**FISHERIES**

1. In fish culture, Costiasis is caused by

|  |  |
| --- | --- |
| (A) | Mustigophoresis |
| (B) | Mustigophore |
| (C) | Mastigophore |
| (D) | Mastigophorii |

2. Herbivores have good capacity to digest CHO than

|  |  |
| --- | --- |
| (A) | Protein and fat |
| (B) | Vitamins  |
| (C) | Minerals |
| (D) | None of the above |

3. Black gill disease in shrimp is caused due to

|  |  |
| --- | --- |
| (A) | High organic content alone  |
| (B) | High organic content, debris, ammonia and H2S  |
| (C) | Debris alone  |
| (D) | H2S alone  |

4. Example for a Cytozoic parasite is

|  |  |
| --- | --- |
| (A) | Diphyllobothrium |
| (B) | Microsporadia |
| (C) | Nematodes |
| (D) | Cestodes |

5. Traditional coastal aquaculture systems in India are

|  |  |
| --- | --- |
| (A) | Bheries (Kerala) **+** Pokkali (WB) **+** Khazan (Goa) **+** Khar (Karnataka) **+** Ghery (Odisha) |
| (B) | Bheries (Goa) **+** Pokkali (Kerala) **+** Khazan (WB) **+** Khar (Karnataka) **+** Ghery (Odisha) |
| (C) | Bheries (WB) **+** Pokkali (Kerala) **+** Khazan (Goa) **+** Khar (Karnataka) **+** Ghery (Odisha) |
| (D) | Bheries (WB) **+** Pokkali (Kerala) **+** Khazan (Odisha) **+** Khar (Karnataka) **+** Ghery (Goa) |

6. Control of Water pH within the optimum of 7.5 - 8.5, requires limiting diurnal pH fluctuation to

|  |  |
| --- | --- |
| (A) | < 1.5  |
| (B) | < 0.5  |
| (C) | < 2  |
| (D) | < 0.01 |

7. Loamy soil refers to

|  |  |
| --- | --- |
| (A) | Clay **+** Silt **+** Sand **+** Gravel |
| (B) | Clay **+** Silt |
| (C) | Clay **+** Silt **+** Sand **+** Gravel **+** Pebbles |
| (D) | Clay **+** Silt **+** Sand |

8. FCE is the reciprocal of

|  |  |
| --- | --- |
| (A) | Protein Efficiency Ratio and expressed in % |
| (B) | Feed Conversion Efficiency and expressed in % |
| (C) | Specific Growth Rate and expressed in % |
| (D) | Feed Conversion Ratio and not expressed in % |

9. IMTA means

|  |  |
| --- | --- |
| (A) | Internal Multi-Trophic Aquaculture  |
| (B) | Integrated Multi-Trophic Agriculture  |
| (C) | Integrated Multi-Trophic Aquaculture   |
| (D) | Impressed Multi-Trophic Aquaculture  |

10. Rectangular pond should be oriented north to south in order to maximize the

|  |  |
| --- | --- |
| (A) | Sunlight hitting pond |
| (B) | Moon hitting pond  |
| (C) | Bottom hitting pond    |
| (D) | None of the above  |

11. The test to know whether the soil has clay or not is called as

|  |  |
| --- | --- |
| (A) | Institute Test   |
| (B) | Institution Test  |
| (C) | Insitu Test    |
| (D) | Integrated Soil Test  |

12. Undersized lobsters are

|  |  |
| --- | --- |
| (A) | > 100 g   |
| (B) | 100 – 200 g  |
| (C) | < 100 g    |
| (D) | > 200 g  |

13. Longer sides should be oriented parallel to prevailing wind direction so that the pond aeration can be increased in

|  |  |
| --- | --- |
| (A) | Circular pond   |
| (B) | Triangle pond  |
| (C) | Square ponds    |
| (D) | Rectangular ponds  |

14. “Overall Protecting Structure” of a pond is

|  |  |
| --- | --- |
| (A) | Secondary dike |
| (B) | Main dike  |
| (C) | Tertiary dike    |
| (D) | Partition dike |

15. Live feeds are considered as

|  |  |
| --- | --- |
| (A) | Living Capsules of Nutrition |
| (B) | Non Living Capsules of Nutrition  |
| (C) | Aquatic feed    |
| (D) | Non aquatic feed |

16. Microalgae, grown typically, contain more protein in

|  |  |
| --- | --- |
| (A) | Decline phase |
| (B) | Lack phase |
| (C) | Lag phase    |
| (D) | Log phase |

17. Soil Texture consists of

|  |  |
| --- | --- |
| (A) | Silt **+** Sand **+** Cobble |
| (B) | Clay **+** Silt **+** Sand |
| (C) | Soil **+** Sand **+** Seepage    |
| (D) | Clay **+** Sand **+** Grain |

18. Identified Brackishwater area in India is

|  |  |
| --- | --- |
| (A) | 0.24 million ha |
| (B) | 112.4 million ha |
| (C) | 11.24 million ha |
| (D) | 1.24 million ha |

19. Three major causes of fish diseases are

|  |  |
| --- | --- |
| (A) | Parasitic, non parasitic and nutritional factors |
| (B) | Stress, poor intake and poor soil  |
| (C) | Poor water quality, environmental pathogens and low resistance of fish stock |
| (D) | None of the above |

20. Better production and lower risk of disease outbreaks is noticed in

|  |  |
| --- | --- |
| (A) | Foggy water |
| (B) | Yellow water |
| (C) | Green water  |
| (D) | Black water |

21. In most cases, the haemolymph of healthy shrimp will coagulate as little as in

|  |  |
| --- | --- |
| (A) | 10 seconds |
| (B) | 60 seconds |
| (C) | 1 minute  |
| (D) | 110 seconds |

22. Milk fish prefer

|  |  |
| --- | --- |
| (A) | Geosmin |
| (B) | Lumet  |
| (C) | Lab lab  |
| (D) | None of the above |

23. IPN stands for

|  |  |
| --- | --- |
| (A) | Internal Pond Necrosis |
| (B) | Infections Pancreatic Necrosis  |
| (C) | Infectious Pyramid Necrosis  |
| (D) | Infectious Pond Necrosis  |

24. The three steps involved in *Artemia* hatching are

|  |  |
| --- | --- |
| (A) | Hydration **+** Decapsulation **+** Hatching   |
| (B) | Decapsulation **+** Hatching **+** Hydration  |
| (C) | Decapsulation **+** Hydration **+** Hatching |
| (D) | Hydration **+** Hatching **+** Decapsulation |

25. Large scale ‘*vannamei*’ shrimp farming was introduced in

|  |  |
| --- | --- |
| (A) | 2011  |
| (B) | 1985  |
| (C) | 2009 |
| (D) | 1995 |

26. The scientific name of ‘pearl spot’ is

|  |  |
| --- | --- |
| (A) | *Lates calcarifer*  |
| (B) | *Etroplus suratensis*  |
| (C) | *Mugil cephalus*  |
| (D) | None of the above |

27. Brachionus is a

|  |  |
| --- | --- |
| (A) | Rotifer  |
| (B) | Artemia  |
| (C) | Moina  |
| (D) | Daphnia  |

28. The specific gravity of fish is

|  |  |
| --- | --- |
| (A) | 1.02 - 1.06 |
| (B) | 1.03 - 1.04 |
| (C) | 1.04 - 1.05 |
| (D) | 1.05 - 1.06 |

29. Fresh water ecology is also called as

|  |  |
| --- | --- |
| (A) | Hydrology |
| (B) | Limnology |
| (C) | Meteorology |
| (D) | None of the above |

30. Area which remains underwater at high tide and remains terrestrial at low tide

|  |  |
| --- | --- |
| (A) | Wetland |
| (B) | Intertidal zone |
| (C) | Beach |
| (D) | None of the above |

31. Apex body in agriculture and related allied fields including research and education is

|  |  |
| --- | --- |
| (A) | ICAR |
| (B) | IARI |
| (C) | ICMR |
| (D) | IASRI |

32. New entrant in Indian mariculture sector is

|  |  |
| --- | --- |
| (A) | Marine Pen Culture |
| (B) | Marine Cage Culture |
| (C) | Brackishwater Cage Culture |
| (D) | Freshwater Cage Culture |

33. Phyllosoma is a larval stage of

|  |  |
| --- | --- |
| (A) | Lobsters |
| (B) | Eels  |
| (C) | Mussels |
| (D) | Crabs |

34. Fish popularly known as the Aquatic chicken is

|  |  |
| --- | --- |
| (A) | Zebra fish |
| (B) | Brown trout |
| (C) | Cobia  |
| (D) | Tilapia |

35. In India, the first sea cage was established by CMFRI during 2007 at

|  |  |
| --- | --- |
| (A) | Chennai |
| (B) | Vijayawada |
| (C) | Gujarat |
| (D) | Visakhapatnam |

36. The example for plant derivatives based fish toxicant is

|  |  |
| --- | --- |
| (A) | Mahua Oil Cake |
| (B) | Aldrin |
| (C) | Endrin |
| (D) | Super Phosphate |

37. First RAS was started in

|  |  |
| --- | --- |
| (A) | Korea |
| (B) | China |
| (C) | Japan |
| (D) | USA  |

38. Major ornamental fish exporting center of India is

|  |  |
| --- | --- |
| (A) | Mumbai |
| (B) | Kolkata |
| (C) | Chennai |
| (D) | Paradip |

39. An indigenous species of ornamental fish among the following is

|  |  |
| --- | --- |
| (A) | *Puntius denisonii* |
| (B) | Astronotus ocellatus |
| (C) | Carassius auratus |
| (D) | Helostoma temmincki |

40. Which among the following is known as Amazon sword plant?

|  |  |
| --- | --- |
| (A) | Echinodorus sp. |
| (B) | Cabomba sp. |
| (C) | Eichhornia crassipes |
| (D) | Salvinia |

41. Paramoecium can be cultured in a medium containing

|  |  |
| --- | --- |
| (A) | Banana peelings |
| (B) | Cabbage |
| (C) | Potato |
| (D) | All the above |

42. Moisture content of dry feed will be in the range of

|  |  |
| --- | --- |
| (A) | 15-35 |
| (B) | > 35 |
| (C) | 8-12 |
| (D) | < 8 |

43. During transportation of ornamental fishes, the ratio between oxygen and water in the transport polythene bag will be

|  |  |
| --- | --- |
| (A) | 1:3 |
| (B) | 3:1 |
| (C) | 1:4 |
| (D) | 4:1 |

44. Conditioning of brood fish can be achieved by a varied diet with increased content of

|  |  |
| --- | --- |
| (A) | Carbohydrate |
| (B) | Protein |
| (C) | Fat |
| (D) | Minerals |

45. Hydraulic radius of a canal is calculated by

|  |  |
| --- | --- |
| (A) | Cross section area of a dike / wetted perimeter |
| (B) | Cross section area of a dike / dry perimeter |
| (C) | Cross section area of a channel / wetted perimeter |
| (D) | Cross section area of a bund / wetted perimeter |

46. A marginal aquatic plant among the following is

|  |  |
| --- | --- |
| (A) | Echinodorus |
| (B) | Najas |
| (C) | Potomogeton |
| (D) | Utricularia |

47. Cow dung is the medium for culturing

|  |  |
| --- | --- |
| (A) | Mosquito larvae |
| (B) | Rotifer |
| (C) | Infusoria |
| (D) | None of the above |

48. Angel fish is a

|  |  |
| --- | --- |
| (A) | Bubble nest builder |
| (B) | Egg scatterer |
| (C) | Viviparous fish |
| (D) | Egg depositor |

49. Which among the following is a cladoceran?

|  |  |
| --- | --- |
| (A) | *Brachionus* |
| (B) | *Chlorella* |
| (C) | *Daphnia* |
| (D) | *Isochrysis* |

50. The process involved in improving nutritional status of live food organisms is

|  |  |
| --- | --- |
| (A) | Bleaching |
| (B) | Hydration |
| (C) | Chorion |
| (D) | Bio-encapsulation |

51. The addition of which one of the following further buffers the water against pH changes in algal tanks?

|  |  |
| --- | --- |
| (A) | O2 |
| (B) | HCO2 |
| (C) | O3 |
| (D) | CO2 |

52. Natural collections of algae kept in culture vessels in laboratory is called as

|  |  |
| --- | --- |
| (A) | Maintenance culture |
| (B) | Enrichment culture |
| (C) | Unialgal culture |
| (D) | Axenic culture |

53. CAA is responsible for granting permission to

|  |  |
| --- | --- |
| (A) | Import shrimp broodstock and culture |
| (B) | Culture Alone |
| (C) | Import shrimp broodstock alone |
| (D) | Certification of products |

54. Zooplankton samples can be preserved in

|  |  |
| --- | --- |
| (A) | Glucose |
| (B) | HCl |
| (C) | Formalin |
| (D) | Spirit |

55. Fertilizing the fish pond increases the abundance of

|  |  |
| --- | --- |
| (A) | Artificial fish food |
| (B) | Complete fish food |
| (C) | Supplementary fish food |
| (D) | Natural fish food |

56. Biofloc Technology (BFT) involves

|  |  |
| --- | --- |
| (A) | Autotrophic Bacteria **+** Nitrogen |
| (B) | Bacteria **+** Nitrogen **+** Carbon **+** Phosphorus |
| (C) | Heterotrophic Bacteria **+** Nitrogen |
| (D) | Heterotrophic Bacteria **+** Nitrogen **+** Carbon |

57. Diatoms come under

|  |  |
| --- | --- |
| (A) | Cyanophyceae |
| (B) | Bacillariophyceae |
| (C) | Chlorophyceae |
| (D) | Protozoa |

58. Example for annelid is

|  |  |
| --- | --- |
| (A) | Mosquito worm |
| (B) | Green worm |
| (C) | Tubifex |
| (D) | Yellow Worm |

59. Artemia is a

|  |  |
| --- | --- |
| (A) | Selective filter feeder |
| (B) | Non selective filter feeder |
| (C) | Partially selective filter feeder |
| (D) | Semi selective filter feeder |

60. The "stable tea" rearing system is a culture medium and is made up of a mixture of

|  |  |
| --- | --- |
| (A) | Oil, manure and water |
| (B) | Manure and water |
| (C) | Oil and manure |
| (D) | CO2 **+**C **+** O2 |

61. Three tier modular system for mud crab was developed by

|  |  |
| --- | --- |
| (A) | CIFA |
| (B) | CMFRI |
| (C) | CIBA |
| (D) | CIFRI |

62. Synthesis of organic carbon through the process of photosynthesis is called as

|  |  |
| --- | --- |
| (A) | Primary Production |
| (B) | Tertiary Production |
| (C) | Secondary Production |
| (D) | Swarming |

63. Fishes that feed on crustaceans are called as

|  |  |
| --- | --- |
| (A) | Insectivores |
| (B) | Piscivorous |
| (C) | Carcinophagous |
| (D) | Malacophagous |

64. Base of the food chain is occupied by

|  |  |
| --- | --- |
| (A) | Zooplankton |
| (B) | Bloom |
| (C) | Benthos |
| (D) | Phytoplankton |

65. Area of land within a distance of 2 km HT of sea, river, creeks and back water is

|  |  |
| --- | --- |
| (A) | Mariculture Area |
| (B) | Coastal Area |
| (C) | Open Mariculture Area |
| (D) | Off Shore Area |

66. The RAS involves

|  |  |
| --- | --- |
| (A) | Autotrophic Bacteria **+** Nitrogen |
| (B) | Heterotrophic Bacteria **+** Nitrogen **+** Carbon |
| (C) | Heterotrophic Bacteria **+** Nitrogen |
| (D) | Bacteria **+** Nitrogen **+** Carbon **+** Phosphorus |

67. Bloom of *Fragiilaria oceanica* is an indication of abundance of

|  |  |
| --- | --- |
| (A) | Oil sardine |
| (B) | Anchovies |
| (C) | Catfishes |
| (D) | Indian major carps |

68. The adhesive eggs are produced by

|  |  |
| --- | --- |
| (A) | Catla |
| (B) | Silver carp |
| (C) | Grass carp |
| (D) | Common carp |

69. The scientific name of Silver carp is

|  |  |
| --- | --- |
| (A) | *Aristichthys nobilis* |
| (B) | *Ctenopharyngodon idellus* |
| (C) | *Hypophthalmichthys molitrix* |
| (D) | *Cyprinus carpio* |

70. GIFT Tilapia is

|  |  |
| --- | --- |
| (A) | Genetically modified fish |
| (B) | Transgenic fish |
| (C) | Genetically improved fish |
| (D) | None of the above |

71. Which of the following is not an air breathing fish

|  |  |
| --- | --- |
| (A) | Magur |
| (B) | Singhi |
| (C) | Murrel |
| (D) | Pangasius |

72. The optimal temperature for cold water fisheries is

|  |  |
| --- | --- |
| (A) | 0 – 20 °C |
| (B) | 10 – 20 °C |
| (C) | 10 – 40 °C |
| (D) | 0 – 10 °C |

73. Eutrophication of lakes is an indication of

|  |  |
| --- | --- |
| (A) | Excessive nutrient enrichment |
| (B) | Optimal level of nutrients |
| (C) | Accumulation of sediments |
| (D) | None of these |

74. Optimal range of pH for fish culture is

|  |  |
| --- | --- |
| (A) | 6 – 10 |
| (B) | 5.5 – 9.0 |
| (C) | 5 – 8 |
| (D) | 6.5 – 8.5 |

75. The most important river system from fisheries point of view is

|  |  |
| --- | --- |
| (A) | Brahmaputra |
| (B) | Indus |
| (C) | Ganga |
| (D) | Mahanadi |

76. Induced breeding technology for Sea bass was developed by

|  |  |
| --- | --- |
| (A) | CIBA |
| (B) | CIFA |
| (C) | CMFRI |
| (D) | CIFE |

77. The estuarine water resources of India is estimated at

|  |  |
| --- | --- |
| (A) | 2.11 million ha |
| (B) | 1.88 million ha |
| (C) | 1.44 million ha |
| (D) | 1.20 million ha |

78. Which one of the following is an example for a fish that shows anadromous migration?

|  |  |
| --- | --- |
| (A) | Hilsa |
| (B) | Eel |
| (C) | Anabas |
| (D) | Bombay duck |

79. The largest estuarine system in India is

|  |  |
| --- | --- |
| (A) | Godavari |
| (B) | Mahanadi |
| (C) | Narmada |
| (D) | Hooghly Matlah |

80. Both lotic and lentic characters are seen in

|  |  |
| --- | --- |
| (A) | Rivers |
| (B) | Tanks |
| (C) | Reservoirs |
| (D) | Lakes |

81. The indigenous cold water fish group is

|  |  |
| --- | --- |
| (A) | Salmons |
| (B) | Mahaseers |
| (C) | Trouts |
| (D) | Tenches |

82. The first successful induced breeding of carps was achieved by

|  |  |
| --- | --- |
| (A) | Dr. Alikunhi and Dr. Chaudhury |
| (B) | Dr. Sundarraj |
| (C) | Dr. Khan and his group |
| (D) | None of the above |

83. *Ipomoea* is a

|  |  |
| --- | --- |
| (A) | Floating weed |
| (B) | Marginal plant |
| (C) | Emergent plant |
| (D) | Submerged plant |

84. The phase of rearing spawn to fry stage is called as

|  |  |
| --- | --- |
| (A) | Fingerling phase |
| (B) | Nursery phase |
| (C) | Rearing phase |
| (D) | Grow out phase |

85. Largest Freshwater lake in the world by surface area is

|  |  |
| --- | --- |
| (A) | Lake Superior |
| (B) | Lake Victoria |
| (C) | Vembanad lake |
| (D) | Chilka lake |

86. The organ that helps in maintaining buoyancy in fishes

|  |  |
| --- | --- |
| (A) | Pelvic fins |
| (B) | Dorsal fins |
| (C) | Swim bladder |
| (D) | Caudal fin |

87. *Calanus* is a

|  |  |
| --- | --- |
| (A) | Fish Parasite |
| (B) | Fungus |
| (C) | Zooplankton |
| (D) | Phytoplankton |

88. The Indian Environment Protection Act (EPA) was enacted in

|  |  |
| --- | --- |
| (A) | 1990 |
| (B) | 1986 |
| (C) | 1985 |
| (D) | 2002 |

89. Fish oils are rich in

|  |  |
| --- | --- |
| (A) | Poly unsaturated fatty acids |
| (B) | Palmitic |
| (C) | Oleic |
| (D) | Squalene |

90. A seaweed extract from Red sea weed is

|  |  |
| --- | --- |
| (A) | Gelatin |
| (B) | Alginate |
| (C) | Pectin |
| (D) | Agar |

91. Solar fish drier has been developed by

|  |  |
| --- | --- |
| (A) | CIFT |
| (B) | CFTRI |
| (C) | CIFA |
| (D) | CIFNET |

92. IQF means

|  |  |
| --- | --- |
| (A) | Internally fully frozen |
| (B) | Individual quick freezing |
| (C) | Improved quality fish |
| (D) | Innovative quality freezing |

93. The first Krishi Vigyan Kendra was established in the year

|  |  |
| --- | --- |
| (A) | 1979 |
| (B) | 1985 |
| (C) | 1947 |
| (D) | 1974 |

94. The puffer fish poisoning is due to

|  |  |
| --- | --- |
| (A) | Saxitoxin |
| (B) | Tetradotoxin |
| (C) | Ciguatoxin |
| (D) | Yessotoxin |

95. The code of conduct for Responsible Fisheries was adopted by FAO in the year

|  |  |
| --- | --- |
| (A) | 1990 |
| (B) | 1998 |
| (C) | 1995 |
| (D) | 1996 |

96. The Coastal Aquaculture Authority of India is/was established under

|  |  |
| --- | --- |
| (A) | Act of Parliament |
| (B) | State legislatures |
| (C) | ICAR regulation |
| (D) | None of the above |

97. 17 Alpha-Methyltestosterone is a/an

|  |  |
| --- | --- |
| (A) | Inducting agent |
| (B) | Estrogen |
| (C) | Cryopreservative |
| (D) | Androgen |

98. Soap-oil emulsion is used in fish nursery rearing to eradicate

|  |  |
| --- | --- |
| (A) | Weed fishes |
| (B) | Aquatic weeds |
| (C) | Predatory fishes |
| (D) | Aquatic insects |

99. Temperature conditions required for sterilizing microbial media by autoclave

|  |  |
| --- | --- |
| (A) | Less than 121°C for 10 minutes |
| (B) | 100 °C for 10 minutes |
| (C) | 300 °C for 10 minutes |
| (D) | 121 °C for 15 minutes |

100. Red tide in marine waters is mainly caused by

|  |  |
| --- | --- |
| (A) | Diatoms |
| (B) | Dinoflagellates |
| (C) | Seaweeds |
| (D) | Sewage |

101. Which of the following is called as a Brook trout?

|  |  |
| --- | --- |
| (A) | *Barilius bola* |
| (B) | *Barilius bendelisis* |
| (C) | *Salvelinus fontinalis* |
| (D) | *Barilius vagra* |

102. Epizootic Ulcerative Syndrome (EUS) disease is also known as

|  |  |
| --- | --- |
| (A) | Bacterial Disease |
| (B) | White Spot Disease (WSD) |
| (C) | Air Bubble Disease |
| (D) | Mycotic Granulomatosis (MG) |

103. Rigor Mortis in fish is characterized by

|  |  |
| --- | --- |
| (A) | Shrinkage of fish fillet |
| (B) | Shortening, drip loss and tougher texture |
| (C) | Drip loss |
| (D) | All of the above |

104. Which of the following is not a diatom?

|  |  |
| --- | --- |
| (A) | *Chaetoceros* |
| (B) | *Ditylum* |
| (C) | *Dinocerous* |
| (D) | *Biddulphia* |

105. The non-point source pollution is by

|  |  |
| --- | --- |
| (A) | Domestic sewage |
| (B) | Agricultural run off |
| (C) | Industrial effluents |
| (D) | Cargo ship leakage |

106. The scientist who led the first Indian expedition to Antarctica

|  |  |
| --- | --- |
| (A) | Dr. E.G. Silas |
| (B) | Dr. S.A.H. Abidi |
| (C) | Dr. S.Z. Qasim |
| (D) | Dr. N.R. Menon |

107. Theory of continental drift was proposed by

|  |  |
| --- | --- |
| (A) |  Alfred Wegener |
| (B) | Alfred C. Wallace |
| (C) | Edward Forbes |
| (D) | Matthew Maury |

108. The scientific name of Indian dog shark is

|  |  |
| --- | --- |
| (A) | *Sphyrna zygaena* |
| (B) | *Rhincobatus djeddensis* |
| (C) | *Himanthura bleekeri* |
| (D) | *Scoliodon laticaudus* |

109. Inbreeding in fish can be reduced by

|  |  |
| --- | --- |
| (A) | Giving balanced feed |
| (B) | Phased manuring |
| (C) | Providing good water quality |
| (D) | Increasing effective population size |

110. Largest freshwater Man-Made Lake in India

|  |  |
| --- | --- |
| (A) | Sulekere Lake, Karnataka |
| (B) | Govind Vallabh Pant Sagar(Rihand Dam) |
| (C) | Chilka Lake, Orissa |
| (D) | Sukhna Lake, Chandigarh |

111. The larval stage of freshwater mussel is

|  |  |
| --- | --- |
| (A) | Plerulus |
| (B) | Pediveliger |
| (C) | Glochidium |
| (D) | Brachionus |

112. Which of the following fish diseases is caused by the bacteria, *Aeromonas salmonicida*?

|  |  |
| --- | --- |
| (A) | Goldfish ulcer disease |
| (B) | Furunculosis of salmonids |
| (C) | Carp erythrodermatitis |
| (D) | All of the above |

113. Which one of the following is a non-essential amino acid?

|  |  |
| --- | --- |
| (A) | Histidine |
| (B) | Lysine |
| (C) | Threonine |
| (D) | Alanine |

114. The number of sets of chromosomes in a triploid fish is

|  |  |
| --- | --- |
| (A) | 2n |
| (B) | 3n |
| (C) | 1n |
| (D) | 4n |

115. Government of India legislated the Biodiversity Act in the year

|  |  |
| --- | --- |
| (A) | 2010 |
| (B) | 2008 |
| (C) | 2005 |
| (D) | 2002 |

116. Increase in cell number is referred as

|  |  |
| --- | --- |
| (A) | Hyperplasia |
| (B) | Hypertrophy |
| (C) | Metaplasia |
| (D) | Neoplasia |

117. Cryopreservation of sperm is done at

|  |  |
| --- | --- |
| (A) | – 80 °C |
| (B) | – 196 °C |
| (C) | – 100 °C |
| (D) | – 180 °C |

118. A Horizontal slice of a fish is referred as

|  |  |
| --- | --- |
| (A) | Fillets |
| (B) | Portin |
| (C) | Steak |
| (D) | Circle |

119. The last stage of larva during the development of rock lobsters is

|  |  |
| --- | --- |
| (A) | Puerulus |
| (B) | Pediveliger |
| (C) | Glochidium |
| (D) | Brachionus |

120. Hypoxanthine in fish is formed from

|  |  |
| --- | --- |
| (A) | TMA-O |
| (B) | Urea |
| (C) | ATP |
| (D) | Free amino acid |

121. Indicator micro-organism for fecal contamination is

|  |  |
| --- | --- |
| (A) | *Salmonella* |
| (B) | *E. coli* |
| (C) | *Shigella* |
| (D) | *Staphylococcus* |

122. The freezing and boiling temperatures of water respectively in °C are

|  |  |
| --- | --- |
| (A) | 32 and 212 |
| (B) | 0 and 100 |
| (C) | 4 and 100 |
| (D) | –1 and 100 |

123. The range of total alkalinity ideal for fish growth is

|  |  |
| --- | --- |
| (A) | 0-75 ppm |
| (B) | 50-75 ppm |
| (C) | 75-300 ppm |
| (D) | More than 300 ppm |

124. Inbreeding leads to inbreeding depression that results in

|  |  |
| --- | --- |
| (A) | Increased heterozygocity. |
| (B) | Decrease in growth and other traits. |
| (C) | Increase in population. |
| (D) | Improved aquaculture performance. |

125. Induced breeding of bivalves is done by

|  |  |
| --- | --- |
| (A) | Photoperiod regulation |
| (B) | Artificial insemination |
| (C) | Thermal stimulation |
| (D) | Electrocauterisation |

126. In fishes, testosterone is produced by

|  |  |
| --- | --- |
| (A) | Androgenic gland |
| (B) | Vas deferens |
| (C) | Spermatheca |
| (D) | Leydig cells |

127. The copulatory organ in cephalopods is known as

|  |  |
| --- | --- |
| (A) | Hectocotylus |
| (B) | Gonopodium |
| (C) | Petasma |
| (D) | Needham’s sac |

128. Number of larval stages in *Macrobrachium rosenbergii* is

|  |  |
| --- | --- |
| (A) | 4 |
| (B) | 2 |
| (C) | 11 |
| (D) | 15 |

129. The anesthetic seen in clove oil and used in transportation of live fishes is

|  |  |
| --- | --- |
| (A) | Benzocaine |
| (B) | Phenoxy ethanol |
| (C) | Euginol |
| (D) | Quinaldine |

130. The disease caused by deficiency of Ascorbic acid in fishes is

|  |  |
| --- | --- |
| (A) | Broken back disease |
| (B) | Necrosis |
| (C) | Septicaemia |
| (D) | Gill rot |

131. *Pinctada margaritifera* produces

|  |  |
| --- | --- |
| (A) | Agar Agar |
| (B) | Black pearls |
| (C) | Sodium alginate |
| (D) | Squalene |

132. Bacterial spoilage in canned food is caused by

|  |  |
| --- | --- |
| (A) | *Listeria* |
| (B) | *Staphylococcus* |
| (C) | *Clostridium* |
| (D) | *Shigella* |

133. Ambergris is obtained from

|  |  |
| --- | --- |
| (A) | Shark |
| (B) | Sperm whale |
| (C) | Blue whale |
| (D) | Dolphin |

134. Chelating agent used in shrimp hatchery is

|  |  |
| --- | --- |
| (A) | Zeolite |
| (B) | EDTA |
| (C) | Oxytetracyclin |
| (D) | Sodium thiosuphate |

135. Cotton wool disease in fish is caused by

|  |  |
| --- | --- |
| (A) | Penicillium sp. |
| (B) | Branchiomyces sp. |
| (C) | Saprolegnia sp. |
| (D) | Bacteria  |

136. Acidosis is caused due to

|  |  |
| --- | --- |
| (A) | Decrease in sulfate content |
| (B) | Increase in chlorine content |
| (C) | Decrease of calcium salts |
| (D) | Increased iron content in water |

137. Ingredients added to enhance coloration of fish feed is

|  |  |
| --- | --- |
| (A) | Carotenoids |
| (B) | Gelatin |
| (C) | Cellulose |
| (D) | CMC |

138. The larva of Lamprey is

|  |  |
| --- | --- |
| (A) | Tadpole |
| (B) | Tonaria |
| (C) | Trochophore |
| (D) | Ammocoete |

139. Elasmobranchs remove sodium chloride through

|  |  |
| --- | --- |
| (A) | Rectal glands |
| (B) | Gills |
| (C) | Kidney |
| (D) | Liver |

140. Placoid scales are present in

|  |  |
| --- | --- |
| (A) | Hag Fishes |
| (B) | Lamprey |
| (C) | Salmons |
| (D) | Sharks |

141. Puffer fish belong to the family

|  |  |
| --- | --- |
| (A) | Mastacembelidae |
| (B) | Tetradontidae |
| (C) | Anguillidae |
| (D) | Muraenesocidae |

142. The major osmoregulatory organ in fishes is

|  |  |
| --- | --- |
| (A) | Stomach |
| (B) | Liver |
| (C) | Kidney |
| (D) | Gills |

143. Lobsters are caught using

|  |  |
| --- | --- |
| (A) | Shore seines |
| (B) | Purse seines |
| (C) | Trawls  |
| (D) | Traps |

144. The most common traditional method of fish preservation is

|  |  |
| --- | --- |
| (A) | Chilling |
| (B) | Smoking |
| (C) | Salting |
| (D) | Sun drying |

145. Isinglass is employed in

|  |  |
| --- | --- |
| (A) | Preservation of wines |
| (B) | Clearing of wines |
| (C) | Distillation of wines |
| (D) | Preparation of wines |

146. Physostomous is a term associated with

|  |  |
| --- | --- |
| (A) | Intestine |
| (B) | Swim bladder |
| (C) | Gills |
| (D) | Kidney |

147. Gel strength is a quality parameter for

|  |  |
| --- | --- |
| (A) | Freeze dried products |
| (B) | Alginate compounds |
| (C) | Fish silage |
| (D) | Surimi |

148. Carrageenan is obtained from

|  |  |
| --- | --- |
| (A) | *Kappaphycus alvarezii* |
| (B) | *Caulerpa racemosa* |
| (C) | *Sargassum waitei* |
| (D) | *Gracilaria edulis* |

149. Spring Viraemia commonly affects

|  |  |
| --- | --- |
| (A) | Carps |
| (B) | Mussels |
| (C) | Shrimps |
| (D) | Salmon |

150. Fish that deposits eggs in dead molluscan shells is

|  |  |
| --- | --- |
| (A) | *Rhodeus amarus* |
| (B) | *Etroplus surratensis* |
| (C) | *Protopterus aethiopicus* |
| (D) | *Amia calva* |

