

Asst., Inspector of Fisheries
Basic Fisheries and Applied Fisheries

Initial 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 atwavelength.

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 sternite 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 all sterile 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