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Question Booklet Alpha Code

A

Question Booklet Sl. No.

Total Number of Questions : 100

Time : 75 Minutes

Maximum Marks : 100

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/her 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.

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1. Freeze drying takes place at
 - A) The triple point
 - B) Below the triple point
 - C) Above the triple point
 - D) At zero degree Celsius
2. Use of several methods like temperature (high or low), control of acidity, control of water activity for preservation of food is known as
 - A) Hurdle technology
 - B) Mixed technology
 - C) Stumbling technology
 - D) Multiple technology
3. Cause and effect diagram is also known as
 - A) Quality circles
 - B) Fish bone diagram
 - C) Five force diagram
 - D) Kaizen diagram
4. The process in which a specially designed hermetic centrifuge is used to separate bacteria and especially the spores formed by specific bacteria strains, from milk is known as
 - A) Sterilization
 - B) Pasteurisation
 - C) Aseptic packaging
 - D) Bactofugation
5. The most common bacterial cultures involved in acidic fermentation are
 - A) *Lactobacillus*, *Leuconostoc*, *Lactococcus* and *Streptococcus*
 - B) *Lactococcus*, *Bifidobacterium*, *Lactobacillus* and *Leuconostoc*
 - C) *Lactococcus*, *Rhizopus*, *Lactococcus* and *Streptococcus*
 - D) *Lactobacillus*, *Leuconostoc*, *Lactococcus* and *Aspergillus*
6. Which of the following statements are true ?
 1. Foods high in sugar and other solutes dry more slowly.
 2. As drying progresses the concentration of solutes in water increases causing the drying rate to slow.
 3. Water that is most difficult to remove is that is chemically bound in the form of hydrates.
 4. Drying at high pressure occurs at lower temperature.
 - A) 1, 2, 3, 4
 - B) 1, 2, 3
 - C) 1, 3, 4
 - D) 1, 2, 4
7. Foods processed using high-pressure technology, gamma irradiation, high electric field pulse and thermosonication are known as
 - A) Minimally processed foods
 - B) UHT processed foods
 - C) Aseptically processed foods
 - D) All of the above
8. Food items should be subjected to micro frequencies such that, the dielectric constant is _____ and loss factor is _____
 - A) Maximum, minimum
 - B) Maximum, maximum
 - C) Minimum, minimum
 - D) Minimum, maximum

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9. In which of the following ways does absorption of gamma radiation takes place ?
- A) Photoelectric effect
 - B) Compton effect
 - C) Pair production
 - D) All of the mentioned
10. Which among the following claims is prohibited ?
- A) Unsubstantiated claims
 - B) Claims of Veg./Non-veg.
 - C) Claims of quality
 - D) None of the mentioned
11. What is “carryover” principle ?
- A) Additives added in the raw materials are not present in the final products
 - B) Antioxidant added to oil is present in all oil based products made from it
 - C) All of the above
 - D) None of the above
12. Difference of Green Tea from Black Tea is that
- A) The oxidation process is omitted
 - B) The tea leaves are steamed in a pan before rolling to prevent oxidation by enzymes
 - C) The oxidation process is omitted and the tea leaves are steamed in a pan before being rolled to prevent oxidation by enzymes
 - D) None of the mentioned
13. When a deviation from critical limits happens what should be done ?
- A) Documentation of corrective actions
 - B) Stop the line and inform the supervisor
 - C) Reassess the HACCP plan
 - D) All of the above
14. Which type of packaging is appropriate for fruits ?
- A) Ethylene absorbers
 - B) Oxygen absorbers
 - C) Carbon-di-oxide absorbers
 - D) Nitrogen producing
15. Which of the following is true about death time curve method to sterilize canned food ?
- A) It tells us the time and temperature to sterilize canned food
 - B) It tells us about the heat penetration of the container
 - C) It tells us about the heat conductivity of the container
 - D) All of the mentioned

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16. Which method is most energy efficient for making ghee ?
- A) Desi method
 - B) Creamery butter method
 - C) Direct cream method
 - D) Pre-stratification method
17. What will be the over run, if 400 litre of mix produces 740 litre of ice cream ?
- A) 60%
 - B) 85%
 - C) 30%
 - D) 100%
18. What is the major defect that occurs in UHT milk during storage ?
- A) Darkening of colour
 - B) Age gelation
 - C) Cooked flavour
 - D) Absence of beneficial bacteria
19. During cheddar cheese manufacture, rennet split the kappa-casein at the junction of
- A) Phenyl alanine-histidine
 - B) Methionine-lysine
 - C) Histidine-lysine
 - D) Phenyl alanine-methionine
20. UHT processed milk is aseptically packaged at
- A) 5 °C
 - B) 10 °C
 - C) 20 °C
 - D) 40 °C

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21. The usual method of stunning cattle is by using
- A) Captive bolt pistol
 - B) Electrical stunning
 - C) CO₂ anaesthesia
 - D) None of the above
22. Which Vitamin is not available in egg ?
- A) Vitamin A
 - B) Vitamin B
 - C) Vitamin C
 - D) Vitamin D
23. A meat borne bacterial infection
- A) Taeniasis
 - B) Toxoplasmosis
 - C) Sarcocystis
 - D) Salmonellosis
24. A cured meat product
- A) Sausage
 - B) Bacon
 - C) Keema
 - D) Cutlet
25. The method of preservation of egg using sodium silicate
- A) Thermal processing
 - B) Water glass method
 - C) Lime sealing
 - D) Oil coating

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26. The certified copies may be produced in proof of the contents of which document ?
A) All kinds of documents
B) Private documents
C) Public documents
D) Government documents
27. 'Consumer' under the Food Safety and Standards Act, 2006 is the
A) Person who consumes food
B) Person and family who consume food
C) Person who purchases and receives the food
D) Person and families who purchases and receives food
28. The head office of the Food Safety and Standards Authority of India is at
A) Mumbai
B) Delhi
C) Calcutta
D) Kochi
29. The enactment of Information Technology Act, 2000 resulted in the introduction of which provision under Indian Evidence Act, 1872 ?
A) S. 65A
B) S. 64A
C) S. 63A
D) S. 62A
30. Who is responsible for the inspection of food business, drawing and sending samples for food analysis under Food Safety and Standards Act, 2006 ?
A) Commissioner of Food Safety
B) Food Analyst
C) Food Safety Officer
D) Live Stock Inspector
31. Which of the following is correct ?
A) The accused can file written statements under S. 233 Cr.P.C. in support of his defence.
B) S. 250 Cr.P.C. empowers the magistrate to discharge an accused in a warrant case instituted otherwise than on a police report.
C) In a summary trial under S. 235 Cr.P.C. the maximum period of imprisonment that can be imposed is two years.
D) The bail bond executed for the appearance before the higher court under S. 437 Cr.P.C. shall be five years.
32. The magistrate can take cognizance of offence upon
A) Receiving information through telephone or e-mail
B) A police report
C) Information received from a police officer
D) All the above

41. In which of the following separation techniques the separation is based on the net charge of the molecule ?
A) Affinity chromatography B) Ion exchange chromatography
C) Molecular exclusion chromatography D) Isopycnic centrifugation
42. An example for triose is
A) Glucose B) Ribulose
C) Xylulose D) Glyceraldehyde
43. The exoskeleton of insects (chitin) is composed of
A) N-Acetyl glucosamine B) N-Acetyl muramic acid
C) N-Acetyl galactosamine D) Glucose-6-phosphate
44. Of the following, which amino acid is an imino acid ?
A) Histidine B) Glutamic acid C) Proline D) Tyrosine
45. The proteolytic enzyme trypsin, hydrolyses the peptide bonds in which
A) Amino group is contributed either by lysine or arginine
B) Carbonyl function is contributed either by lysine or arginine
C) Carbonyl function is contributed either by phenylalanine or tyrosine
D) Amino group is contributed either by phenylalanine or tyrosine
46. Which of the following is not an antioxidant ?
A) Vit. C B) Vit. E C) Carotenes D) Vit. B₆
47. Iodine number of fatty acids denotes its
A) Degree of unsaturation B) Chain length
C) Molecular weight D) Solubility in water
48. Cold Sterilization means preservation of food by
A) Sterilizing at - 179 °C B) Radiation
C) Sterilizing at 0 °C D) Lyophilization
49. In humans the basal metabolic rate accounts for about _____ percentage of the daily calorie expenditure.
A) 60 – 75 B) 40 – 55 C) 25 – 40 D) 80 – 90
50. The Respiratory Quotient (RQ) is the ratio of
A) O₂ consumed/CO₂ eliminated B) H₂O consumed/CO₂ eliminated
C) CO₂ eliminated/O₂ consumed D) CO₂ eliminated/H₂O consumed

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51. Biological Value of a protein is influenced by
- A) Amino acid composition
 - B) Vitamin and mineral content
 - C) Preparation (cooking)
 - D) All the above
52. The absorption maxima λ_{\max} of a compound is dependent on
- A) Structure of the compound
 - B) pH of the solvent in which the compound exist
 - C) The polarity of the solvent
 - D) All the above
53. The purpose of guard column in HPLC systems is to
- A) Protect the peristaltic pump
 - B) Protect the main column
 - C) Protect the injection port
 - D) Protect the detector
54. All free radicals have _____ in their orbitals.
- A) Paired valence electron
 - B) Unpaired valence electrons
 - C) No valence electron
 - D) None of the above
55. Of the following which is not an artificial sweetener ?
- A) Saccharin
 - B) Sodium cyclamate
 - C) Butylated hydroxyanisole
 - D) Acesulfame

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56. Which is mordant in Grams staining ?
A) Crystal Violet B) Safranin C) Alcohol D) Iodine
57. The immersion oil used in microscopy will
A) Decrease the numerical aperture B) Increase the refractive index
C) Decrease the refractive index D) None of the above
58. Aflatoxins are
A) Produced by certain fungi B) Cancer causing agent
C) Causes immunosuppression D) All the above
59. Botulinum toxins are
A) Neurotoxic B) Teratogen C) Carcinogenic D) Mutagen
60. MSA (Mannitol Salt Agar) is generally used for the detection of
A) *E. Coli* B) *Staphylococcus aureus*
C) *Bacillus sp.* D) *Aspergillus niger*
61. Enzyme used in fruit juice clarification is
A) Protease B) Trypsin C) Cellulase D) Pectinase
62. Rotating Biological contactors are employed
A) Primary treatment of waste water
B) Secondary treatment of waste water
C) RBC isolation
D) Solid waste management
63. This is not a method of enzyme immobilization
A) Encapsulation B) Adsorption
C) Nanomaterial immobilization D) PAGE
64. HACCP stands
A) Health Analysis and Critical Control Point
B) Hazard Analysis and Critical Care Point
C) Hazard Analysis and Crucial Control Point
D) Hazard Analysis and Critical Control Point
65. Which GM crop is approved in India ?
A) Bt Corn B) Bt Brinjal
C) Bt Cotton D) GM Tomato

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66. The trap which is used widely to kill rice field rats is
- A) Snap trap
 - B) Remote triggered trap
 - C) Pot trap
 - D) Automatic trap
67. A dull hollow sound when tapped is the maturity index of _____ crop.
- A) Papaya
 - B) Pineapple
 - C) Sapota
 - D) Watermelon
68. Bheema is a high yielding variety of _____ mushroom.
- A) Paddy straw mushroom
 - B) Button mushroom
 - C) Oyster mushroom
 - D) White milky mushroom
69. A chemical safely sprayed on bags of stored grains in godowns
- A) Carbosulfan
 - B) Malathion
 - C) Dimethoate
 - D) Quinalphos
70. Which of the following is not an advantage of blanching ?
- A) For precooling
 - B) To preserve colour
 - C) To preserve flavor
 - D) To inactivate enzymes

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81. Which among the following pairs of months will have the same calendar ?
A) April – November
B) January – October
C) July – October
D) June – August
82. The difference between 75% of a number and 20% of the same number is 378.4. What is 40% of that number ?
A) 275.2
B) 274
C) 267.2
D) 266
83. Neha walked 9 m in the East, then she turned to her right and walked 4 m. Again she turned to her left and moved 3 m. Then she turned to her left and walked 9 m. How far is she and in which direction from the starting point ?
A) 13 m, South – West
B) 13 m, North – East
C) 15 m, North – East
D) 15 m, South – West
84. If eye = ice, lips = rose and brows = black, what is coded as 'forehead' ?
A) Sindoor
B) Flower
C) Jasmine
D) Frontier
85. A committee of 3 members is to be selected out of 3 men and 2 women. What is the probability that the committee has atleast one woman ?
A) $\frac{1}{10}$
B) $\frac{9}{20}$
C) $\frac{9}{10}$
D) $\frac{1}{20}$
86. Vaunt : Flaunt :: Disparate : ?
A) Similar
B) Homogeneous
C) Contrast
D) Alike
87. What will be the next term in the following – DCXW, FEVU, HGTS, ?
A) AKPO
B) ABYZ
C) JIRQ
D) LMRS
88. In how many different ways can the letters of the word 'PUNCTUAL' be arranged ?
A) 64
B) 40320
C) 960
D) 20160
89. Find out the wrong term in the series.
2, 3, 4, 4, 6, 8, 9, 12, 16
A) 9
B) 12
C) 16
D) 8
90. In a certain code if C = 3 and SCHOOL = 12, then LAMB = ?
A) 28
B) 12
C) 7
D) 8

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91. My brother _____ the answer to the question.
 A) is know B) know C) knowing D) knows
92. I think I will buy these shirts. _____ me really well.
 A) They were fitting B) They fit
 C) They are fitting D) They have fit
93. Where _____ the book ?
 A) did you keep B) did you kept
 C) kept you D) none of these
94. At five o'clock yesterday evening I _____ for the bus.
 A) were waiting B) was waiting C) wait D) waiting
95. Anne _____ ill for two weeks. She is still in hospital.
 A) was B) had been C) is D) has been
96. How did you come ? _____ bus ?
 A) in B) on C) through D) by
97. Choose the correct sentence from the following.
 A) I am not agree with what you say
 B) He is doing a course in linguistics
 C) Children makes a lot of noise
 D) He speak English well
98. Which of the following is the opposite of diligent ?
 A) active B) smart
 C) hard working D) lazy
99. What is the one word substitute for one who is not sure about God's existence ?
 A) Agnostic B) Atheist
 C) Theist D) None of these
100. What does the idiom kick the bucket mean ?
 A) to die
 B) to hit someone with a bucket
 C) to cry
 D) none of these

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Space for Rough Work

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