil emulsion exist in :
- (A) Milk (B) Cream  
(C) Ice cream (D) Butter
90. Which ISO standard governs the Food Safety Management System?
- (A) ISO 22000 (B) ISO 9001  
(C) ISO 28000 (D) ISO 14001
91. In a spray dryer \_\_\_\_\_ is done for increasing the heat transfer surface area.
- (A) Pre heating (B) Lecithinization  
(C) Atomization (D) Homogenization
92. Element that is not present in AISI 304 but present in AISI 316 Stainless steel is :
- (A) Chromium (B) Molybdenum  
(C) Nickel (D) Carbon

93. Milk devoid of fat is known as :
- (A) Imitation milk (B) Milk plasma  
(C) Skim milk (D) Toned milk
94. Microorganisms which can grow at refrigeration temperature :
- (A) Thermodurics (B) Thermophils  
(C) Psychrotrophs (D) Mesophils
95. The unit of Reynold's number is :
- (A) Nm/s (B) kJ/kg/K  
(C) W/m<sup>2</sup> (D) None of the above
96. Identify the natural antioxidant :
- (A) Vit A (B) Carotene  
(C) Vitamin E (D) All of the above
97. Hemolytic Uremic Syndrome (HUS) is associated with :
- (A) E.coli 0157.H7 (B) *Yersinia enterocolitica*  
(C) *Clostridium botulinum* (D) *Listeria monocytogenes*
98. Milk stone has following constituents except :
- (A) milk protein (B) calcium phosphate  
(C) sodium carbonate (D) insoluble calcium salts
99. Bifidobacteria ferment lactose producing :
- (A) Lactic acid and formic acid in the ratio 2:1  
(B) Formic acid and lactic acid in the ratio 2:1  
(C) Lactic acid and acetic acid in the ratio 3:2  
(D) Acetic acid and lactic acid in the ratio of 3:2
100. The unit of bulk density :
- (A) g/cm<sup>3</sup> (B) g/l  
(C) both (A) and (B) (D) neither (A) nor (B)