

Total No. of Printed Pages : 13

(DO NOT OPEN THIS QUESTION BOOKLET BEFORE TIME OR UNTIL YOU
ARE ASKED TO DO SO)

SET-Z

A

M.Phil./Ph.D./URS-EE-2019

SUBJECT : Food Technology

Sr. No. 10037

Time : 1¼ Hours

Max. Marks : 100

Total Questions : 100

Roll No. (in figures) _____ (in words) _____

Name _____ Father's Name _____

Mother's Name _____ Date of Examination _____

(Signature of the Candidate)

(Signature of the Invigilator)

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3. Keeping in view the transparency of the examination system, carbonless OMR Sheet is provided to the candidate so that a copy of OMR Sheet may be kept by the candidate.
4. Question Booklet along with answer key of all the A, B, C & D code will be got uploaded on the University website after the conduct of Entrance Examination. In case there is any discrepancy in the Question Booklet/Answer Key, the same may be brought to the notice of the Controller of Examination in writing/through E.Mail within 24 hours of uploading the same on the University Website. Thereafter, no complaint in any case, will be considered.
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MPH/PHD/URS-EE-2019/(Food Technology)(SET-Z)/(A)

SEAL

1. Carbohydrates contain the elements :
 - (1) Carbon and hydrogen
 - (2) Carbon and oxygen
 - (3) Carbon, hydrogen, oxygen & nitrogen
 - (4) Carbon, hydrogen and oxygen
2. provides the energy needed to transform the carbon dioxide and water into carbohydrates.
 - (1) Sunlight
 - (2) Photosynthesis
 - (3) Oxygen
 - (4) Chemical reaction
3. Basal Metabolic Rate (BMR) is the required for activity of internal organs when man is on complete rest.
 - (1) Food
 - (2) Energy
 - (3) Oxygen
 - (4) Water
4. Each gram carbohydrate supplies of energy to the body :
 - (1) 4 kcal
 - (2) 6 kcal
 - (3) 8 kcal
 - (4) 10 kcal
5. Excess intake of carbohydrates is converted to :
 - (1) Glucose
 - (2) Fructose
 - (3) Fat
 - (4) Blood Sugar
6. Pudding cake, pastries etc. are made from :
 - (1) Self raising flour
 - (2) Bread flour
 - (3) Biscuit flour
 - (4) Cake flour
7. Flaked rice is made from :
 - (1) Raw rice
 - (2) Brown rice
 - (3) Parboiled rice
 - (4) Bulgur
8. During bread making, the elasticity of gluten is controlled by :
 - (1) Glutenin
 - (2) Gliadin
 - (3) Water
 - (4) Yeast

9. In rice polishing :
- (1) A coating is applied on the outer surface of brown rice
 - (2) A layer of bran is removed from brown rice
 - (3) A layer of starch is removed
 - (4) Only husk is removed
10. In dry milling process prior to treatment with oil, the following operation is done :
- (1) Grading
 - (2) Polishing
 - (3) Conditioning
 - (4) Pitting
11. After the oil treatment, the pulses are kept for about 12 hours to allow proper penetration to take place in the pulse kernel is called :
- (1) Conditioning
 - (2) Oil penetration
 - (3) Tempering
 - (4) Saponification
12. Break rolls have :
- (1) Smooth Surface
 - (2) Corrugated surface
 - (3) Rough Surface
 - (4) Hole in surface
13. Jelly is food product.
- (1) Solid
 - (2) Liquid
 - (3) Syrup
 - (4) Semi- Solid
14. Blanching refers to :
- (1) Inactivate the enzyme
 - (2) Cooking the food
 - (3) Drying of food
 - (4) Sterilization of food
15. In souce/Ketch up, tamarind pulp and pomegranate seed powder is used to increase :
- (1) Acidity
 - (2) Palatability
 - (3) Digestion
 - (4) Sweetness
16. Aroma of over ripe fruit of banana is due to :
- (1) Allicin
 - (2) Isopentanol
 - (3) Isothiocyanate
 - (4) Capsaicin

A

17. Richest source of Vitamin C among the fruits :
- (1) Amla (2) Lemon
(3) Barbados Cherry (4) Guava
18. Zero energy chamber operates on the principle of :
- (1) Boyle's law (2) Charle's law
(3) Evaporative cooling (4) Second law of thermodynamics
19. Sodium benzoate is used for preservation of fruit juices in the range of :
- (1) 0.06 % to 0.10% (2) 0.10% to 0.20%
(3) 1.0% to 1.5% (4) 1.5% to 2.0%
20. Which of the following is best suitable for jelly making ?
- (1) Strawberry (2) Apple
(3) Pineapple (4) Apricot
21. Guava is a rich source of :
- (1) Vitamin A (2) Vitamin C
(3) Carbohydrates (4) Beta-carotene
22. Potato is the rich source of :
- (1) Starch (2) Vitamin (3) Fat (4) Minerals
23. Cow milk's protein is :
- (1) Casein (2) Albumin
(3) Zein (4) Lactoalbumin
24. Paneer is a :
- (1) Concentrated milk product (2) Dried milk product
(3) Coagulated milk product (4) Fermented product
25. Buffalo milk is rich source of following minerals :
- (1) Calcium and iron (2) Copper and iron
(3) Copper and phosphorus (4) Calcium and phosphorus

26. Butter is an emulsion of :
- (1) Water in oil (2) Oil in water
(3) Water in water (4) Oil in oil
27. Standard fat percentage in toned and double toned milks are :
- (1) 3.5 and 1.5 (2) 1.5 and 3.5
(3) 3.0 and 1.5 (4) 1.5 and 3.0
28. Yellow colour of cow milk is due to the presence of :
- (1) Casein (2) Carotene
(3) Fat (4) Lacto-Chrome
29. Acidity of milk is expressed as :
- (1) Citric acid (2) Oleic acid
(3) Butyric acid (4) Lactic acid
30. Milk is deficient in which of the following :
- (1) Iron (2) Calcium
(3) Copper (4) Potassium
31. Milk viscosity is due to which constituent of milk :
- (1) Casein (2) Albumin
(3) Globulin (4) Phospholipids
32. When HTST pasteurization is performed, the milk is heated at :
- (1) 72°C (2) 65°C
(3) 81°C (4) 130°C
33. Quality of egg can be judged by :
- (1) pH (2) Candling
(3) Annealing (4) Temperature test
34. Buffalo meat contains white fat as :
- (1) WBC (2) RBC
(3) Yellow pigment (4) Carotene covered to Vitamin A

35. Amount of protein in an egg is :
(1) 600 Iu (2) 600 mg (3) 6.6 gm (4) 9.3 gm
36. Removal of feather from scaled bird is known as :
(1) Picking (2) Pinning (3) Scalding (4) Singing
37. According to ISI, the size of extra large egg is :
(1) 50 gm (2) 60 gm (3) 70 gm (4) 80 gm
38. The colour of meat is due to the pigment :
(1) Lycopene (2) Heamoglobin
(3) Myoglobin (4) None of the above
39. One of the following ingredients in meats helps to kill spores of anaerobic bacteria by heat and inhibit germination of surviving spores :
(1) Salt (2) Nitrites (3) Spices (4) Nitrates
40. Mostly meat is preserved under low temperature is :
(1) Chilling (2) Cold Storage (3) Refrigeration (4) Freezing
41. HACCP was developed by :
(1) Pillsbury and NASA (2) FDA
(3) USDA (4) FSIS
42. A critical control point is an operation by which :
(1) Monitoring is considered unnecessary
(2) Hazards can be eliminated, minimized or prevented
(3) Contamination becomes certain
(4) All risks can be completely eliminated
43. How the upgradation system in an organization for establishing ISO 9000 is assessed ?
(1) Simplex method (2) Dual Method
(3) Gap analysis (4) All of the above

44. Which of the following does not fall under Global Food Safety Initiatives (GFSI) ?
(1) ISO 9001 (2) BRC
(3) FSC 22000 (4) SQF
45. The characteristic flavour of banana is due to the :
(1) Benzaldehyde (2) Cis-4-heptenal
(3) Isopentyl acetate (4) Isothiocyanate
46. Which of the following contributes to the flavour of cream ?
(1) Benzaldehyde (2) Cis- 4- hyptenal
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47. Clostridium botulinum is :
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(3) Facultative anaerobic (4) Facultative aerobic
48. Sauerkraut is a fermented product made from the :
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(3) Tomato (4) Cauliflower
49. Among the following, the most heat resistance pathogens found in food :
(1) Clostridium botulinum (2) Bacillus stearothermophilus
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50. In growth of microbial culture, the phase in which, there is no growth or even a decline in numbers of microorganisms is called :
(1) Death phase (2) Lag phase
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51. The phase is which the rate of multiplication is most rapid and is constant is known as :
(1) Death phase (2) Lag phase
(3) Exponential phase (4) Logarithmic Phase
52. Generally TDT curve is plotted on :
(1) Simple graph paper (2) Log- log paper
(3) Semi log paper (4) Plain paper

53. The time of heating at a specified temperature required to destroy 90% of organism in a population is known as :
- (1) D-value (2) Z-value (3) F-value (4) Fo-value
54. Clostridium botulirum type E which has a minimum temperature for growth of about :
- (1) 0°C (2) 3.3°C (3) -3.3°C (4) 5°C
55. Aspergillus flavus and A. parasiticus molds are responsible to produce a toxin in food is known as :
- (1) Aflatoxin (2) Mycotoxin (3) Neurotoxin (4) Enterotoxin
56. Mycotoxins are :
- (1) Fungal metabolites (2) Bacterial metabolites
(3) Plant parasites (4) Enzyme
57. The machine used for making scratch over whole grain of pulse is :
- (1) Gota machine (2) Emery roller
(3) Concave type machine (4) Screw conveyor
58. Separation of broken rice and head rice is known as :
- (1) Scalping (2) Screening
(3) Sorting (4) Grading
59. The purpose of tempering of wheat through tempering bin is employed to :
- (1) Raise the moisture
(2) Reduce the moisture
(3) Equalize the moisture in whole grain
(4) Raise the temperature
60. The FSS Act of Government of India is controlled by :
- (1) Ministry of Agriculture
(2) Ministry of Food Processing Industries
(3) Ministry of Health and Family Welfare
(4) Ministry of Food

61. Which of the following is a food safety standard ?
(1) ISO 9001 (2) ISO 22000
(3) ISO 14000 (4) IS 22001
62. CAC is the abbreviated form for :
(1) Critical Allowable Clearance
(2) Codex Alimentarius Commission
(3) Central Association of Consumers
(4) Consortium of Applied Chemists
63. In 1963, FAO and WHO established a commission for setting of food standards which is known as :
(1) FPO (2) PFA (3) CAC (4) BIS
64. The amount of lactose in human milk is about :
(1) 4.4% (2) 5.4% (3) 7.4% (4) 9.4%
65. The sugar found in malted grain is :
(1) Glucose (2) Maltose (3) Sucrose (4) Galactose
66. is not digested by the human body :
(1) Fiber (2) Protein
(3) Fat (4) Carbohydrates
67. Dextrinization is a process of :
(1) Dry heating (2) Drying
(3) Heating with steam (4) Hydrolyzing
68. Each gram of oil or fat supplies :
(1) 3 kcal of energy (2) 6 kcal of energy
(3) 9 kcal of energy (4) 12 kcal of energy
69. Which of the following mineral is not required by human being ?
(1) Sulphur (2) Chlorine
(3) Aluminum (4) Manganese

70. Vitamin C is also known as :
- (1) Ascorbic acid (2) Citric acid
(3) Lactic acid (4) Malic acid
71. is a water soluble yellow pigment.
- (1) Thiamine (2) Riboflavin
(3) Niacin (4) Biotin
72. Which of the following are denatured by heat ?
- (1) Vitamin (2) Minerals
(3) Enzymes (4) Fat
73. Idli and dhokla are good example of :
- (1) Fast foods (2) Organic foods
(3) Purified foods (4) Fermented foods
74. The characteristic penetrating flavour of garlic, onion and related species is due to compounds.
- (1) Sulphur (2) Phosphorus
(3) Iron (4) Magnesium
75. Lipid oxidation in foods are accelerated by :
- (1) Al and Cu (2) Fe and Cu
(3) Hg and Cu (4) Cu and Zn
76. Fish Contains fatty acids.
- (1) Free (2) Saturated
(3) Monounsaturated (4) Polyunsaturated
77. The characteristic pungent flavour of Chillies is due to :
- (1) Capsaicin (2) Tannin
(3) Anthocyanin (4) None of the above
78. The equation which expresses the energy balance for fluid flow is :
- (1) Fourier equation (2) Laplace equation
(3) Continuity equation (4) Bernoulli's equation

79. A 5 percent sugar solution means that :
- (1) 5 gram of sugar is dissolved in 95 gram of water
 - (2) 5 gram of sugar is dissolved in 100 gram of water
 - (3) Both (1) and (2) are true
 - (4) None of the above
80. The amount of heat required to raise the temperature of 1 kg of milk by 1 degree celsius in comparison of water is :
- (1) 93%
 - (2) 97%
 - (3) 101%
 - (4) 103%
81. If n & N represents the number of moles of a solutes and solvent respectively, the mole fraction of the solvent is given by :
- (1) $\frac{N}{n+N}$
 - (2) $\frac{n}{n+N}$
 - (3) $\frac{n+N}{n}$
 - (4) $\frac{n+N}{N}$
82. Golden rice is a rich source of :
- (1) Vitamin A
 - (2) Vitamin B₁₂
 - (3) Vitamin C
 - (4) Vitamin D
83. Microwave can penetrate the food upto the depth of :
- (1) 20 cm
 - (2) 15 cm
 - (3) 10 cm
 - (4) 5 cm
84. 'Scurvy' is caused due to deficiency of :
- (1) Vitamin A
 - (2) Vitamin B
 - (3) Vitamin C
 - (4) Minerals
85. The nutrient most sensitive to processing & cooking are :
- (1) Proteins
 - (2) Carbohydrates
 - (3) Minerals
 - (4) Vitamins
86. For size reduction, the following method(s) is/are used :
- (1) Cutting
 - (2) Crushing
 - (3) Compression
 - (4) All of the above

87. Hammer mill and burr mill are used for the grinding of :
- (1) Grain (2) Oil seed
(3) Milk powder (4) Fruit powder
88. In a ball mill or pebble mill, most of size reduction is done by :
- (1) Shearing (2) Impact
(3) Cutting (4) Crushing
89. The Homogenization reduces the mean diameter of fat globules by a factor of :
- (1) 1 (2) 10 (3) 100 (4) 1000
90. Hermetically sealed containers are essential for :
- (1) Vacuum and pressure packaging (2) Aseptic packaging
(3) Flexible packaging (4) Controlled atmosphere packaging
91. In modified atmosphere packaging :
- (1) CO_2 and O_2 level increase
(2) CO_2 level increase & O_2 level decrease
(3) CO_2 level decrease & O_2 level increase
(4) CO_2 and O_2 levels remain constant
92. Packaging film which is used for better MAP is :
- (1) LDPE (2) HDPE
(3) Polypropylene (4) LLDPE
93. Which of the following material is not used for aseptic packaging ?
- (1) Plastics (2) Aluminum
(3) Stainless steel (4) Glass
94. Which of the following is the suitable packaging material for dried milk products ?
- (1) Carton lined with aluminum foil
(2) Bags of plastic coated paper
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25. Which of the following materials is the best for packaging of liquid for products ?
(1) Glass (2) Plastic film (3) Steel (4) Wood
26. For Corrosive or non corrosive low acid foods and dry products, type of steel base required :
(1) Type L (2) Type MS
(3) Type L and Type MS (4) Type MR or MC
27. The main constituent of wood that is important in paper making is :
(1) Cellulose (2) Fibres
(3) Starch (4) Pentosan
28. In an actively modified MAP/CAS, which of the following can be used as an oxygen absorber ?
(1) Magnesium oxide (2) Activated charcoal
(3) Ferrous oxide (4) Potassium permanganate
29. Size reduction by serrated roll crushers are by :
(1) Compression and shear (2) Compression, shear & impact
(3) Shear and impact (4) Only compression
30. The type of drier in which the grain is dried in suspended state is known as :
(1) Kiln dryer (2) Forced convection dryer
(3) Spray deyer (4) Fluidized bed dryer
31. Carbohydrates contain the elements :
(1) Carbon and hydrogen
(2) Carbon and oxygen
(3) Carbon, hydrogen, oxygen & nitrogen
(4) Carbon, hydrogen and oxygen
32. provides the energy needed to transform the carbon dioxide and water into carbohydrates.
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- (1) Ministry of Agriculture
 - (2) Ministry of Food Processing Industries
 - (3) Ministry of Health and Family Welfare
 - (4) Ministry of Food
51. Which of the following is a food safety standard ?
- (1) ISO 9001
 - (2) ISO 22000
 - (3) ISO 14000
 - (4) IS 22001
52. CAC is the abbreviated form for :
- (1) Critical Allowable Clearance
 - (2) Codex Alimentarius Commission
 - (3) Central Association of Consumers
 - (4) Consortium of Applied Chemists
53. In 1963, FAO and WHO established a commission for setting of food standards which is known as :
- (1) FPO
 - (2) PFA
 - (3) CAC
 - (4) BIS
54. The amount of lactose in human milk is about :
- (1) 4.4%
 - (2) 5.4%
 - (3) 7.4%
 - (4) 9.4%
55. The sugar found in malted grain is :
- (1) Glucose
 - (2) Maltose
 - (3) Sucrose
 - (4) Galactose
56. is not digested by the human body :
- (1) Fiber
 - (2) Protein
 - (3) Fat
 - (4) Carbohydrates
57. Dextrinization is a process of :
- (1) Dry heating
 - (2) Drying
 - (3) Heating with steam
 - (4) Hydrolyzing

58. Each gram of oil or fat supplies :
- | | |
|----------------------|-----------------------|
| (1) 3 kcal of energy | (2) 6 kcal of energy |
| (3) 9 kcal of energy | (4) 12 kcal of energy |
59. Which of the following mineral is not required by human being ?
- | | |
|--------------|---------------|
| (1) Sulphur | (2) Chlorine |
| (3) Aluminum | (4) Manganese |
60. Vitamin C is also known as :
- | | |
|-------------------|-----------------|
| (1) Ascorbic acid | (2) Citric acid |
| (3) Lactic acid | (4) Malic acid |
61. Guava is a rich source of :
- | | |
|-------------------|-------------------|
| (1) Vitamin A | (2) Vitamin C |
| (3) Carbohydrates | (4) Beta-carotene |
62. Potato is the rich source of :
- | | | | |
|------------|-------------|---------|--------------|
| (1) Starch | (2) Vitamin | (3) Fat | (4) Minerals |
|------------|-------------|---------|--------------|
63. Cow milk's protein is :
- | | |
|------------|------------------|
| (1) Casein | (2) Albumin |
| (3) Zein | (4) Lactoalbumin |
64. Paneer is a :
- | | |
|-------------------------------|------------------------|
| (1) Concentrated milk product | (2) Dried milk product |
| (3) Coagulated milk product | (4) Fermented product |
65. Buffalo milk is rich source of following minerals :
- | | |
|---------------------------|----------------------------|
| (1) Calcium and iron | (2) Copper and iron |
| (3) Copper and phosphorus | (4) Calcium and phosphorus |
66. Butter is an emulsion of :
- | | |
|--------------------|------------------|
| (1) Water in oil | (2) Oil in water |
| (3) Water in water | (4) Oil in oil |

67. Standard fat percentage in toned and double toned milks are :
- (1) 3.5 and 1.5 (2) 1.5 and 3.5
(3) 3.0 and 1.5 (4) 1.5 and 3.0
68. Yellow colour of cow milk is due to the presence of :
- (1) Casein (2) Carotene
(3) Fat (4) Lacto-Chrome
69. Acidity of milk is expressed as :
- (1) Citric acid (2) Oleic acid
(3) Butyric acid (4) Lactic acid
70. Milk is deficient in which of the following :
- (1) Iron (2) Calcium
(3) Copper (4) Potassium
71. After the oil treatment, the pulses are kept for about 12 hours to allow proper penetration to take place in the pulse kernel is called :
- (1) Conditioning (2) Oil penetration
(3) Tempering (4) Saponification
72. Break rolls have :
- (1) Smooth Surface (2) Corrugated surface
(3) Rough Surface (4) Hole in surface
73. Jelly is food product.
- (1) Solid (2) Liquid (3) Syrup (4) Semi- Solid
74. Blanching refers to :
- (1) Inactivate the enzyme (2) Cooking the food
(3) Drying of food (4) Sterilization of food
75. In souce/Ketch up, tamarind pulp and pomegranate seed powder is used to increase :
- (1) Acidity (2) Palatability
(3) Digestion (4) Sweetness

76. Aroma of over ripe fruit of banana is due to :
- (1) Allicin (2) Isopentanol
(3) Isothiocyanate (4) Capsaicin
77. Richest source of Vitamin C among the fruits :
- (1) Amla (2) Lemon
(3) Barbados Cherry (4) Guava
78. Zero energy chamber operates on the principle of :
- (1) Boyle's law (2) Charle's law
(3) Evaporative cooling (4) Second law of thermodynamics
79. Sodium benzoate is used for preservation of fruit juices in the range of :
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(3) 1.0% to 1.5% (4) 1.5% to 2.0%
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- (1) Strawberry (2) Apple
(3) Pineapple (4) Apricot
81. If n & N represents the number of moles of a solutes and solvent respectively, the mole fraction of the solvent is given by :
- (1) $\frac{N}{n+N}$ (2) $\frac{n}{n+N}$ (3) $\frac{n+N}{n}$ (4) $\frac{n+N}{N}$
82. Golden rice is a rich source of :
- (1) Vitamin A (2) Vitamin B₁₂
(3) Vitamin C (4) Vitamin D
83. Microwave can penetrate the food upto the depth of :
- (1) 20 cm (2) 15 cm (3) 10 cm (4) 5 cm
84. 'Scurvy' is caused due to deficiency of :
- (1) Vitamin A (2) Vitamin B
(3) Vitamin C (4) Minerals

85. The nutrient most sensitive to processing & cooking are :
- (1) Proteins (2) Carbohydrates
(3) Minerals (4) Vitamins
86. For size reduction, the following method(s) is/are used :
- (1) Cutting (2) Crushing
(3) Compression (4) All of the above
87. Hammer mill and burr mill are used for the grinding of :
- (1) Grain (2) Oil seed
(3) Milk powder (4) Fruit powder
88. In a ball mill or pebble mill, most of size reduction is done by :
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89. The Homogenization reduces the mean diameter of fat globules by a factor of :
- (1) 1 (2) 10 (3) 100 (4) 1000
90. Hermetically sealed containers are essential for :
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- (1) Casein (2) Albumin
(3) Globulin (4) Phospholipids
92. When HTST pasteurization is performed, the milk is heated at :
- (1) 72°C (2) 65°C
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- (1) pH (2) Candling
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94. Buffalo meat contains white fat as :
- (1) WBC (2) RBC
(3) Yellow pigment (4) Carotene covered to Vitamin A
95. Amount of protein in an egg is :
- (1) 600 Iu (2) 600 mg (3) 6.6 gm (4) 9.3 gm
96. Removal of feather from scaled bird is known as :
- (1) Picking (2) Pinning (3) Scalding (4) Singing
97. According to ISI, the size of extra large egg is :
- (1) 50 gm (2) 60 gm (3) 70 gm (4) 80 gm
98. The colour of meat is due to the pigment :
- (1) Lycopene (2) Heamoglobin
(3) Myoglobin (4) None of the above
99. One of the following ingredients in meats helps to kill spores of anaerobic bacteria by heat and inhibit germination of surviving spores :
- (1) Salt (2) Nitrites (3) Spices (4) Nitrates
100. Mostly meat is preserved under low temperature is :
- (1) Chilling (2) Cold Storage (3) Refrigeration (4) Freezing

Total No. of Printed Pages : 13

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C

M.Phil./Ph.D./URS-EE-2019

SET-Z

SUBJECT : Food Technology

Sr. No. 10007

Time : 1¼ Hours

Max. Marks : 100

Total Questions : 100

Roll No. (in figures) _____ (in words) _____

Name _____ Father's Name _____

Mother's Name _____ Date of Examination _____

(Signature of the Candidate)

(Signature of the Invigilator)

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4. Question Booklet along with answer key of all the A, B, C & D code will be got uploaded on the University website after the conduct of Entrance Examination. In case there is any discrepancy in the Question Booklet/Answer Key, the same may be brought to the notice of the Controller of Examination in writing/through E.Mail within 24 hours of uploading the same on the University Website. Thereafter, no complaint in any case, will be considered.
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MPH/PHD/URS-EE-2019/(Food Technology)(SET-Z)/(C)

SEAL

1. Guava is a rich source of :

- | | |
|-------------------|-------------------|
| (1) Vitamin A | (2) Vitamin C |
| (3) Carbohydrates | (4) Beta-carotene |

2. Potato is the rich source of :

- | | | | |
|------------|-------------|---------|--------------|
| (1) Starch | (2) Vitamin | (3) Fat | (4) Minerals |
|------------|-------------|---------|--------------|

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10. Milk is deficient in which of the following :
- (1) Iron (2) Calcium
(3) Copper (4) Potassium
11. The phase in which the rate of multiplication is most rapid and is constant is known as :
- (1) Death phase (2) Lag phase
(3) Exponential phase (4) Logarithmic Phase
12. Generally TDT curve is plotted on :
- (1) Simple graph paper (2) Log- log paper
(3) Semi log paper (4) Plain paper
13. The time of heating at a specified temperature required to destroy 90% of organism in a population is known as :
- (1) D-value (2) Z-value (3) F-value (4) Fo-value
14. *Clostridium botulinum* type E which has a minimum temperature for growth of about :
- (1) 0°C (2) 3.3°C (3) - 3.3°C (4) 5°C
15. *Aspergillus flavus* and *A. parasiticus* molds are responsible to produce a toxin in food is known as :
- (1) Aflatoxin (2) Mycotoxin (3) Neurotoxin (4) Enterotoxin
16. Mycotoxins are :
- (1) Fungal metabolites (2) Bacterial metabolites
(3) Plant parasites (4) Enzyme
17. The machine used for making scratch over whole grain of pulse is :
- (1) Gota machine (2) Emery roller
(3) Concave type machine (4) Screw conveyor
18. Separation of broken rice and head rice is known as :
- (1) Scalping (2) Screening
(3) Sorting (4) Grading

19. The purpose of tempering of wheat through tempering bin is employed to :
- (1) Raise the moisture
 - (2) Reduce the moisture
 - (3) Equalize the moisture in whole grain
 - (4) Raise the temperature
20. The FSS Act of Government of India is controlled by :
- (1) Ministry of Agriculture
 - (2) Ministry of Food Processing Industries
 - (3) Ministry of Health and Family Welfare
 - (4) Ministry of Food
21. If n & N represents the number of moles of a solutes and solvent respectively, the mole fraction of the solvent is given by :
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(3) Flexible packaging (4) Controlled atmosphere packaging
31. is a water soluble yellow pigment.
- (1) Thiamine (2) Riboflavin
(3) Niacin (4) Biotin
32. Which of the following are denatured by heat ?
- (1) Vitamin (2) Minerals
(3) Enzymes (4) Fat
33. Idli and dhokla are good example of :
- (1) Fast foods (2) Organic foods
(3) Purified foods (4) Fermented foods
34. The characteristic penetrating flavour of garlic, onion and related species is due to compounds.
- (1) Sulphur (2) Phosphorus
(3) Iron (4) Magnesium
35. Lipid oxidation in foods are accelerated by :
- (1) Al and Cu (2) Fe and Cu
(3) Hg and Cu (4) Cu and Zn

36. Fish Contains fatty acids.
- (1) Free (2) Saturated
(3) Monounsaturated (4) Polyunsaturated
37. The characteristic pungent flavour of Chillies is due to :
- (1) Capsaicin (2) Tannin
(3) Anthocyanin (4) None of the above
38. The equation which expresses the energy balance for fluid flow is :
- (1) Fourier equation (2) Laplace equation
(3) Continuity equation (4) Bernoulli's equation
39. A 5 percent sugar solution means that :
- (1) 5 gram of sugar is dissolved in 95 gram of water
(2) 5 gram of sugar is dissolved in 100 gram of water
(3) Both (1) and (2) are true
(4) None of the above
40. The amount of heat required to raise the temperature of 1 kg of milk by 1 degree celsius in comparison of water is :
- (1) 93% (2) 97% (3) 101% (4) 103%
41. Carbohydrates contain the elements :
- (1) Carbon and hydrogen
(2) Carbon and oxygen
(3) Carbon, hydrogen, oxygen & nitrogen
(4) Carbon, hydrogen and oxygen
42. provides the energy needed to transform the carbon dioxide and water into carbohydrates.
- (1) Sunlight (2) Photosynthesis
(3) Oxygen (4) Chemical reaction

43. Basal Metabolic Rate (BMR) is the required for activity of internal organs when man is on complete rest.
- (1) Food (2) Energy
(3) Oxygen (4) Water
44. Each gram carbohydrate supplies of energy to the body :
- (1) 4 kcal (2) 6 kcal (3) 8 kcal (4) 10 kcal
45. Excess intake of carbohydrates is converted to :
- (1) Glucose (2) Fructose
(3) Fat (4) Blood Sugar
46. Pudding cake, pastries etc. are made from :
- (1) Self raising flour (2) Bread flour
(3) Biscuit flour (4) Cake flour
47. Flaked rice is made from :
- (1) Raw rice (2) Brown rice
(3) Parboiled rice (4) Bulgur
48. During bread making, the elasticity of gluten is controlled by :
- (1) Glutenin (2) Gliadin (3) Water (4) Yeast
49. In rice polishing :
- (1) A coating is applied on the outer surface of brown rice
(2) A layer of bran is removed from brown rice
(3) A layer of starch is removed
(4) Only husk is removed
50. In dry milling process prior to treatment with oil, the following operation is done :
- (1) Grading (2) Polishing
(3) Conditioning (4) Pitting

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70. Which of the following is best suitable for jelly making ?
(1) Strawberry (2) Apple
(3) Pineapple (4) Apricot
71. HACCP was developed by :
(1) Pillsbury and NASA (2) FDA
(3) USDA (4) FSIS
72. A critical control point is an operation by which :
(1) Monitoring is considered unnecessary
(2) Hazards can be eliminated, minimized or prevented
(3) Contamination becomes certain
(4) All risks can be completely eliminated
73. How the upgradation system in an organization for establishing ISO 9000 is assessed ?
(1) Simplex method (2) Dual Method
(3) Gap analysis (4) All of the above
74. Which of the following does not fall under Global Food Safety Initiatives (GFSI) ?
(1) ISO 9001 (2) BRC
(3) FSC 22000 (4) SQF
75. The characteristic flavour of banana is due to the :
(1) Benzaldehyde (2) Cis-4-heptenal
(3) Isopentyl acetate (4) Isothiocyanate
76. Which of the following contributes to the flavour of cream ?
(1) Benzaldehyde (2) Cis- 4- hyptenal
(3) Acetaldehyde (4) Geosmin
77. Clostridium botulinum is :
(1) Aerobic bacteria (2) Anaerobic bacteria
(3) Facultative anaerobic (4) Facultative aeròbic

78. Sauerkraut is a fermented product made from the :
- (1) Cabbage (2) Barley
(3) Tomato (4) Cauliflower
79. Among the following, the most heat resistance pathogens found in food :
- (1) Clostridium botulinum (2) Bacillus stearothermophilus
(3) Micrococcus (4) Both (1) & (2)
80. In growth of microbial culture, the phase in which, there is no growth or even a decline in numbers of microorganisms is called :
- (1) Death phase (2) Lag phase
(3) Exponential phase (4) Positive acceleration phase
81. In modified atmosphere packaging :
- (1) CO₂ and O₂ level increase
(2) CO₂ level increase & O₂ level decrease
(3) CO₂ level decrease & O₂ level increase
(4) CO₂ and O₂ levels remain constant
82. Packaging film which is used for better MAP is :
- (1) LDPE (2) HDPE
(3) Polypropylene (4) LLDPE
83. Which of the following material is not used for aseptic packaging ?
- (1) Plastics (2) Aluminum
(3) Stainless steel (4) Glass
84. Which of the following is the suitable packaging material for dried milk products ?
- (1) Carton lined with aluminum foil
(2) Bags of plastic coated paper
(3) Aluminum polyethylene foil bags
(4) All of the above

93. In 1963, FAO and WHO established a commission for setting of food standards which is known as :
- (1) FPO (2) PFA (3) CAC (4) BIS
94. The amount of lactose in human milk is about :
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SET-Z

D

M.Phil./Ph.D./URS-EE-2019

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Sr. No. 10016

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Max. Marks : 100

Total Questions : 100

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8. **Before answering the questions, the candidates should ensure that they have been supplied correct and complete booklet. Complaints, if any, regarding misprinting etc. will not be entertained 30 minutes after starting of the examination.**

MPH/PHD/URS-EE-2019/(Food Technology)(SET-Z)/(D)

SEAL

1. In modified atmosphere packaging :
 - (1) CO₂ and O₂ level increase
 - (2) CO₂ level increase & O₂ level decrease
 - (3) CO₂ level decrease & O₂ level increase
 - (4) CO₂ and O₂ levels remain constant
2. Packaging film which is used for better MAP is :
 - (1) LDPE
 - (2) HDPE
 - (3) Polypropylene
 - (4) LLDPE
3. Which of the following material is not used for aseptic packaging ?
 - (1) Plastics
 - (2) Aluminum
 - (3) Stainless steel
 - (4) Glass
4. Which of the following is the suitable packaging material for dried milk products ?
 - (1) Carton lined with aluminum foil
 - (2) Bags of plastic coated paper
 - (3) Aluminum polyethylene foil bags
 - (4) All of the above
5. Which of the following materials is the best for packaging of liquid for products ?
 - (1) Glass
 - (2) Plastic film
 - (3) Steel
 - (4) Wood
6. For Corrosive or non corrosive low acid foods and dry products, type of steel base required :
 - (1) Type L
 - (2) Type MS
 - (3) Type L and Type MS
 - (4) Type MR or MC
7. The main constituent of wood that is important in paper making is :
 - (1) Cellulose
 - (2) Fibres
 - (3) Starch
 - (4) Pentosan

8. In an actively modified MAP/CAS, which of the following can be used as an oxygen absorber ?
- (1) Magnesium oxide (2) Activated charcoal
(3) Ferrous oxide (4) Potassium permanganate
9. Size reduction by serrated roll crushers are by :
- (1) Compression and shear (2) Compression, shear & impact
(3) Shear and impact (4) Only compression
10. The type of drier in which the grain is dried in suspended state is known as :
- (1) Kiln dryer (2) Forced convection dryer
(3) Spray dryer (4) Fluidized bed dryer
11. Milk viscosity is due to which constituent of milk :
- (1) Casein (2) Albumin
(3) Globulin (4) Phospholipids
12. When HTST pasteurization is performed, the milk is heated at :
- (1) 72°C (2) 65°C
(3) 81°C (4) 130°C
13. Quality of egg can be judged by :
- (1) pH (2) Candling
(3) Annealing (4) Temperature test
14. Buffalo meat contains white fat as :
- (1) WBC (2) RBC
(3) Yellow pigment (4) Carotene covered to Vitamin A
15. Amount of protein in an egg is :
- (1) 600 Iu (2) 600 mg (3) 6.6 gm (4) 9.3 gm
16. Removal of feather from scaled bird is known as :
- (1) Picking (2) Pinning (3) Scalding (4) Singing

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17. According to ISI, the size of extra large egg is :
(1) 50 gm (2) 60 gm (3) 70 gm (4) 80 gm
18. The colour of meat is due to the pigment :
(1) Lycopene (2) Heamoglobin
(3) Myoglobin (4) None of the above
19. One of the following ingredients in meats helps to kill spores of anaerobic bacteria by heat and inhibit germination of surviving spores :
(1) Salt (2) Nitrites (3) Spices (4) Nitrates
20. Mostly meat is preserved under low temperature is :
(1) Chilling (2) Cold Storage (3) Refrigeration (4) Freezing
21. is a water soluble yellow pigment.
(1) Thiamine (2) Riboflavin
(3) Niacin (4) Biotin
22. Which of the following are denatured by heat ?
(1) Vitamin (2) Minrals
(3) Enzymes (4) Fat
23. Idli and dhokla are good example of :
(1) Fast foods (2) Organic foods
(3) Purified foods (4) Fermented foods
24. The characteristic penetrating flavour of garlic, onion and related species is due to compounds.
(1) Sulphur (2) Phosphorus
(3) Iron (4) Magnesium
25. Lipid oxidation in foods are accelerated by :
(1) Al and Cu (2) Fe and Cu
(3) Hg and Cu (4) Cu and Zn

26. Fish Contains fatty acids.
- (1) Free (2) Saturated
(3) Monounsaturated (4) Polyunsaturated
27. The characteristic pungent flavour of Chillies is due to :
- (1) Capsaicin (2) Tannin
(3) Anthocyanin (4) None of the above
28. The equation which expresses the energy balance for fluid flow is :
- (1) Fourier equation (2) Laplace equation
(3) Continuity equation (4) Bernoulli's equation
29. A 5 percent sugar solution means that :
- (1) 5 gram of sugar is dissolved in 95 gram of water
(2) 5 gram of sugar is dissolved in 100 gram of water
(3) Both (1) and (2) are true
(4) None of the above
30. The amount of heat required to raise the temperature of 1 kg of milk by 1 degree celsius in comparison of water is :
- (1) 93% (2) 97% (3) 101% (4) 103%
31. Guava is a rich source of :
- (1) Vitamin A (2) Vitamin C
(3) Carbohydrates (4) Beta-carotene
32. Potato is the rich source of :
- (1) Starch (2) Vitamin (3) Fat (4) Minerals
33. Cow milk's protein is :
- (1) Casein (2) Albumin
(3) Zein (4) Lactoalbumin

34. Paneer is a :

- | | |
|-------------------------------|------------------------|
| (1) Concentrated milk product | (2) Dried milk product |
| (3) Coagulated milk product | (4) Fermented product |

35. Buffalo milk is rich source of following minerals :

- | | |
|---------------------------|----------------------------|
| (1) Calcium and iron | (2) Copper and iron |
| (3) Copper and phosphorus | (4) Calcium and phosphorus |

36. Butter is an emulsion of :

- | | |
|--------------------|------------------|
| (1) Water in oil | (2) Oil in water |
| (3) Water in water | (4) Oil in oil |

37. Standard fat percentage in toned and double toned milks are :

- | | |
|-----------------|-----------------|
| (1) 3.5 and 1.5 | (2) 1.5 and 3.5 |
| (3) 3.0 and 1.5 | (4) 1.5 and 3.0 |

38. Yellow colour of cow milk is due to the presence of :

- | | |
|------------|------------------|
| (1) Casein | (2) Carotene |
| (3) Fat | (4) Lacto-Chrome |

39. Acidity of milk is expressed as :

- | | |
|------------------|-----------------|
| (1) Citric acid | (2) Oleic acid |
| (3) Butyric acid | (4) Lactic acid |

40. Milk is deficient in which of the following :

- | | |
|------------|---------------|
| (1) Iron | (2) Calcium |
| (3) Copper | (4) Potassium |

41. Which of the following is a food safety standard ?

- | | |
|---------------|---------------|
| (1) ISO 9001 | (2) ISO 22000 |
| (3) ISO 14000 | (4) IS 22001 |

42. CAC is the abbreviated form for :
- (1) Critical Allowable Clearance
 - (2) Codex Alimentarius Commission
 - (3) Central Association of Consumers
 - (4) Consortium of Applied Chemists
43. In 1963, FAO and WHO established a commission for setting of food standards which is known as :
- (1) FPO
 - (2) PFA
 - (3) CAC
 - (4) BIS
44. The amount of lactose in human milk is about :
- (1) 4.4%
 - (2) 5.4%
 - (3) 7.4%
 - (4) 9.4%
45. The sugar found in malted grain is :
- (1) Glucose
 - (2) Maltose
 - (3) Sucrose
 - (4) Galactose
46. is not digested by the human body :
- (1) Fiber
 - (2) Protein
 - (3) Fat
 - (4) Carbohydrates
47. Dextrinization is a process of :
- (1) Dry heating
 - (2) Drying
 - (3) Heating with steam
 - (4) Hydrolyzing
48. Each gram of oil or fat supplies :
- (1) 3 kcal of energy
 - (2) 6 kcal of energy
 - (3) 9 kcal of energy
 - (4) 12 kcal of energy
49. Which of the following mineral is not required by human being ?
- (1) Sulphur
 - (2) Chlorine
 - (3) Aluminum
 - (4) Manganese
50. Vitamin C is also known as :
- (1) Ascorbic acid
 - (2) Citric acid
 - (3) Lactic acid
 - (4) Malic acid

51. If n & N represents the number of moles of a solutes and solvent respectively, the mole fraction of the solvent is given by :
- (1) $\frac{N}{n+N}$ (2) $\frac{n}{n+N}$ (3) $\frac{n+N}{n}$ (4) $\frac{n+N}{N}$
52. Golden rice is a rich source of :
- (1) Vitamin A (2) Vitamin B₁₂
(3) Vitamin C (4) Vitamin D
53. Microwave can penetrate the food upto the depth of :
- (1) 20 cm (2) 15 cm (3) 10 cm (4) 5 cm
54. 'Scurvy' is caused due to deficiency of :
- (1) Vitamin A (2) Vitamin B
(3) Vitamin C (4) Minerals
55. The nutrient most sensitive to processing & cooking are :
- (1) Proteins (2) Carbohydrates
(3) Minerals (4) Vitamins
56. For size reduction, the following method(s) is/are used :
- (1) Cutting (2) Crushing
(3) Compression (4) All of the above
57. Hammer mill and burr mill are used for the grinding of :
- (1) Grain (2) Oil seed
(3) Milk powder (4) Fruit powder
58. In a ball mill or pebble mill, most of size reduction is done by :
- (1) Shearing (2) Impact
(3) Cutting (4) Crushing
59. The Homogenization reduces the mean diameter of fat globules by a factor of :
- (1) 1 (2) 10 (3) 100 (4) 1000

60. Hermetically sealed containers are essential for :
- (1) Vacuum and pressure packaging
 - (2) Aseptic packaging
 - (3) Flexible packaging
 - (4) Controlled atmosphere packaging
61. HACCP was developed by :
- (1) Pillsbury and NASA
 - (2) FDA
 - (3) USDA
 - (4) FSIS
62. A critical control point is an operation by which :
- (1) Monitoring is considered unnecessary
 - (2) Hazards can be eliminated, minimized or prevented
 - (3) Contamination becomes certain
 - (4) All risks can be completely eliminated
63. How the upgradation system in an organization for establishing ISO 9000 is assessed ?
- (1) Simplex method
 - (2) Dual Method
 - (3) Gap analysis
 - (4) All of the above
64. Which of the following does not fall under Global Food Safety Initiatives (GFSI) ?
- (1) ISO 9001
 - (2) BRC
 - (3) FSC 22000
 - (4) SQF
65. The characteristic flavour of banana is due to the :
- (1) Benzaldehyde
 - (2) Cis-4-heptenal
 - (3) Isopentyl acetate
 - (4) Isothiocyanate
66. Which of the following contributes to the flavour of cream ?
- (1) Benzaldehyde
 - (2) Cis- 4- hyptenal
 - (3) Acetaldehyde
 - (4) Geosmin
67. Clostridium botulinum is :
- (1) Aerobic bacteria
 - (2) Anaerobic bacteria
 - (3) Facultative anaerobic
 - (4) Facultative aerobic

68. Sauerkraut is a fermented product made from the :
(1) Cabbage (2) Barley
(3) Tomato (4) Cauliflower
69. Among the following, the most heat resistance pathogens found in food :
(1) Clostridium botulinum (2) Bacillus stearothermophilus
(3) Micrococcus (4) Both (1) & (2)
70. In growth of microbial culture, the phase in which, there is no growth or even a decline in numbers of microorganisms is called :
(1) Death phase (2) Lag phase
(3) Exponential phase (4) Positive acceleration phase
71. The phase in which the rate of multiplication is most rapid and is constant is known as :
(1) Death phase (2) Lag phase
(3) Exponential phase (4) Logarithmic Phase
72. Generally TDT curve is plotted on :
(1) Simple graph paper (2) Log- log paper
(3) Semi log paper (4) Plain paper
73. The time of heating at a specified temperature required to destroy 90% of organism in a population is known as :
(1) D-value (2) Z-value (3) F-value (4) Fo-value
74. Clostridium botulinum type E which has a minimum temperature for growth of about :
(1) 0°C (2) 3.3°C (3) -3.3°C (4) 5°C
75. Aspergillus flavus and A. parasiticus molds are responsible to produce a toxin in food is known as :
(1) Aflatoxin (2) Mycotoxin (3) Neurotoxin (4) Enterotoxin
76. Mycotoxins are :
(1) Fungal metabolites (2) Bacterial metabolites
(3) Plant parasites (4) Enzyme

77. The machine used for making scratch over whole grain of pulse is :
- (1) Gota machine
 - (2) Emery roller
 - (3) Concave type machine
 - (4) Screw conveyer
78. Separation of broken rice and head rice is known as :
- (1) Scalping
 - (2) Screening
 - (3) Sorting
 - (4) Grading
79. The purpose of tempering of wheat through tempering bin is employed to :
- (1) Raise the moisture
 - (2) Reduce the moisture
 - (3) Equalize the moisture in whole grain
 - (4) Raise the temperature
80. The FSS Act of Government of India is controlled by :
- (1) Ministry of Agriculture
 - (2) Ministry of Food Processing Industries
 - (3) Ministry of Health and Family Welfare
 - (4) Ministry of Food
81. Carbohydrates contain the elements :
- (1) Carbon and hydrogen
 - (2) Carbon and oxygen
 - (3) Carbon, hydrogen, oxygen & nitrogen
 - (4) Carbon, hydrogen and oxygen
82. provides the energy needed to transform the carbon dioxide and water into carbohydrates.
- (1) Sunlight
 - (2) Photosynthesis
 - (3) Oxygen
 - (4) Chemical reaction
83. Basal Metabolic Rate (BMR) is the required for activity of internal organs when man is on complete rest.
- (1) Food
 - (2) Energy
 - (3) Oxygen
 - (4) Water

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84. Each gram carbohydrate supplies of energy to the body :
(1) 4 kcal (2) 6 kcal (3) 8 kcal (4) 10 kcal
85. Excess intake of carbohydrates is converted to :
(1) Glucose (2) Fructose (3) Fat (4) Blood Sugar
86. Pudding cake, pastries etc. are made from :
(1) Self raising flour (2) Bread flour
(3) Biscuit flour (4) Cake flour
87. Flaked rice is made from :
(1) Raw rice (2) Brown rice
(3) Parboiled rice (4) Bulgur
88. During bread making, the elasticity of gluten is controlled by :
(1) Glutenin (2) Gliadin (3) Water (4) Yeast
89. In rice polishing :
(1) A coating is applied on the outer surface of brown rice
(2) A layer of bran is removed from brown rice
(3) A layer of starch is removed
(4) Only husk is removed
90. In dry milling process prior to treatment with oil, the following operation is done :
(1) Grading (2) Polishing
(3) Conditioning (4) Pitting
91. After the oil treatment, the pulses are kept for about 12 hours to allow proper penetration to take place in the pulse kernel is called :
(1) Conditioning (2) Oil penetration
(3) Tempering (4) Saponification
92. Break rolls have :
(1) Smooth Surface (2) Corrugated surface
(3) Rough Surface (4) Hole in surface

93. Jelly is food product.
(1) Solid (2) Liquid (3) Syrup (4) Semi- Solid
94. Blanching refers to :
(1) Inactivate the enzyme (2) Cooking the food
(3) Drying of food (4) Sterilization of food
95. In souce/Ketch up, tamarind pulp and pomegranate seed powder is used to increase :
(1) Acidity (2) Palatability
(3) Digestion (4) Sweetness
96. Aroma of over ripe fruit of banana is due to :
(1) Allicin (2) Isopentanol
(3) Isothiocyanate (4) Capsaicin
97. Richest source of Vitamin C among the fruits :
(1) Amla (2) Lemon
(3) Barbados Cherry (4) Guava
98. Zero energy chamber operates on the principle of :
(1) Boyle's law (2) Charle's law
(3) Evaporative cooling (4) Second law of thermodynamics
99. Sodium benzoate is used for preservation of fruit juices in the range of :
(1) 0.06 % to 0.10% (2) 0.10% to 0.20%
(3) 1.0% to 1.5% (4) 1.5% to 2.0%
100. Which of the following is best suitable for jelly making ?
(1) Strawberry (2) Apple
(3) Pineapple (4) Apricot

Answer Key of M.Phil/Ph.D 2019 (Food Technology)				
QUESTION NO.	CODE-A	CODE-B	CODE-C	CODE-D
1	D	A	B	B
2	A	B	A	C
3	B	C	A	C
4	A	A	C	D
5	C	C	B	A
6	A	B	A	D
7	C	B	C	A
8	A	A	B	C
9	B	D	D	B
10	C	B	A	D
11	A	B	C	A
12	B	C	C	A
13	D	D	A	B
14	A	A	B	D
15	A	B	A	C
16	B	D	A	A
17	C	A	B	B
18	C	D	D	C
19	A	A	C	D
20	B	A	C	A
21	B	B	A	B
22	A	C	A	C
23	A	C	B	D
24	C	D	C	A
25	B	A	D	B
26	A	D	D	D
27	C	A	A	A
28	B	C	B	D
29	D	B	B	A
30	A	D	A	A
31	A	D	B	B
32	A	A	C	A
33	B	B	D	A
34	D	A	A	C
35	C	C	B	B
36	A	A	D	A
37	B	C	A	C
38	C	A	D	B
39	D	B	A	D
40	A	C	A	A
41	A	C	D	B
42	B	C	A	B
43	C	A	B	C
44	A	B	A	C
45	C	A	C	B
46	B	A	A	A
47	B	B	C	A
48	A	D	A	C
49	D	C	B	C
50	B	C	C	A
51	C	B	A	A

Boon
25/11/19

Nidhi
20/11/19

Monika

Answer Key of M.Phil/Ph.D 2019 (Food Technology)				
QUESTION NO.	CODE-A	CODE-B	CODE-C	CODE-D
52	C	B	A	A
53	A	C	B	B
54	B	C	D	C
55	A	B	C	D
56	A	A	A	D
57	B	A	B	A
58	D	C	C	B
59	C	C	D	B
60	C	A	A	A
61	B	B	A	A
62	B	A	B	B
63	C	A	D	C
64	C	C	A	A
65	B	B	A	C
66	A	A	B	B
67	A	C	C	B
68	C	B	C	A
69	C	D	A	D
70	A	A	B	B
71	B	A	A	C
72	C	B	B	C
73	D	D	C	A
74	A	A	A	B
75	B	A	C	A
76	D	B	B	A
77	A	C	B	B
78	D	C	A	D
79	A	A	D	C
80	A	B	B	C
81	A	A	B	D
82	A	A	C	A
83	B	B	C	B
84	C	C	D	A
85	D	D	A	C
86	D	D	D	A
87	A	A	A	C
88	B	B	C	A
89	B	B	B	B
90	A	A	D	C
91	B	A	B	A
92	C	A	B	B
93	C	B	C	D
94	D	D	C	A
95	A	C	B	A
96	D	A	A	B
97	A	B	A	C
98	C	C	C	C
99	B	D	C	A
100	D	A	A	B

20/11/19

20/11/19

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