

# 009/2018

Question Booklet  
Alpha Code

A

Question Booklet  
Serial Number

Total No. of Questions: 100

Maximum : 100 Marks

Time : 75 Minutes

## INSTRUCTIONS TO CANDIDATES

1. The question paper will be given in the form of a Question Booklet. There will be four versions of question booklets with question booklet alpha code viz. A, B, C & D.
2. The Question Booklet Alpha Code will be printed on the top left margin of the facing sheet of the question booklet.
3. The Question Booklet Alpha Code allotted to you will be noted in your seating position in the Examination Hall.
4. If you get a question booklet where the alpha code does not match to the allotted alpha code in the seating position, please draw the attention of the Invigilator IMMEDIATELY.
5. The Question Booklet Serial Number is printed on the top right margin of the facing sheet. If your question booklet is un-numbered, please get it replaced by new question booklet with same alpha code.
6. The question booklet will be sealed at the middle of the right margin. Candidate should not open the question booklet, until the indication is given to start answering.
7. Immediately after the commencement of the examination, the candidate should check that the question booklet supplied to him contains all the 100 questions in serial order. The question booklet does not have unprinted or torn or missing pages and if so he/she should bring it to the notice of the Invigilator and get it replaced by a complete booklet with same alpha code. This is most important.
8. A blank sheet of paper is attached to the question booklet. This may be used for rough work.
9. **Please read carefully all the instructions on the reverse of the Answer Sheet before marking your answers.**
10. Each question is provided with four choices (A), (B), (C) and (D) having one correct answer. Choose the correct answer and darken the bubble corresponding to the question number using Blue or Black Ball-Point Pen in the OMR Answer Sheet.
11. **Each correct answer carries 1 mark and for each wrong answer 1/3 mark will be deducted. No negative mark for unattended questions.**
12. No candidate will be allowed to leave the examination hall till the end of the session and without handing over his/her Answer Sheet to the Invigilator. Candidates should ensure that the Invigilator has verified all the entries in the Register Number Coding Sheet and that the Invigilator has affixed his/her signature in the space provided.
13. Strict compliance of instructions is essential. Any malpractice or attempt to commit any kind of malpractice in the Examination will result in the disqualification of the candidate.

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**009/2018**

Maximum : 100 Marks

Time : 1 hour and 15 minutes

1. Kaziranga, the famous sanctuary of Assam is famous for  
(A) Rhinoceros (B) Tigers  
(C) Lions (D) Elephants
2. Climate of India is \_\_\_\_\_ .  
(A) Mediterranean Type (B) Equatorial Type  
(C) Desert Type (D) Monsoon Type
3. Which State in India has the lowest number of females in comparison to males ?  
(A) Bihar (B) Haryana  
(C) Rajasthan (D) Punjab
4. Which of the following state has the lowest literacy rates in India ?  
(A) Bihar (B) Chhattisgarh  
(C) Jharkhand (D) Rajasthan
5. Operation Black-Board aims at  
(A) providing education to urban slum dwellers.  
(B) promoting adult literacy.  
(C) providing primary education in an educationally backward.  
(D) opening of new schools specially for female children.
6. Which of the following is an indicator of poverty in India ?  
(A) Income level (B) Literacy Level  
(C) Employment Level (D) All of these
7. In which year the Planning Commission of India was constituted ?  
(A) 1942 (B) 1947  
(C) 1950 (D) 1958
8. 'Twenty point Programme' was launched in the year  
(A) 1969 (B) 1980  
(C) 1975 (D) 1977
9. The First Five Year Plan in India was from  
(A) 1947-1952 (B) 1949-1954  
(C) 1950-1955 (D) 1951-1956
10. Which Five Year Plan is also known as "Gadgil Yojana" ?  
(A) Second Five Year Plan (B) Third Five Year Plan  
(C) Fourth Five Year Plan (D) Fifth Five Year Plan

A

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**009/2018**  
**[P.T.O.]**

11. Who was the first Public Service Commissioner appointed in Travancore ?  
(A) G.D. Knox (B) Col. Munro  
(C) William Barten (D) Macaulay
12. Which of the following was the main reason for the outbreak of 1857 revolt ?  
(A) Introduction of Enfield rifle  
(B) Introduction of Doctrine of Lapse  
(C) Introduction of Subsidiary alliance  
(D) Both (A) and (B)
13. The revolt of 1857 started at  
(A) Madras (B) Poona  
(C) Surat (D) Meerut
14. The Novel 'Anandamath' was written by  
(A) Devendranath Tagore (B) Bankim Chandra Chatterji  
(C) Rabindranath Tagore (D) Dadabhai Naoroji
15. Where is the wind farm power project in Kerala located ?  
(A) Kanjikode (B) Ramakkalmedu  
(C) Kayamkulam (D) Both (A) and (B)
16. The social reformer of Kerala who opened his family temple for everyone ?  
(A) Narayana Guru (B) E.V Ramaswami  
(C) Mannathu Padmanabhan (D) Ayya Vaikunder
17. The date of Temple Entry Proclamation in Travancore ?  
(A) 12 November, 1936 (B) 12 November, 1939  
(C) 12 November, 1947 (D) 12 November, 1951
18. Who published the Arabic-Malayalam monthly called 'Al-Islam' ?  
(A) Abdur Rahiman (B) Ali - Musaliyar  
(C) Abdul Khadir Maulavi (D) Siti Koya Thangal
19. Which country has successfully launched Satellite- carrying rocket "Simorgh" into space ?  
(A) Iran (B) Japan  
(C) France (D) Germany
20. Which Metro will become the India's first metro to have its own FM Radio Station ?  
(A) Delhi Metro (B) Kolkata Metro  
(C) Lucknow Metro (D) Nagpur Metro

21. Shrimp species that contributes approximately 75 % of the total farmed shrimp production of India.  
(A) *Fenneropenaeus indicus* (B) *Litopenaeus vannamei*  
(C) *Penaeus monodon* (D) *Macrobrachium rosenbergii*
22. Secondary sexual character that helps to identify male *Poecilia reticulata* is  
(A) *Gonopodium* (B) *Tubercles*  
(C) *Claspers* (D) *Conical Genital Papilla*
23. How many species of finfishes and shellfishes have been notified fixing MLS under the Marine Fisheries Act of Kerala so far ?  
(A) 66 (B) 43  
(C) 14 (D) 58
24. Labyrinthine organs are characteristic of \_\_\_\_\_  
(A) *Mollenesia sphenops* (B) *Gadus morhua*  
(C) *Trichogaster trichopter* (D) *Pterophyllum scalare*
25. Deficiency of Ascorbic acid can cause \_\_\_\_\_ in fish.  
(A) *Broken back disease* (B) *Gill rot*  
(C) *Necrosis* (D) *Septicaemia*
26. Trilobed caudal fin is seen in \_\_\_\_\_  
(A) *Nemipterus mesoprion* (B) *Harpodon nehereus*  
(C) *Lepturacanthus savala* (D) *Conger cinereus*
27. The causative organism of Aflatoxicosis is  
(A) *Pseudomonas* (B) *Salmonella*  
(C) *Aspergillus* (D) *Rhabdovirus*
28. Which one of the following shows protandry ?  
(A) *Chanos chanos* (B) *Epinephelus tauvina*  
(C) *Alepes djedaba* (D) *Lates calcarifer*

29. The headquarters of National Institute of Oceanography is located at :
- (A) Lucknow (B) Hyderabad  
(C) Dona paula (D) Cochin
30. An example for omega -3 fatty acid is \_\_\_\_\_
- (A) *Eicosa Pentaenoic acid* (B) *Pantothenic acid*  
(C) *Nicotinic acid* (D) *Pyruvic acid*
31. In bivalve culture \_\_\_\_\_ determines the time to harvest.
- (A) Gonado Somatic Index (B) Digestive Gland Index  
(C) Condition factor (D) Feed Efficiency Ratio
32. Phyllosoma larval stage is seen in
- (A) Mussels (B) Lobsters  
(C) Crabs (D) Sponges
33. Which one of the following organizations comes under the Department of Fisheries, Kerala ?
- (A) NETFISH (B) NFDB  
(C) CIFT (D) FIRMA
34. Parasitic castration in crabs is caused by \_\_\_\_\_
- (A) *Trichodesmium* (B) *Fusarium*  
(C) *Sacculina* (D) *Argulus*
35. *Aeromonas* is a \_\_\_\_\_ pathogen.
- (A) Fungal (B) Protozoan  
(C) Bacterial (D) Viral
36. *Pinctada margaritifera* yields \_\_\_\_\_
- (A) Black pearls (B) Squalene  
(C) Sodium alginate (D) Agar Agar

37. Nauplii larvae feed on \_\_\_\_\_  
(A) *Artemia* (B) *Chaetoceros*  
(C) *Pavlova* (D) *Yolk*
38. Which country has developed '*Chitralada*' variety of Tilapia ?  
(A) Malaysia (B) Thailand  
(C) Myanmar (D) Indonesia
39. The compound that gives characteristic odour and flavour of marine fish is \_\_\_\_\_  
(A) Trimethylamine Oxide (B) Histidine  
(C) Hypoxanthine (D) Thiobarbituric acid
40. \_\_\_\_\_ is the measure of the degree of oxidation of the fat.  
(A) Peroxide value (B) Rancidity  
(C) K-Value (D) Glycine index
41. Scientific name of Sea catfish is \_\_\_\_\_  
(A) *Hypophthalmichthys molitrix*  
(B) *Rachycentron canadum*  
(C) *Arius thalassinus*  
(D) *Horabagrus brachysoma*
42. Bacterial spoilage in canned food is caused by  
(A) *Listeria* (B) *Clostridium*  
(C) *Shigella* (D) *Staphylococcus*
43. Puffer fishes belong to the family \_\_\_\_\_  
(A) *Mastacembelidae* (B) *Muraenosocidae*  
(C) *Anguillidae* (D) *Tetradontidae*
44. Chitosan is \_\_\_\_\_ chitin.  
(A) dehydrated (B) deoxidized  
(C) demineralized (D) deacetylated

45. The annual estimated marine fish landings in India during 2016 is  
(A) 3.59 million metric tons (B) 3.63 million metric tons  
(C) 3.78 million metric tons (D) 3.28 million metric tons
46. Acute Hepatopancreatic Necrosis syndrome is otherwise known as  
(A) White spot Virus disease (B) Infectious Salmon Anaemia  
(C) Early Mortality Syndrome (D) None of the above
47. The first fishery that is certified by the Marine Stewardship Council (MSC) in India is located in \_\_\_\_\_.  
(A) Ennore backwaters (B) Chilika Lake  
(C) Lakshadweep (D) Ashtamudi Lake
48. NIFPHATT is  
(A) National Institute of Fisheries Post Harvest, Aquaculture Technology and Training.  
(B) National Institute of Fisheries Post Harvest Technology and Training.  
(C) National Industrial Fisheries Project on Harvest Technology and Training.  
(D) National Industrial Fisheries Processing, Harvest Technology and Training.
49. Gel strength is a quality parameter for \_\_\_\_\_  
(A) Freeze dried products (B) Fish silage  
(C) Alginate compounds (D) Surimi
50. The presence of glass like crystals in brine packed shrimp is \_\_\_\_\_  
(A) Struvite formation (B) Retort burn  
(C) Mush (D) Sulphide blackening
51. Ambergris is obtained from \_\_\_\_\_  
(A) Dolphin (B) Blue whale  
(C) Sperm whale (D) Shark
52. *Carrageenan* is sourced from  
(A) *Gracilaria edulis* (B) *Sargassum waitei*  
(C) *Caulerpa racemosa* (D) *Kappaphycus alvarezii*

53. Spring Viraemia commonly affects \_\_\_\_\_  
(A) Carps (B) Shrimps  
(C) Salmon (D) Mussels
54. Ethoxyquin is an example for \_\_\_\_\_  
(A) Anti-oxidant (B) Anti-biotic  
(C) Immunostimulant (D) Steroid hormone
55. An example for a larvivorous fish is \_\_\_\_\_  
(A) *Lebistes reticulatus* (B) *Beta splendens*  
(C) *Aplocheilus blochii* (D) *Xiphophorus helleri*
56. Brine shrimp is \_\_\_\_\_  
(A) *Nematopalaemon* (B) *Heterocarpus*  
(C) *Aristius* (D) *Artemia*
57. For the construction of firm bunds, the ratio to be followed for silt, sand and clay is  
(A) 1:3:2 (B) 1:2:3  
(C) 2:3:1 (D) 3:2:1
58. An example for floating weed is \_\_\_\_\_  
(A) *Ceratophyllum* (B) *Nymphaea*  
(C) *Eicchornia* (D) *Hydrilla*
59. Hypophisation was successfully tried in India during \_\_\_\_\_  
(A) 1962 (B) 1957  
(C) 1967 (D) 1978
60.  $\frac{\text{Total dry weight of feed}}{\text{Total wet weight gained}}$  is known as \_\_\_\_\_.  
(A) Productive Protein value (B) Feed Efficiency Ratio  
(C) Protein Efficiency Ratio (D) Feed Conversion Ratio

61. Central Marine Fisheries Research Institute (CMFRI) has successfully developed recently the seed production technology for
- (A) *Trachinotus mookalee*                      (B) *Amhiprion ocellatus*  
(C) *Hippocampus kuda*                      (D) *Ompok pabda*
62. One of the following is a characteristic of the gut system of herbivorous fish :
- (A) Short and narrow                      (B) Long and narrow  
(C) Long and coiled                      (D) Broad and thick
63. One of the following hormone is not used in induced breeding of fishes
- (A) Ovaprim                      (B) Dopamine  
(C) HCG                      (D) GTH
64. Hormone that helps to retain larval characters and juvenile characters in crustaceans is \_\_\_\_\_ .
- (A) *Methyl farnesoate*                      (B) *Crustecdysone*  
(C) *Vitellin*                      (D) *Somatotrophic hormone*
65. Hydrocyanin is an anti-nutritional factor found in \_\_\_\_\_ .
- (A) Cotton seed                      (B) Groundnut  
(C) Tapioca                      (D) Soybean
66. Fish that deposits eggs in dead molluscan shells is \_\_\_\_\_ .
- (A) *Protopterus aethiopicus*                      (B) *Amia calva*  
(C) *Etroplus suratensis*                      (D) *Rhodeus amarus*
67. Turbidity in aquaculture ponds is measured using \_\_\_\_\_ .
- (A) Refractometer                      (B) Seechi disc  
(C) Winkler's method                      (D) Spectrophotometer
68. Which is the most commonly used cryoprotectant ?
- (A) Glycerol                      (B) Ethylene Glycol  
(C) Glutathione                      (D) Dimethyl sulfoxide

69. Young ones of eels are known as \_\_\_\_\_  
 (A) *Elvers* (B) *Ammocoetus*  
 (C) *Spat* (D) *Smolt*
70. An example for corbiculid clam species is \_\_\_\_\_  
 (A) *Paphia malabarica* (B) *Anadara granosa*  
 (C) *Villorita cyprinoides* (D) *Thais rudolphi*
71. A hormone that influence osmoregulation, mating and egg laying is \_\_\_\_\_  
 (A) Thyrotropin (B) Oxytocin  
 (C) Leutinising hormone (D) Serratonin
72. *Tenualosa ilisha* is \_\_\_\_\_  
 (A) *stenohaline* (B) *straddling*  
 (C) *catadromous* (D) *anadromous*
73. Type of fishing by unattended, dumped or abandoned fishing gears is referred as \_\_\_\_\_  
 (A) Trap fishing (B) Ghost fishing  
 (C) Artificial reef (D) Jigging
74. *Calanus* is a \_\_\_\_\_  
 (A) Zooplankton (B) Fish Parasite  
 (C) Phytoplankton (D) Fungus
75. The hatchlings of Rainbow trout comes out in \_\_\_\_\_ days.  
 (A) 14-16 (B) 24-26  
 (C) 10-12 (D) 35-40
76. State with largest coastline in India is \_\_\_\_\_  
 (A) Gujarat (B) Andhra Pradesh  
 (C) Tamil Nadu (D) Kerala
77. The term '*nobashi*' refers to the product \_\_\_\_\_  
 (A) shell on mussel meat (B) cooked shrimp  
 (C) stretched shrimp (D) breaded fillet

78. In the embryonic development of fish, the disc of cells formed on the animal pole of egg is termed as \_\_\_\_\_
- (A) *Mesoderm* (B) *Chorion*  
(C) *Periblast* (D) *Blastoderm*
79. \_\_\_\_\_ helps osmoregulation in fresh water fishes.
- (A) Chloride cells (B) Ampulla  
(C) Pyloric caeca (D) Sinus venosus
80. "Physostomous" is a term associated to the \_\_\_\_\_ of fish.
- (A) Gills (B) Intestine  
(C) Swim bladder (D) Kidney
81. Trawl ban is observed in Kerala for \_\_\_\_\_ days.
- (A) 61 (B) 46  
(C) 45 (D) 47
82. Organism that helps to reduce ammonia load in a bio-filter is \_\_\_\_\_
- (A) *Aeromonas* (B) *Nitrosomonas*  
(C) *Bacillus megaterium* (D) *Rhizobium*
83. Induced breeding of bivalves are done by \_\_\_\_\_
- (A) Thermal stimulation (B) Artificial insemination  
(C) Electrocauterisation (D) Photoperiod regulation
84. Gas bubble disease happens when the \_\_\_\_\_ content of water goes up.
- (A) Oxygen (B) Alkalinity  
(C) Nitrogen (D) Arsenic

85. In fishes, testosterone is produced by \_\_\_\_\_  
(A) Androgenic gland (B) Leydig cells  
(C) Spermatheca (D) Vas deferens
86. There are \_\_\_\_\_ larval stages for *Macrobrachium rosenbergii*.  
(A) 2 (B) 4  
(C) 10 (D) 12
87. The copulatory organ in cephalopods is known as \_\_\_\_\_  
(A) *Hectocotylus* (B) *Petasma*  
(C) *Gonopodium* (D) *Needham's sac*
88. Each compound eye of crustacean is formed of several visual units called \_\_\_\_\_  
(A) *Statocyst* (B) *Ommatidia*  
(C) *Ostia* (D) *Ossicles*
89. In isometric growth,  $W \propto l^b$ , where  $b = ?$   
(A) 2 (B) 10  
(C) 3 (D) 100
90. One of the following methods is not used to combine the DNA segments.  
(A) Gibson assembly (B) Amplification  
(C) Ligase cloning (D) Restriction enzyme
91. In the fin formula D II 3, 'II' denotes the number of \_\_\_\_\_  
(A) rays (B) sharp spines  
(C) weak spines (D) dorsal fins
92. Marine catfishes and seahorses exhibits \_\_\_\_\_ as a fright response or territorial display.  
(A) Chemoreception (B) Pheromone secretion  
(C) Stridulation (D) Parental care

93. Cephalopods in Indian waters are known to get contaminated by the following heavy metal :
- (A) Cadmium (B) Mercury  
(C) Lead (D) Arsenic
94. King of Herrings is \_\_\_\_\_
- (A) Myriacanthus (B) Harriotta  
(C) Callorhynchus (D) Chimaera
95. The placoid scales of Elasmobranchs are developed from \_\_\_\_\_ cells.
- (A) epithelial (B) dermal  
(C) branchial (D) columnar
96. Shangla jal is a fishing net used in \_\_\_\_\_
- (A) Gujarat (B) West Bengal  
(C) Maharashtra (D) Odisha
97. In states like Himachal Pradesh, trout farming is done in \_\_\_\_\_ .
- (A) cages (B) earthen ponds  
(C) reservoirs (D) raceways
98. One of the following rivers joins Cauvery riverine system :
- (A) Periyar (B) Neyyar  
(C) Kabani (D) Manimala
99. The anaesthetic seen in clove oil and used in transportation of live fishes is \_\_\_\_\_
- (A) Quinaldine (B) Benzocaine  
(C) Phenoxy ethanol (D) Eugenol
100. \_\_\_\_\_ help a filter feeder.
- (A) Gill rakers (B) Barbels  
(C) Gill arches (D) Teeth

**SPACE FOR ROUGH WORK**

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