

13/2015

Maximum : 100 marks

Time : 1 hour and 15 minutes

1. Coast line of India is _____ Km.
(A) 7690 (B) 8129
(C) 590 (D) 6190
2. An amino acid responsible for sweet taste in prawn :
(A) Cystine (B) Glysine
(C) Methionine (D) Valine
3. Indian oil sardine, *Sardinella longiceps* is a plankton feeder, mainly feeds on :
(A) *Fragillaria oceanica* (B) *Hyperia macrocephala*
(C) *Microcystis* (D) Copepods
4. Area of Indian EEZ :
(A) 0.506 MKm² (B) 2200 Km
(C) 2.02 Million Km² (D) 590 Km
5. Odd man out from the following :
(A) Gujarath (B) Orissa
(C) Goa (D) Bihar
6. A passive gear used for fishing :
(A) Trawl net (B) Purse seine net
(C) Gill net (D) Ring net
7. A compound responsible for the characteristic fishy odour and flavour of marine fish :
(A) DHA (B) TMAO
(C) Amino acid (D) PUFA

8. Select a water soluble vitamin from the following :
- (A) Vitamin C (B) Vitamin A
(C) Vitamin E (D) Vitamin D
9. A lean fish :
- (A) Sardine (B) Mackerel
(C) Ribbon fish (D) Anchovy
10. _____ is the phenomenon of stiffening of muscle shortly after death.
- (A) Rigor mortis (B) Autolysis
(C) Auto oxidation (D) Melanosis
11. An anaerobic bacteria causing food poisoning :
- (A) Salmonella typhi (B) Vibrio cholera
(C) Clostridium botulinum (D) Strepto coccus
12. Bacteria which grow at temperature of 0 – 20°C is known as :
- (A) Psychrophiles (B) Mesophiles
(C) Acidophiles (D) Thermophiles
13. Which one of the following is not an icing method?
- (A) Boxing (B) Filling
(C) Shelving (D) Bulking
14. Chlorine level of processing water is _____ ppm.
- (A) 50 (B) 2
(C) 20 (D) 5
15. Solid Carbon dioxide is :
- (A) Flake ice (B) Tube ice
(C) Dry ice (D) Block ice
16. _____ °C is the temperature of cold storage.
- (A) - 40 (B) - 28
(C) - 15 (D) - 20

17. Head Quarters of CMFRI :
- (A) Mumbai (B) Chennai
(C) Goa (D) Cochin
18. Odd man out from the following :
- (A) Sardine (B) Mackerel
(C) Shark (D) Tuna
19. A refrigerant used in an ice plant :
- (A) Ammonia (B) Nitrogen
(C) Carbon dioxide (D) Oxygen
20. Select a Crustacean from the following :
- (A) Sardine (B) Crab
(C) Squid (D) Perna spp.
21. Freezer suitable for block freezing :
- (A) Plate freezer (B) Fluidised bed freezer
(C) Tunnel freezer (D) Cryogenic freezer
22. Select a modern fish preservation method from the following :
- (A) Drying (B) Pickling
(C) Freezing (D) Salting
23. A type of cold storage :
- (A) Tunnel (B) Unit cooler
(C) Air blast (D) Deep cooler
24. In which of the following packaging method 3 ply laminated material is used :
- (A) Retortable pouch (B) Vacuum packaging
(C) MAP (D) CAP
25. Select the process of removal of water from fish without altering its cell structure :
- (A) Evaporation (B) Glazing
(C) Melting (D) Freeze - drying

26. Find the odd man out :
- (A) Cesium - 137 (B) Cobalt - 60
(C) Strontium - 90 (D) Carbon - 12
27. Fungal attack in marinated products are prevented by using :
- (A) BHA (B) Propionic acid
(C) Potassium sorbate (D) MSG
28. The type of preservation which is most suitable during rainy season :
- (A) Dry curing (B) Mona curing
(C) Wet curing (D) Smoke curing
29. Irradiation dose used for radication :
- (A) Below 0.5 Mega rad (B) 0.5 - 1 Mega rad
(C) Above 1 Mega rad (D) None of the above
30. Causative organism of DUN spoilage :
- (A) Serratia (B) Sporendonema
(C) Micrococcus (D) Sarcina
31. Rust in salted product can be prevented by using :
- (A) MSG (B) Sorbic acid
(C) BHA (D) Sodium Benzoate
32. A carcinogenic substance present in the smoke :
- (A) 3, 4 Benzopyrene (B) N acetyl glucosamine
(C) Carbon mono oxide (D) Catechol
33. Principle used in freeze-drying :
- (A) Evaporation (B) Osmosis
(C) Cooling (D) Sublimation
34. A can in which the ends permanently and firmly distended :
- (A) Springer (B) Flipper
(C) Soft swell (D) Hard swell

35. In canning process the step immediately after Exhausting :
- (A) Exhausting (B) Cooling
(C) Seaming (D) Filling
36. A smoked product :
- (A) Masmin (B) Beche-demer
(C) Ambergris (D) Isin glass
37. A product prepared from air bladder of cat fish :
- (A) Squalene (B) Surgical sutures
(C) Fish meal (D) Isin glass
38. T.P.C limit for frozen fish based on BIS specification :
- (A) 5 – 7 lakh (B) Below 5 lakh
(C) 7 – 10 lakh (D) Above 10 lakh
39. Glass like crystals found in certain canned products :
- (A) Struvite (B) Rust
(C) Salt (D) Dun
40. Which one of the following is not connected with Freeze-dried product?
- (A) No shrinkage (B) Rehydration more
(C) Long shelf life (D) Cost of production less
41. Blue discoloration in canned product is connected with :
- (A) Shark (B) Sardine
(C) Crab (D) Seer fish
42. Struvite formation in canned product can be prevented by adding :
- (A) BHA (B) Sorbic acid
(C) EDTA (D) Acetic acid
43. A processing method in which complete destruction of vegetative bacteria is achieved :
- (A) Freezing (B) Canning
(C) Marinading (D) Salting

44. Ideal salt curing method for lean fishes :
- (A) Dry curing (B) Wet curing
(C) Mona curing (D) Colombo curing
45. Ideal packing material for fish pickle :
- (A) Polythene bag (B) Plastic bottle
(C) Aluminium can (D) Glass jar
46. Chitosan is prepared from :
- (A) Prawn shell waste (B) Air bladder
(C) Gut (D) Fish scales
47. Shark fin rays are used for the preparation of :
- (A) Ornaments (B) Leather
(C) Soup (D) Manure
48. Scientific name of Black tiger shrimp :
- (A) *Metapenaeus affinis* (B) *Penaeus monodon*
(C) *Penaeus indicus* (D) *Metapenaeus monoceros*
49. Fish protein concentrate is a colourless and tasteless stable product intended for :
- (A) Fish feed (B) Manure
(C) Human consumption (D) Poultry feed
50. An Indian quality standard :
- (A) E.U. Standards (B) BIS
(C) ISO - 9000 (D) US FDA
51. Head Quarters of International organization for standardisation :
- (A) Geneva (B) New York
(C) New Delhi (D) Tokyo

52. Which one of the following is a total quality management based on consumer safety through systematic approach to the identification, assessment and control of hazard?
- (A) IPQC (B) MIPQC
(C) HACCP (D) CAC
53. An instrument used for Dry sterilization :
- (A) Hot air oven (B) Incubator
(C) Auto clave (D) Hydrometer
54. Which of the following causes ozone layer depletion :
- (A) Ammonia (B) Smoke
(C) Freon (D) Mercury
55. A thin layer of ice coating over the fish before or after freezing to prevent dehydration during storage :
- (A) Chilling (B) Cooling
(C) Icing (D) Glazing
56. Freezing temperature for fish products :
- (A) -20°C (B) -40°C
(C) -10°C (D) -30°C
57. Function of sarcoplasmic protein :
- (A) Muscle movement (B) Connective tissue
(C) Respiration (D) Metabolism
58. Pearl essence is made from :
- (A) Fish scales (B) Fish gills
(C) Pearl oyster (D) Fish gut
59. The source of agar :
- (A) Sea anemone (B) Sea lily
(C) Sea cucumber (D) Sea weed

60. The name, Nicholas Appert is connected with :
- (A) Freezing (B) Smoking
(C) Canning (D) Irradiation
61. Ambergris is connected with :
- (A) Shark (B) Sea weed
(C) Sperm whale (D) Skip jack
62. In canning process removal of air from the can takes place during :
- (A) Blanching (B) Cooling
(C) Seaming (D) Exhausting
63. A product from the shark liver oil which reduces cholesterol level :
- (A) Chitin (B) Squalene
(C) DHA (D) PUFA
64. Fish meal production, ideal for fatty fishes :
- (A) Dry rendering (B) Wet rendering
(C) Viobian method (D) Canadian Process
65. Bacteria which grow best in the presence of salt :
- (A) Halophilic (B) Halophobic
(C) Mesophilic (D) Acidophilic
66. Which of the statement below is not true with Vibrio Cholera?
- (A) Spore forming (B) Aerobic
(C) Gram negative (D) Comma shaped
67. Fish which contain highest water content :
- (A) Sardine (B) Ribbon fish
(C) Bombay duck (D) Shark
68. Proteins are complex organic nitrogenous substances made by sub units called :
- (A) Fatty acids (B) Minerals
(C) Amino acids (D) Carbohydrates

69. Which of the following is considered as an index of freshness of fish?
- (A) TMAO (B) Hypoxanthine
(C) ATP (D) Auto oxidation
70. The ratio of ice to fish is roughly :
- (A) 1 : 2 (B) 2 : 1
(C) 1 : 3 (D) 1 : 1
71. Bacteria are measured in microns. One microne is equal to :
- (A) $1/100^{\text{th}}$ of millimeter (B) $1/1000^{\text{th}}$ of centemeter
(C) $1/100^{\text{th}}$ of centemeter (D) $1/1000^{\text{th}}$ of millimeter
72. Chemical name of struvite :
- (A) Magnesium Ammonium Phosphate Hexahydrate
(B) Magnesium Ammonium sulphate
(C) Magnesium Ammonium sulphate Hexahydrate
(D) Magnesium Ammonium Phosphate
73. Father of Micro biology :
- (A) Louis Pasture (B) A.V. Leeuwenhoek
(C) Alexander Fleming (D) Charles Darwin
74. Dried Sea cucumber :
- (A) Isin glass (B) Fish wafers
(C) Beche-demer (D) Perfume
75. The cheapest fish preservation method :
- (A) Freezing (B) Sun drying
(C) Canning (D) Irradiation
76. Best suitable container for canned foods :
- (A) Aluminium can (B) Tin can
(C) Glass jar (D) Retort pouch