

**Asst., Inspector of Fisheries**  
**Basic Fisheries and Applied Fisheries**

**Final Key**

1. Fishes with narrow salinity tolerance are called as .....

**Stenohaline**

2. Transparency in pond water can be measured easily by using which of the following?

**Secchi Disk**

3. The total volume of water used, directly or indirectly to produce a product or service at different stages of production is called .....

**Water footprint**

4. Denaturation of double helical DNA structure can be observed spectrophotometrically by the absorbance of light at .....wavelength.

**260nm**

5. Chemical deterioration of lipids is called as.....

**Rancidity**

6. Albumin and globulin are the major serum proteins in fish, then which of the following statement is true?

**Albumins are soluble in water, globulins are not.**

7. The process of isomerisation does not involve which one of the following interconversion?

**acyl-glycosyl**

8. Ascorbic acid (vitamin C) is a .....

**Water soluble vitamin but with no coenzyme function.**

9. Inosine is commonly found in which of the following?

**tRNA**

10. Which one among the following is not a one-to-one method of fisheries extension communication

**Radio broadcast**

11. Property or resource, owned by individuals, who have right to exclude others from accessing it, is referred as .....

**Private property**

12. Which among the following is not a function of extension?

**Technology generation**

13. The process of assessing the implications for women and men of any planned action, including legislation, policies or programmes, in all areas and at all levels is called.....

**Gender mainstreaming**

14. Value of a commodity when expressed in terms of money is called as

**Price**

15. The level of fishing effort in which the sustainable net return from the fishery is maximum is .....

**MEY**

16. In which year the National Cooperative Development Corporation (NCDC) amended its act to cover fisheries within its purview?

**1974**

17. What is meant by breakeven point in economics?

**Total cost and total revenue are equal**

18. Which among the following is the highest fish producing country.

**China**

19. Those habitats which are necessary for satisfying biological requirements of fishes are called .....

**Essential fish habitats**

20. Which of the following is an anadromous migratory fish.

**Tenualosa ilisha (Hilsa or Pulasa)**

21. Small reservoirs are those having ..... area.

**< 1000ha.**

22. Which of the following rivers is not a west coast river system

**Cauvery**

23. Which among the following is a non-penaeid shrimp?

**Acetes indicus**

24. Fishes which give birth to young ones are called as .....

**Live bearers**

25. Where is the Andhra Pradesh Shrimp Seed Production and Research Centre located at?

**Visakhapatnam**

26. Normally how many moults nauplius larvae of shrimp take to become Protozoa stage?

**Six**

27. Which of the following is not considered as fish seed in aquaculture?

**Sperms**

28. A secondary sexual character that originates from the posterior thoracic sterna of mature female shrimps, especially penaeids is called as .....

**Thelycum**

29. What is the full form of GMAD in Fisheries

**Global Marine Aquarium Database**

30. Which among the following is a marine aquarium fish?

**Dascyllus aruanus**

31. Allowing population of nitrifying bacteria to grow in the filter media of aquaria to remove ammonia and nitrites is called as .....

**Maturing**

32. Which among the following is the ornamental fish 'Neon Tetra'?

**Paracheirodon innesi**

33. Which among the following is Gangetic leaf fish

**Nandus nandus**

34. What is the protein requirement for Indian Major Carp spawn in artificial feeds.

**35 to 40%**

35. Which among the following *spp* is not a live food for fishes

**Pseudochromis spp**

36. Which among the following do not affect ingestion of food by fish larvae?

**Nutrients**

37. Which among the following is not an important nutritional factor affecting larval rearing success?

**LHRH**

38. Which among the following is co-feeding?

**Simultaneous use of inert and live diets**

39. Which organ produces gonad inhibitor hormone (GIH) in shrimps?

**X-organ**

40. Which organ of shrimps produce moulting hormone?

**Y-organ**

41. Which hormone regulates carbohydrate metabolism in crustaceans?

**CHH**

42. Which of the following is the key regulator of vertebrate homeostasis?

**Hypothalamus**

43. Which of the following is known as time-keeping molecule in vertebrates enabling synchronization of physiological processes, metabolism, and behaviour with variations in environmental conditions?

**Melatonin**

44. Process by which message from the DNA in coded form is transferred to mRNA is called

**Transcription**

45. RNA is different from DNA due to presence of .....

**Uracil**

46. During cell division chromosomes are most clearly visible at what stage?

**Metaphase**

47. Who discovered 'Jumping genes'?

**McClintock**

48. The total aggregate of alleles in a population is referred to as.....

**Gene pool**

49. On the basis of which of the following ratios, one can prove law of independent assortment

**9:3:3:1**

50. Which Indian state has the maximum area under shrimp farming?

**Andhra Pradesh**

51. Pen culture in inland waters have been developed in India by which of the following Institutes?

**CIFRI**

52. Which of the following is an organic fertilizer used in aquaculture?

**Cow dung**

53. Which among the following is a common predatory fish in aquaculture ponds?

**Channa striatus**

54. Which among the following is commonly called as brine shrimp?

**Artemia salina**

55. Which among the following consumes lowest amount of water for fish farming?

**Re-circulatory systems**

56. What is the general term that refers to all equipment/gear used by anglers for fishing?

**Fishing tackle**

57. For gill nets, what is the term for 'length of head rope or float line divided by the stretched length of netting'?

**Hanging coefficient**

58. Which among the following is not an important factor that influences fishing efficiency of a gear?

**Food of fish**

59. The length of a fishing vessel, from the foreside of the foremost fixed permanent structure to the aft side of the aftermost fixed permanent structure is called .....

**Overall length**

60. The primary control surface built in to the fishing boats that help steer the vessel is called .....

**Rudder**

61. Which among the following is not used for fishing .....

**Cane trawl**

62. Which among the following increases with increase in population density?

**Competition**

63. Individuals in a population may not be distributed according to one among the following broad patterns

**Temporal**

64. Theoretically, populations of two species may interact in how many basic ways?

**Six**

65. Interaction of two organisms striving for the same thing is called as .....

**Competition**

66. Which among the following is not a food chain?

**Phosphatic chain**

67. Organisms which complete their entire life cycle as plankton are called?

**Holoplankton**

68. Which among the following is not a form of water loss in aquaculture ponds?

**Transpiration**

69. To reduce bank erosion and water seepage, the pond soil should normally contain how much clay?

**30-40%**

70. What is green water principle in freshwater pond aquaculture?

**Indicator of plankton growth**

71. If dissolved oxygen depletion is detected in ponds, which of the following to be adopted?

**Decrease feeding rate**

72. Which among the following is not used for mussel farming?

**Raceways**

73. An output from one farming subsystem becomes an input to another farming subsystem resulting in a greater efficiency of output of desired products from land/water under human control is called .....

**Integrated farming**

74. Which one the following is correctly matched?

***Cyprinus carpio*-Common carp**

75. What is the normal level of Saponin content in *Mahua* oil cake.

**5-6%**

76. Which among the following weeds is most suitable for egg laying in hatchery for common carp?

**Hydrilla**

77. Which among the following explains feed conversion ratio of fishes?

**Quantity of feed required for unit weigh gain**

78. Infectious dropsy in fishes is caused by which of the following?

**Motile *Aeromonas hydrophila***

79. Which of the following antibiotic is approved for aquaculture use?

**Oxytetracycline**

80. Bacterial gill disease in freshwater fish is caused by .....

**Flavobacterium columnare**

81. Which organ of teleost fish is bone-marrow equivalent of mammals?

**Kidney**

82. White to reddish cyst in gill of carps is caused by

**Myxobolus**

83. Which of the following has distribution in water, fish, other animals, soil etc.?

**Edwardsiella tarda**

84. Allowing normal fertilization and then forcing retention of the second polar body in the eggs is called .....

**Polyploid Induction**

85. Allowing karyokinesis while blocking cytokinesis produce..... progeny.

**Tetraploid**

86. The analysis of mtDNA variation is an alternative for studying ..... in fishes.

**Population genetics**

87. Domestication and farming ..... genetic variability in fish.

**Reduces**

88. Most gene transfer research in aquaculture has focused on which gene?

**Growth hormone (GH) gene**

89. Hybrid vigor is also known as .....

**Heterosis**

90. Induced breeding of fin fishes is called .....

**Hypophysation**



91. The release of mature oocytes from ovarian follicles is called .....

**Ovulation**

92. Visible distinguishing characters of fishes are called .....

**Phenotype**

93. Which of the following results due to inbreeding?

**Loss of vigour**

94. The stage of meiosis in which chromosomes pair and cross over is called .....

**Prophase**

95. The ideal ratio for fish to ice in proper preservation of fish in tropical conditions is

**1:1**

96. Freezing the fish products and subliming the ice under low pressure is named as..

**Freeze drying**

97. Extrusion in fish processing combines shear ..... and temperature

**Pressure**

98. Canning of fishes involves cooking, blanching ..... and sterilization.

**Pasteurization**

99. Retortable pouch for packaging fish products consists of how many layers of materials.

**Three**

100. Pulse light technology is an emerging ..... fish processing method.

**Non thermal**

101. Which among the following is the most commonly used type of pump to supply water to ponds?

**Centrifugal pumps**

102. Which among the following is not a method used for particle removal from water in aquaculture?

**Chemical filtration**

103. Aerator stones commonly used in aquaria is example of which of the following type of aerator?

**Diffusion aerator**

104. Which among the following is not an important criteria for site selection for aquaculture pond construction?

**Light intensity**

105. During the process of designing ponds, decisions on which of the following is not important?

**Fish marketability**

106. Which among the following is the most important part of aquaculture pond that helps retention of water and reduces seepage?

**Hearting and Core**

107. In aquaculture systems the acid death point is reached when the water pH falls below.

**4**

108. To avoid dissolved oxygen depletion in aquaculture systems, which of the following is used?

**Use aerators**

109. For amelioration of aquaculture pond soil pH of 4 to 4.5, what is the general dose of lime to be applied?

**1000kg/ha**

110. Which among the following is commonly used for flocculation and coagulation to remove clay turbidity in water?

**Alum**

111. Which among the following is ideal for removing ammonia from aquaculture ponds?

**Zeolite**

112. Which among the following is not a micro nutrient element for fish feed?

**Nitrogen**

113. What is the respective energy (kcal/g) level present in protein, lipid and carbohydrate

**5.6, 9.4, 4.1**

114. How do fishes generally utilize dietary protein?

**Breaking digesting in to amino acids**

115. Metabolic energy is available to fish from proteins, ..... and carbohydrates

**Lipids**

116. Vitamin B2 is also called .....

**Riboflavin**

117. Which of the following systems are comparatively new in Indian aquaculture?

**HDPE based floating cage culture**

118. Based on the production cycle, the carp culture is not classified in to which of the following?

**Multiple stocking-single harvest**

119. Breeding and seed production technologies are not standardized for which of the following fish species?

**Tenualosa ilisha**

120. Which species among the following is most successful in freshwater cage culture in terms of maximum biomass production?

**Pangasianodon hypophthalmus**

121. Trout farming systems in India are mostly practiced in which of the following systems?

**Race way systems**

122. What is the normal duration of nursery phase of Indian Major carps for fry production.

**15 to 20 days**

123. Which among the following is an initiative by Government of India to ensure quality of hatchery produced fish seeds?

**Certification and accreditation**

124. Which among the following is the best available biotechnological tool for induced breeding of fish?

**GnRH**

125. The process of animal development with exclusive maternal inheritance is known as .....

**Gynogenesis**

126. Introduction of exogenous gene/DNA into host genome resulting in its stable maintenance, transmission and expression is called .....

**Transgenics**

127. Materials used to enhance both internal and external microbial environment in aquaculture is collectively called as .....

**Probiotics**

128. Long term preservation and storage of biological material at very low temperatures are known as .....

**Cryopreservation**

129. Which organelle in cells are called powerhouses of the cell? .....

**Mitochondria**

130. Genetic approach to sex manipulation for production of all male or all female or allsterile populations are through the induction of .....

**Ploidy**

131. What is the full form of GPS used in marine navigation

**Global Positioning System**

132. What is the full form of ECDIS, which is a navigation system using vector charts?

**Electronic Chart Display and Information System**

133. The speed of acoustic waves in seawater varies with which of the following combinations of factors?

**Temperature, pressure and salinity**

134. Very High Frequency (VHF) radio waves fall in which of the following range?

**30–300MHz**

135. A carefully constructed device for the reception or transmission of radio energy into the air is called .....

**Antenna**

136. A propagated radio wave that travels in a straight line, used for point-to-point communication is called .....

**Space wave**

137. Which among the following environmental parameters is commonly used for predicting Potential Fishing Zones (PFZ's) through satellite images

**. Sea Surface Temperature**

138. The means of acquiring information about the Earth's surface without actually being in contact with it is called .....

**Remote sensing**

139. Which of the following is an ICT application in fisheries?

**Potential fishing zone advisory**

140. What is the aim of *Kissan Call Centres* established by Department of Agriculture & Co-operation?

**Deliver extension services to the farming community**

141. ICT based '*Aqua Choupal*' is established in which of the following States of India

**Andhra Pradesh**

142. Which of the following is an ICT based e-Governance portal –cum –web enabled workflow based application system?

**FISHNET**

143. What is 'ReALCraft', an ICT based web enabled work flow based online application system used for?

**Issuing vessel registration**

144. The use of electronics, computers, telecommunication infrastructure, software platforms to convert, store, protect, transmit, retrieve, generate information from anywhere, any time to achieve strategic goals are collectively called as .....

**Information Communication Technology**

145. A closed circuit aquaculture system in which aquaculture and hydroponic system are used together and agriculture and fish production operates in an integrated manner is known as.....

**Aquaponics**

146. A polyculture system based on the production of living species which absorb the nutrient waste from aquaculture is abbreviated as .....

**IMTA**

147. Which among the following is a new species in Indian aquaculture?

***Litopenaeus vannamei***

148. Which among the following is frequently used to produce monosex tilapia.

**Methyl testosterone**

149. Enhancing water quality in aquaculture through balancing carbon and nitrogen through aggregates of algae, bacteria, protozoans, and particulate organic matter is known as ..... technology

**Biofloc**

150. The myofibrillar protein concentrate produced by repeated washing of fish mince to remove water soluble nitrogenous matter and flavour compounds is called .....

**Surimi**