

**KARNATAKA VETERINARY, ANIMAL AND FISHERIES SCIENCES  
UNIVERSITY, BIDAR**

**Post Graduate Entrance Examinations : 2021-22**

**PhD in Aquaculture**

**Subject Code: P12**

**HALL TICKET NO: .....**

**Date: 10<sup>th</sup> May 2022**

**Max Marks : 100**

**Duration : 2 Hrs.**

**Choose the correct answer from the four options given under each question and fill the relevant circle with black ball point pen in the OMR Sheet.**

**Note: 1) Do not use pencil for marking on the OMR Sheet.**

**2) Marking on the OMR sheet for more than one option for a question will be rendered invalid.**

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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) Non Dietary Nutrients |

3) Black gill disease in shrimp is caused due to

- |                                |  |
|--------------------------------|--|
| (A) High organic content alone | (B) High organic content, debris, ammonia & H <sub>2</sub> S |
| (C) Debris alone               | (D) H <sub>2</sub> S alone                                   |

4) Study of fish body's dietary needs are called as

- |                       |                           |
|-----------------------|---------------------------|
| (A) Nutrition         | (B) Fish Nutrition        |
| (C) Fish in Nutrition | (D) Aquaculture Nutrition |

5) Example for Cytozoic parasite is

- (A) Diphyllbothrium
- (B) Microsporadia
- (C) Nematodes
- (D) Cestodes

6) 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)

7) First sea cage established at Visakhapatnam during 2007 by

- (A) CIBA
- (B) RGCA
- (C) CMFRI
- (D) CIFRI

8) CAAI means

- (A) Coastal Agricultural Authority of India
- (B) Coastal Aquaculture Authority of India
- (C) Coastal Agricultural Aquaculture of India
- (D) Coastal Agroclimatic Authority of India

9) To control water pH within the optimum of 7.5 - 8.5, limit diurnal pH fluctuation to

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

10) Most expensive animal feed ingredient in fish feed is

- (A) Ground Nut oil cake
- (B) Prawn Head Meal
- (C) Squid Meal
- (D) Fish meal

11) Carbohydrate source generally used in fish diet as

- (A) Disaccharide's
- (B) Monosaccharide's
- (C) Polysaccharide's
- (D) Heterosaccharide's

12) FCE is the reciprocal of

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

13) Farming & husbandry of marine aquatic plants & animals in coastal areas of Ponds / Pen / Enclosures in Saline & Brackishwater under controlled conditions is called as

- (A) Mariculture
- (B) Coastal Aquaculture
- (C) Open Mariculture
- (D) Off Shore Farming

14) IMTA means

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

15) Based on nature, factors to be considered in site selection can be grouped as

- (A) Ecological, Biological & Locational factors
- (B) External, Bilateral & Sociological factors
- (C) Economical, Biological & Sociological factors
- (D) Ecological, Biological & Sociological factors

16. Saprologniasis is caused by

- (A) *Saprolognia parasitica*
- (B) *Sapro parasitica*
- (C) Bacterial Disease
- (D) Viral Disease

17. 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) Surface hitting pond

18. Pokkali fields are otherwise called as

- (A) Trapping & Holding System
- (B) Trapping & Filtration System
- (C) Trapping & Receding System
- (D) Gravitational force system

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

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

20. The method by which draining water in the pond to induce milk fish to swim through gate is known as

- (A) Pasulang
- (B) Non water current
- (C) Central drainage
- (D) Dragging pond surface water

21. Under sized lobsters are

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

22. 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

23. Ghery fields in Odhisa otherwise called as

- (A) Trapping & Holding System
- (B) Trapping & Filtration System
- (C) Trapping & Receding System
- (D) Pump fed system

24. First Experimental Brackishwater Fish Farm (Kakdwip) by CIFRI under ICAR during

- (A) 1983
- (B) 1993
- (C) 1963
- (D) 1973

25. Overall Protecting Structure” of a pond is

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

26. Frost Allowance must be given while designing

- (A) Sluice
- (B) Monk
- (C) Main bund
- (D) Culvert

27. Longest horizontal distance in a pond is called

- (A) Free Board
- (B) Wetch
- (C) Hetch
- (D) Fetch

28. Live feeds are considered as

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

29. Scientific study of algae

- (A) Physiology
- (B) Phycologist
- (C) Phycology
- (D) Mucologist

30. Altricial larvae seems to incapable of processing

- (A) Ornamental live feed
- (B) Formulated feeds
- (C) Aquatic feed
- (D) Earth worm

31. Microalgae grown typically contain more protein in

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

32. Live feeds are classified in to

- (A) Sinking & Floating feed
- (B) Fish Nutrition & Fish in Nutrition
- (C) Aquatic & Non aquatic feed
- (D) Finfish & Shellfish Nutrition

33. Soil Texture consist of

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

34. Excavated ponds are constructed

- (A) Below the ground level
- (B) Above the ground level
- (C) Below & Above the ground level
- (D) From Artesian Level

35. Three major causes of fish diseases are

- (A) Parasitic, non parasitic & nutritional factors
- (B) Stress, poor intake and poor soil
- (C) Poor water quality, environmental pathogens & low resistance of fish stock
- (D) Sand / Silt / Clay

36. When applying fish drugs, avoid contact with

- (A) Spleen, Liver & pancreas
- (B) Eyes, mouth & skin
- (C) Pancreas, skin & spleen
- (D) Kidney, lungs, heart

37. Vibriosis is a bacterial disease caused by

- (A) *Cestode*
- (B) *Bibrio*
- (C) *Vibrio*
- (D) *Nematode*

38. Better production and lower risk of disease outbreaks in

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

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

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

40. Disease of fishes is classified as

- (A) Cestode & Nematode
- (B) Parasitic & non-parasitic disease
- (C) Fungi & Bacteria
- (D) Viral disease

41. Milk fish prefer

- (A) Geosmin
- (B) Lumet
- (C) Lab lab
- (D) Pepsi Weed

42. Carnivores have good capacity to digest Protein & fat than

- (A) CHO
- (B) Vitamins
- (C) Minerals
- (D) Fibre & Ash

43. IPN stands for

- (A) Infections Pan Necrosis
- (B) Infections Pancreatic Necrosis
- (C) Infectious Pyramid Necrosis
- (D) Necropeca

44. In salmon fishes, Furunculosis disease is caused by

- (A) *Vibrio salmonella*
- (B) *Aeromonas salmonicida*
- (C) *Aeromonas coccus*
- (D) WSSV

45. In *Artemia* hatching, 3 steps involved are

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

46. Large scale introduction *vannamei* shrimp farming was introduced during

- (A) 2011
- (B) 1985
- (C) 2009
- (D) 2021

47. The scientific name of pearl spot is

- (A) *Lates calcarifer*
- (B) *Etroplus suratensis*
- (C) *Mugil cephalus*
- (D) *Catla catla*

48. The scientific name of sea bass is

- (A) *Lates calcarifer*
- (B) *Etroplus suratensis*
- (C) *Mugil cephalus*
- (D) *Cyprinus carpio*

49. The total world aquaculture production during 2018 is

- (A) 80.100 lakhs tones
- (B) 80.100 billion tonnes
- (C) 82.100 million tones
- (D) 51.30 million tonnes

50. World per capita fish consumption / Annum / person during 2018 is

- (A) 20.50 g
- (B) 20.50 kg
- (C) 20.50 mg
- (D) 20.50 pounds

51. The earliest beginners of aquaculture are

- (A) Egyptians
- (B) Indians
- (C) Africans
- (D) Chinese

52. Indian Fish Production during 2019 - 20 is

- (A) 14.164 lakhs tones
- (B) 14.164 billion tonnes
- (C) 14.164 million tones
- (D) 10.437 million tonnes

53. 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



54. West Bengal fish seed production during 2019 - 20 is

- (A) 1,24,550 billion fry (B) 1,24,550 lakhs fry  
(C) 30,287.800 lakhs fry (D) 1,24,550 millions fry

55. The number of BFDA's in Tamil Nadu & In India is

- (A) 39 & 5 (B) 39 & 0.5  
(C) 3.9 & 5 (D) 5 & 39

56. Two main pillars for growth for Inland Resources are

- (A) Brackishwater / Marine (B) Lagoon & Derelict Water Aquaculture  
Aquaculture  
(C) Estuary & Backwater (D) Reservoir / Freshwater Aquaculture  
Aquaculture

57. Tamil Nadu fish production during 2019 - 20 is

- (A) 0.759 lakhs tones (B) 0.759 lakhs tonnes  
(C) 0.759 million tones (D) 0.583 million tonnes

58 Good size pen to begin fish farming is

- (A) 10 x 10 m (B) 100 x 100 cm  
(C) 100 x 100 m (D) 1 x 1 m

59. First sea cage Established at Visakhapatnam by CMFRI during

- (A) 2005 (B) 2006  
(C) 2008 (D) 2007

60. Tripura per capita fish consumption / annum / year during 2019 - 20 is

- (A) 19.41 kg (B) 14.410 kg  
(C) 29.29 kg (D) 9.600 kg

61. Apex body in agriculture & related allied fields including research & education is

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

62. The number of FFDA's in India is

- (A) 4220 (B) 322
- (C) 42 (D) 422

63. New entrant in Indian mariculture sector is

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

64. The total world inland aquaculture production during 2018 is

- (A) 51.30 lakhs tones (B) 51.30 billion tonnes
- (C) 51.30 million tonnes (D) 30.800 million tonnes

65. In India, which state ranking first in marine fish production during 2019 – 20 is

- (A) Gujarat (B) West Bengal
- (C) Tamil Nadu (D) Andhra Pra

66. Indian marine fish production during 2019 - 20 is

- (A) 3.727 lakhs tones (B) 3.727 billion tonnes
- (C) 3.727 million tonnes (D) 10.437 million tonnes

67. The largest inland fisheries resource in India is

- (A) Marine water (B) Reservoir
- (C) Freshwater (D) Backwater

68. Kerala per capita fish consumption / annum / year during 2019 - 20 is

- (A) 14.410 kg (B) 19.41 kg
- (C) 29.29 kg (D) 9.600 kg

69. The number of BFDA's in India is

- |        |        |
|--------|--------|
| (A) 29 | (B) 49 |
| (C) 19 | (D) 39 |

70. The traditional practice of fish farming with rice in Kerala is called as

- |               |                 |
|---------------|-----------------|
| (A) Pokkali   | (B) Ghery field |
| (C) Khar land | (D) Bheries     |

71. Tamil Nadu marine fish production recorded during 2019 - 20 is

- |                         |                          |
|-------------------------|--------------------------|
| (A) 0.583 lakhs tones   | (B) 0.583 lakhs tonnes   |
| (C) 0.583 million tones | (D) 0.174 million tonnes |

72. Right size to keep smaller fish & also to let freshwater flow through in cage is

- |                 |                  |
|-----------------|------------------|
| (A) 1 x 1 cm    | (B) 1.5 x 1.5 mm |
| (C) 1.5 x 1.5 m | (D) 1.5 x 1.5 cm |

73. In India, the first sea cage is established by CMFRI during 2007 at

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

74. The example for plant derivatives based fish toxicant is

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

75. The number of BFDA's in Tamil Nadu is

- |       |       |
|-------|-------|
| (A) 7 | (B) 6 |
| (C) 8 | (D) 5 |

76. First RAS started in

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

77. Ornamental fishes can aptly be called as

- (A) Flowers of the sea
- (B) Living pearls
- (C) Living jewels
- (D) Rain forests of the sea

78. Major ornamental fish exporting center of India is

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

79. The scientific name of Koi carp is

- (A) *Trichogaster trichopterus*
- (B) *Carassius auratus*
- (C) *Betta splendens*
- (D) *Cyprinus carpio var koi*

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

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

81. Setting up of an aquarium is otherwise called as

- (A) Aquascaping
- (B) Aquamimicking
- (C) Aquaponics
- (D) Hydroponics

82. Under gravel filters are otherwise called as

- (A) Canister filters
- (B) Mechanical filters
- (C) Biological filters
- (D) Trickle down filters

83. Which among the following is known as Amazon sword plant

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

84. *Paramaecium* can be cultured in a medium containing

- (A) Banana peelings
- (B) Cabbage
- (C) Potato
- (D) Fruits peelings

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

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

86. Secondary sexual characteristic of male gold fish is

- (A) Pearl organ
- (B) Tubercle
- (C) Pimples
- (D) Itchy Organ

87. Bubble nest builder among the following is

- (A) Gourami
- (B) Angel fish
- (C) Fighter fish
- (D) Gourami & Fighter fish

88. 'Kohaku' is a variety of

- (A) Gold fish
- (B) Koi carp
- (C) Angel fish
- (D) Bettas

89. White spot disease is caused by

- (A) Ichthyophthirius
- (B) Columnaris
- (C) Ectoparasite
- (D) Fungi

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

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

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

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

92. Among the following freshwater ornamental fish species, which is the most imported one

- (A) Guppy
- (B) Koi carp
- (C) Angelfish
- (D) Gold fish

93. 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

94. Major ornamental fish importing countries are

- (A) USA
- (B) Japan
- (C) Europe
- (D) Chile

95. The scientific name of zebra fish is

- (A) *Puntius denisonii*
- (B) *Brachydanio rerio*
- (C) *Colisa lalia*
- (D) *Pterophyllum scalare*

96. Number of glass panes needed for fabricating a rectangular aquarium tank is

- (A) 4
- (B) 5
- (C) 6
- (D) 10

97. Filter media among the following is

- (A) Peat
- (B) Activated charcoal
- (C) Organic Carbon
- (D) ASS

98. Majority of ornamental fishes prefer a water hardness of

- (A) <12 ppm
- (B) 12-100ppm
- (C) 100-300ppm
- (D) >300ppm

99. A marginal aquatic plant among the following is

- |                        |                        |
|------------------------|------------------------|
| (A) <i>Echinodorus</i> | (B) <i>Najas</i>       |
| (C) <i>Potamogeton</i> | (D) <i>Utricularia</i> |

100. Cow dung is the medium for culturing

- |                     |             |
|---------------------|-------------|
| (A) Mosquito larvae | (B) Rotifer |
| (C) Infusoria       | (D) Daphnia |

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