



JAMMU AND KASHMIR PUBLIC SERVICE COMMISSION

RESHAM GHAR COLONY, BAKSHI NAGAR, JAMMU - 180001

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Subject: Conduct of Written Examination for the post of Fisheries Development Officer in Agriculture Production Department - Provisional Answer Key thereof.

Notification No. PSC/Exam/S/2024/27

Dated: 28.05.2024

In pursuance of Rule 10(c) of the Jammu & Kashmir Public Service Commission (Conduct of Examination) Rules, 2022, as amended upto date, the Provisional Answer Key of Question Paper pertaining to the **Written Test for the post of Fisheries Development Officer** held on **28.05.2024**, is hereby notified for seeking objections from candidates:

Provisional Answer Key

Test Booklet Question No. (Series A)	
Q1	B
Q2	B
Q3	A
Q4	B
Q5	A
Q6	B
Q7	A
Q8	B
Q9	A
Q10	A
Q11	C
Q12	C
Q13	A
Q14	C
Q15	C
Q16	B
Q17	A
Q18	C
Q19	B
Q20	A
Q21	A
Q22	C
Q23	B
Q24	A
Q25	B
Q26	C
Q27	C

Test Booklet Question No. (Series A)	
Q28	B
Q29	A
Q30	A
Q31	D
Q32	C
Q33	C
Q34	A
Q35	D
Q36	A
Q37	C
Q38	B
Q39	C
Q40	A
Q41	B
Q42	B
Q43	D
Q44	D
Q45	A
Q46	A
Q47	A
Q48	C
Q49	A
Q50	B
Q51	B
Q52	D
Q53	D
Q54	C

Test Booklet Question No. (Series A)	
Q55	B
Q56	C
Q57	A
Q58	B
Q59	D
Q60	B
Q61	B
Q62	A
Q63	B
Q64	A
Q65	C
Q66	A
Q67	C
Q68	A
Q69	B
Q70	C
Q71	C
Q72	D
Q73	A
Q74	A
Q75	A
Q76	C
Q77	B
Q78	A
Q79	D
Q80	B
Q81	C

Test Booklet Question No. (Series A)	
Q82	C
Q83	A
Q84	C
Q85	A
Q86	A
Q87	A
Q88	A
Q89	B
Q90	D
Q91	A
Q92	D
Q93	D
Q94	D

Test Booklet Question No. (Series A)	
Q95	C
Q96	A
Q97	A
Q98	C
Q99	B
Q100	C
Q101	C
Q102	C
Q103	C
Q104	C
Q105	D
Q106	C
Q107	B

Test Booklet Question No. (Series A)	
Q108	B
Q109	A
Q110	B
Q111	A
Q112	C
Q113	C
Q114	D
Q115	C
Q116	D
Q117	B
Q118	C
Q119	A
Q120	D

The candidates are advised to refer to **Question Booklet (Series A)** to match the corresponding question(s) in their respective Question Booklet Series and if any candidate feels that the key to any of the question(s) is/are wrong, he/she may represent on prescribed format/proforma annexed as **Annexure-A** along with the documentary proof/evidence (**hard copies only**) and fee of Rs.500/- per question in the form of Demand Draft drawn in favour of **COE, J&K PSC** (refundable in case of genuine/correct representation) to the Controller of Examinations, Jammu & Kashmir Public Service Commission, from 29.05.2024 to 31.05.2024. **The candidates are further advised to clearly mention the question(s) objected to with reference to its serial number as it appears in the Question Booklet of Series A of the Provisional Answer Key.**

Further, any objection/application not accompanied by the requisite Demand Draft of Rs.500/- as prescribed, shall not be considered/entertained under any circumstances. Candidates are, in their own interest, advised to adhere to these instructions and not submit any objection unaccompanied by the Demand Draft as required under extant rules.

The Commission shall not entertain any such representation(s) after the expiry of the stipulated period i.e. **after 31.05.2024 (Friday), 05.00 pm.**

The provisional answer key is available on the website of the Commission <http://www.jkpsc.nic.in>.

28.05.2024

(G.L Sharma), JKAS

Additional Secretary

J&K Public Service Commission

Dated: 28.05.2024

No. PSC/Ex-Secy/2024/21

Copy to the:-

1. Director, Information and Public Relations, J&K for publication of the notice in all leading newspapers published from Jammu/Srinagar.
2. P.S. to Hon'ble Chairman, J&K Public Service Commission for information of the Hon'ble Chairman.
3. P.S. to Hon'ble Member, Shri _____ for information of the Hon'ble Member.

4. P. A. to Secretary, J&K Public Service Commission for information of the Secretary.
5. P.A. to Controller of Examinations, J&K Public Service Commission.
6. Main file/Stock file/Notice Board.

A handwritten signature in black ink, consisting of a large, stylized loop followed by a horizontal line that tapers to the right.

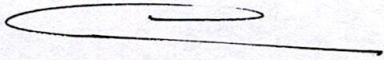
Annexure-A

Representation regarding objection(s) to any Question/Answer pertaining to the Written Test conducted for the post(s) of Fisheries Development Officer on 28.05.2024

(NOTE: USE SEPARATE FORMS FOR SEPARATE QUESTIONS)

Name of the Applicant : _____
Roll No. : _____
Correspondence Address : _____
Contact/Mobile No. : _____
Date of Application: _____ .05.2024
Demand Draft No. date : _____
Candidates Account No.(16 digit) & IFSC Code : _____

Question No. in Series A	Details of the Objection	Resource Material (copy to be enclosed)	Details of the Website (if any)
<u>Correct Answer/Option as per candidate :</u>			



Signature of the Candidate

Note: Application for each question/answer shall be made on separate page in the given format, otherwise the first question entered in the format shall only be considered.

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

Booklet Serial No.

203381

Test Booklet Series

TEST BOOKLET
FISHERIES DEVELOPMENT OFFICER

A

Written Test - 2024

(15)

Time Allowed: Three Hours

Maximum Marks: 120

INSTRUCTIONS

1. IMMEDIATELY AFTER THE COMMENCEMENT OF THE EXAMINATION, YOU SHOULD CHECK THAT THIS TEST BOOKLET **DOES NOT** HAVE ANY UNPRINTED OR TORN OR MISSING PAGES OR ITEMS, ETC. IF SO, GET IT REPLACED BY A COMPLETE TEST BOOKLET.
2. Please note that it is the candidate's responsibility to encode and fill in the Roll Number and Test Booklet Series Code A, B, C or D carefully and without any omission or discrepancy at the appropriate places in the OMR Answer /Response Sheet. Any omission/discrepancy will render the Response Sheet liable for rejection.
3. You have to enter your Roll Number on the Test Booklet in the Box provided alongside.
DO NOT write anything else on the Test Booklet.
4. This Test booklet contains **120** items (questions). Each item comprises of four responses (answers). You will select the response which you want to mark on the Answer Sheet/Response Sheet. In case you feel that there is more than one correct response, mark the response which you consider the best. In any case, choose **ONLY ONE** response for each item.
5. You have to mark all your responses **ONLY** on the separate Answer /Response Sheet provided. See directions in the Response Sheet.
6. **All** items carry equal marks.
7. Before you proceed to mark in the Answer /Response Sheet, the response to various items in the Test Booklet, you have to fill in some particulars in the Answer /Response Sheet as per instructions sent to you with your Admission Certificate.
8. After you have completed filling in all your responses on the Response Sheet and the examination has concluded, you should hand over to the Invigilator **only the Answer /Response Sheet**. You are permitted to take away with you the Test Booklet and **Candidate's Copy of the Response Sheet**.
9. Sheets for rough work are appended in the Test Booklet at the end.
10. While writing Centre, Subject and Roll No. on the top of the Answer Sheet/Response Sheet in appropriate boxes use **"ONLY BALL POINT PEN"**.
11. **Penalty for wrong answers:**
THERE WILL BE PENALTY FOR WRONG ANSWERS MARKED BY THE CANDIDATE IN THE WRITTEN TEST (OBJECTIVE TYPE QUESTIONS PAPERS).
 - (i) There are four alternatives for the answer to every question. For each question for which a wrong answer has been given by the candidate, **(0.25)** of the marks assigned to that question will be deducted as penalty.
 - (ii) If a candidate gives more than one answer, it will be treated as a **wrong answer** even if one of the given answers happens to be correct and there will be same penalty as above for that question.
 - (iii) If a question is left blank, i.e., no answer is given by the candidate, there will be **no penalty** for that question.

DO NOT OPEN THIS TEST BOOKLET UNTIL YOU ARE TOLD TO DO SO

(15) (A)/2024

[P.T.O.]

1. Potential water spread area in Jammu and Kashmir
 - A) 4000 ha
 - B) 40000 ha
 - C) 400000 ha
 - D) None of the above

2. It was Richard A. Ryder, who developed the concept of _____
 - A) Maximum Sustainable Yield
 - B) Morpho Edaphic Index
 - C) Minimum Legal Size
 - D) Food Conversion Ratio

3. The phenomenon of building up of toxicants in the tissues of an animal _____
 - A) Biomagnification
 - B) Bioencapsulation
 - C) Bioremediation
 - D) Biosynthesis

4. European Seabass is
 - A) *Lates calcarifer*
 - B) *Dicentrarchus labrax*
 - C) *Centropristis striata*
 - D) *Sparus aurata*

5. Whale sharks belong to the family
 - A) *Rhincodontidae*
 - B) *Physeteridae*
 - C) *Carcharhinidae*
 - D) *Sphyrnidae*

6. *Dussumieria acuta* is commonly called as
 - A) Indian oil sardine
 - B) Rainbow sardine
 - C) White bait
 - D) White sardine

7. A micro aerophilic food borne Pathogen which leads to abortion in pregnant women is
 - A) *Listeria monocytogenes*
 - B) *Salmonella*
 - C) *Lactobacillus*
 - D) *clostridium botulinum*

8. *Aetobatus narinari* is
- A) Long tailed butterfly ray
 - B) Spotted eagle ray
 - C) Bow mouthed guitar fish
 - D) Cow nosed ray
9. Major fishing season in Jammu and Kashmir is from
- A) June - September
 - B) March - September
 - C) June - January
 - D) None of the above
10. Pick out the fully correct statement.
- A) Ammonia toxicity would be more lethal in high pH
 - B) Ammonia toxicity would be less lethal in high pH.
 - C) Ammonia toxicity would be more lethal in low pH
 - D) Ammonia toxicity doesn't get influenced by pH.
11. For catching fast moving large predatory fishes, _____ is the most commonly used gear
- A) Purse seines
 - B) Trawling
 - C) Trolling
 - D) None of the above
12. What is the major external input for maintaining biofloc microbial communities?
- A) Phosphorous
 - B) Nitrogen
 - C) Carbon
 - D) None of the above
13. Atlantic hag fish is scientifically known as
- A) *Myxine glutinosa*
 - B) *Petromyzon marinus*
 - C) *Hydrolagus colliei*
 - D) *Gymnothorax moringa*
14. The Common carp (*Cyprinus carpio L.*) was introduced in India for aquaculture in the year
- A) 1949
 - B) 1950
 - C) 1959
 - D) 1961

15. Chemical formula of Dolomite used for adjusting the pH/alkalinity in aquaculture pond is .
- A) CaCO_3
 - B) MgCO_3
 - C) $\text{CaMg}(\text{CO}_3)_2$
 - D) Na_2CO_3
16. There are _____ number of nerves associated with most of the fin fish brain.
- A) 12
 - B) 22
 - C) 50
 - D) 100
17. Commonly seen septicemic bacterial disease in salmonids.
- A) Furunculosis
 - B) Lymphocystis
 - C) Infectious dropsy
 - D) Infectious pancreatic necrosis
18. Toxins responsible for Diarrhetic shellfish poisoning is
- A) Okadaic acid
 - B) Dinophysis toxins
 - C) Both A and B
 - D) Neither A nor B
19. The antimicrobial compound, Nisin produced by _____ prevents the lactose fermenting organisms in foods containing lactose.
- A) *Streptococcus faecalis*
 - B) *Lactococcus lactis*
 - C) *Staphylococcus aureus*
 - D) *Lactococcus garvieae*
20. The trout species with the greatest significance in Indian aquaculture is
- A) *Oncorhynchus mykiss*
 - B) *Salvelinus fontinalis*
 - C) *Salvelinus trutta*
 - D) *Oncorhynchus kisutch*

21. There are _____ mysis stages in *Penaeus monodon*
- A) 3
 - B) 4
 - C) 6
 - D) 11
22. The phenomenon with High Nutrient and Low Chlorophyll (HNLC) is seen in _____
- A) Arabian Ocean
 - B) Bay of Bengal
 - C) North Pacific Ocean
 - D) All of the above
23. IPN in fishes is caused by
- A) Bacteria
 - B) Virus
 - C) Parasite
 - D) Fungus
24. The weakest linear relationship is indicated by a correlation coefficient of
- A) 0
 - B) 0.01
 - C) 0.001
 - D) None of the above
25. Hormone primarily responsible for ovulation in fish
- A) GIH
 - B) LH
 - C) MSH
 - D) ACTH

26. The number of NADH molecules generated in citric acid cycle is
- A) 1
 - B) 2
 - C) 3
 - D) None of the above
27. Among the following, _____ is a stress hormone
- A) Oxytocin
 - B) Thyroxine
 - C) Cortisol
 - D) None of the above
28. Cotton like tufts on skin and gills are clinical signs of
- A) White spot
 - B) Saprolegniasis
 - C) Myxobolosis
 - D) Lordosis
29. ELISA is categorised in
- A) Immunoassay
 - B) Cell culture
 - C) Algal culture
 - D) None of the above
30. *Lates calcarifer* is commonly called as
- A) Barramundi
 - B) Greasy grouper
 - C) Spotted sea bass
 - D) Atlantic sea bass

31. The first fish successfully fertilized with cryopreserved spermatozoa.
- A) Milk fish
 - B) Rainbow trout
 - C) Peruvian anchovy
 - D) Atlantic herring
32. 'Kakabans' are commonly used in the breeding of
- A) Shrimps
 - B) Indian major carps
 - C) Common carp
 - D) Trout
33. "Dubisch Method" is related with
- A) Fish processing
 - B) Fish identification
 - C) Fish breeding
 - D) None of the above
34. "Alevin" is connected to
- A) Salmon
 - B) Vannamei
 - C) Shark
 - D) Crab
35. Choose the odd one out
- A) Mood's Median test
 - B) One way ANOVA
 - C) Kruskal-Wallis test
 - D) T-test.
36. The State fish of Jammu and Kashmir is
- A) Copper mahseer
 - B) Golden mahseer
 - C) Red mahseer
 - D) Chocolate mahseer

37. Select the most appropriate choice from the following
- i) Chilika lake is the largest brackish water lake of the country
 - ii) Chilika lake is located in Odisha.
 - iii) Chilika lake is flowing into Bay of Bengal
 - iv) Chilika lake is a fresh water lake
- A) i & ii
B) i & iii
C) i, ii & iii
D) i, ii, iii & iv.
38. 'Pole and line' fishing method is most commonly used in
- A) Kerala
 - B) Lakshadweep.
 - C) Tamil Nadu
 - D) Gujarat
39. Margalef's index identifies
- A) Species conservation
 - B) Species biomass
 - C) Species richness
 - D) Species dependence
40. The largest reservoir in terms of volume in the world is _____
- A) Kariba
 - B) Bratsk
 - C) Boguchany
 - D) None of the above
41. Leather carp is scientifically known as _____
- A) *Cyprinus carpio var. communis*
 - B) *Cyprinus carpio var. nudus*
 - C) *Cyprinus carpio var. specularis*
 - D) None of the above
42. Which country in Asia is accounted for the maximum number of endemic fresh water fin fish species population?
- A) Vietnam
 - B) India
 - C) Indonesia
 - D) Malaysia.

43. Miscellaneous assemblage of organisms growing upon free surface of objects, submerged in water is called as _____
- A) Seston
 - B) Nekton
 - C) Neuston
 - D) Periphyton
44. Arrange the following organizations in chronological order in terms of the year of establishment
- i) CMFRI
 - ii) CIFE
 - iii) CIFNET
 - iv) CIBA
- A) iv, ii, iii, i
 - B) ii, iii, iv, i
 - C) iii, ii, i, iv
 - D) None of the above
45. NREP stands for
- A) National Rural Employment Programme
 - B) National Rural Extension Programme
 - C) National Rural Employees Programme
 - D) National Rural Educational Programme.
46. Calculate the quantity of tea seed cake in tonnes required for prestocking application in a pond with an area of 3 ha and an average depth of 15 cm.
- A) 0.09
 - B) 0.90
 - C) 9.00
 - D) 90.0
47. Mud skippers belong to _____
- A) *Oxudercinae*
 - B) *Channa*
 - C) *Anguilla*
 - D) *Ciprinidae*

48. The fishes which have eyes on dorsal side
- A) Flounder
 - B) Sole
 - C) Both A & B
 - D) None of the above
49. Pearl oysters belong to the family
- A) *Pteriidae*
 - B) *Mytilidae*
 - C) *Nephropidae*
 - D) *Rhynchocinetidae*
50. Larval stage of most groups of molluscs are called as
- A) Nauplius
 - B) Trochophore
 - C) Megalopa
 - D) None of the above
51. Karl Pearson's co-efficient of skewness value lies between
- A) 0 and +1
 - B) -3 and +3
 - C) Both A & B
 - D) None of the above
52. Which organization is responsible for regulating coastal shrimp farming in India
- A) CMFRI
 - B) MPEDA
 - C) CIBA
 - D) CAA
53. Larval stage of lobster
- A) Mysis
 - B) Pluteus
 - C) Veliger
 - D) None of the above

54. *Spirulina* sp. is a _____
- A) Brown algae
 - B) Blue brown algae
 - C) Cyanobacteria
 - D) Bacteria
55. Indian Mackerel belongs to the family
- A) Clupeidae
 - B) Scombridae
 - C) Engraulidae
 - D) Cyprinidae
56. Recommended stocking density of *Penaeus vannamei* in India for commercial culture is
- A) 10/m²
 - B) 20/m²
 - C) 60/m²
 - D) 100/m²
57. Otter boards are used in
- A) Trawls
 - B) Gill nets
 - C) Seines
 - D) All of the above
58. The name Umbo is related to
- A) Fish breeding
 - B) Bivalve breeding
 - C) Shrimp breeding
 - D) Climate change
59. Choose the odd one out
- A) Dhiri
 - B) Kurjar
 - C) Garri
 - D) Amur
60. The common name of seagrass, *Thalassia testudinum*
- A) Eel grass
 - B) Turtle grass
 - C) Tape grass
 - D) Manatee grass

61. Larval form of Ox eye Tarpon
- A) Ammocoete
 - B) Leptocephalus
 - C) Bipinnaria
 - D) Jhatka
62. Reproductive function in fishes is primarily controlled by
- A) Pituitary
 - B) Thyroid
 - C) Adrenal gland
 - D) None of the above
63. GIH hormone involves in
- A) Growth
 - B) Maturation
 - C) Immunity
 - D) Digestion
64. Bile salt is produced in
- A) Liver
 - B) Blood
 - C) Bone marrow
 - D) None of the above
65. Mrigal is a
- A) Column feeder
 - B) Surface feeder
 - C) Bottom feeder
 - D) Macro algal feeder.
66. White spot syndrome virus belongs to the family
- A) Nimaviridae
 - B) Birnaviridae
 - C) Iridoviridae
 - D) None of the above

67. Causative agent of Larval Mycosis is
- A) *Dermocystidium spp*
 - B) *Fusarium spp.*
 - C) *Lagenidium spp.*
 - D) None of the above
68. Which among the following is a warm ocean current.
- A) Kuroshio Current
 - B) Humboldt Current
 - C) Benguela Current
 - D) Canary Current
69. Horseradish peroxidase is a/an
- A) Cleaning agent
 - B) Enzyme
 - C) Antibacterial agent
 - D) Absorbent
70. Which of the following is not an element of the marketing mix
- A) Distribution
 - B) Product
 - C) Target market
 - D) Pricing
71. Latent Heat of fusion of water
- A) 60 kJ/gm
 - B) 100 kJ/gm
 - C) 334 kJ/gm
 - D) 456 kJ/gm
72. Import of Tilapia to India was legally approved in the year of
- A) 2000
 - B) 2001
 - C) 2005
 - D) 2006
73. Stripping is commonly practiced for the fertilization of eggs in
- A) Silver carp
 - B) Pearl spot
 - C) Tilapia
 - D) Angel fish

74. Expand the GIFT
- A) Genetically Improved Farmed Tilapia
 - B) Genetically Induced Farmed Tilapia
 - C) Genetically Improved Female Tilapia
 - D) None of the above
75. Typical Agar-Agar is
- A) 70% agarose and 30% agaropectin
 - B) 30% agaropectin and 70% agarose
 - C) 70% agarose and 30% water
 - D) 70% agarose and 30% starch
76. In general, the particle-size (Microns) in commercial bio floc tanks falls in the range of
- A) 10-20
 - B) 30-60
 - C) 50-200
 - D) 300-800
77. Convention on International Trade in Endangered Species of Wild Fauna and Flora came into force in
- A) 1970
 - B) 1975
 - C) 1980
 - D) 1992
78. Alien mussel species reported from Indian waters
- A) *Mytella strigata*
 - B) *Perna viridis*
 - C) *Perna canaliculus*
 - D) *Lamellidens marginalis*
79. The approx hatching time of common carp at 28°C is estimated as
- A) 6-12 hrs
 - B) 12-24 hrs
 - C) 28-34 hrs
 - D) 48-72 hrs
80. In the presence of Vitamin C, which mineral is absorbed better in fish
- A) Copper
 - B) Iron
 - C) Zinc
 - D) Phosphorus

81. The instrument used for the measurement of the texture of fish

- A) Torry meter
- B) Intelectin Tester
- C) XT plus Texture analyser
- D) Universal Testing Machine

82. DCFR is situated in

- A) Himachal Pradesh
- B) Uttar Pradesh
- C) Uttarakhand
- D) Maharashtra

83. Common name of *Channa striatus* is

- A) Striped snakehead
- B) Walking catfish
- C) Giant snakehead
- D) None of the above

84. Olive barb is

- A) *Puntius filamentosus*
- B) *Horabagrus brachysoa*
- C) *Systomus sarana*
- D) *Barbodes carnaticus*

85. Expand EDTA.

- A) Ethylene diamine tetra acetic acid
- B) Ethylene diamine tetra amino acid
- C) Ethane diamine tetra acetic acid
- D) None of the above.

86. Size grading is to be invariably done during the nursery rearing of
- A) *Lates calcarifer*
 - B) *Chanoschanos*
 - C) *Penaeus monodon*
 - D) *Catlacatla*
87. *Amyloodinium ocellatum* is a _____
- A) Dinoflagellate
 - B) Ciliate
 - C) Virus
 - D) Bacteria
88. Cray fish plague is caused by
- A) Water mold
 - B) Cyanobacteria
 - C) Virus
 - D) Nematode
89. The nutrient, essential for the development of external shell of diatoms
- A) Chloride
 - B) Silicates
 - C) Nitrates
 - D) Fluorides
90. _____ is considered as the father of Limnology
- A) J.R. Lorenz
 - B) V.Hensen
 - C) F.Simony
 - D) F.A.Forel

91. Which monogenean parasite causes gill disease in carps?
- A) Dactylogyrus
 - B) Capsalidae
 - C) Ancyrocephalidae
 - D) None of the above
92. The Code of Conduct for Responsible Fisheries (CCRF) was adopted unanimously by the FAO Conference in the year.
- A) 1980
 - B) 1986
 - C) 1994
 - D) 1995
93. ISO standards which specify the need for food safety management system.
- A) ISO9000 Series
 - B) ISO11000 Series
 - C) ISO14000 Series
 - D) ISO22000 Series
94. The reservoirs with the size of more than 5000 ha are classified as _____ in India
- A) Micro
 - B) Small
 - C) Medium
 - D) None of the above
95. Accepted level of TVBN in fresh fish muscle is
- A) 10-15 mg N/100 gm
 - B) 20-25 mg N/100 gm
 - C) 35-40 mg N/100 gm
 - D) 50-90 mg N/100 gm
96. The compound which is responsible for fishy odour of fish
- A) TMA
 - B) TMAO
 - C) Hypoxanthine
 - D) IMP

97. The D value of an organism iswhen the temperature is high
A) Lower
B) Fluctuated
C) Higher
D) Not affected
98. Among the so far published data which fish has the largest genome
A) Whale shark
B) Coelacanth
C) Lung Fish
D) Japanese eel
99. The concept of State fish has been implemented as part of
A) National integration
B) Fish conservation
C) Regional symbols
D) None of the above
100. The mature ova of silver carp is _____ in colour
A) White
B) Golden Yellow
C) Pale blue
D) None of the above
101. In which year, the first trout hatchery in India was established
A) 1899-1900
B) 1900-1901
C) 1905-1906
D) 1909-1910
102. The number of barbels in *Tachysuridae*
A) 1 pair
B) 2 pairs
C) 3 pairs
D) 4 pairs
103. Tapti estuary is present in
A) Kerala
B) Maharashtra
C) Gujarat
D) West Bengal

104. The "trawl ban" was commenced in Kerala in the year
- A) 1972
 - B) 1978
 - C) 1988
 - D) 1994
105. Which of the following is true
- A) Haemocyanin is a copper containing pigment which is colourless in oxygenated condition.
 - B) Haemocyanin is a copper containing pigment which is bluish red in deoxygenated condition.
 - C) Haemocyanin is a copper containing pigment which is blue in deoxygenated condition.
 - D) Haemocyanin is a copper containing pigment which is blue in oxygenated condition.
106. High quality fish meal available in Indian market contains approximately _____% of protein
- A) 20-30
 - B) 40-50
 - C) 60-70
 - D) None of the above
107. Which enzyme is responsible for catalysing the process of transcription
- A) DNA polymerase
 - B) RNA polymerase
 - C) Helicase
 - D) Ligase
108. The signalling protein produced by cell on viral infection
- A) Cytokines
 - B) Interferons
 - C) Chemokines
 - D) Interleukins
109. Optimum temperature for the growth of Psychrophiles....°C
- A) 15
 - B) 20
 - C) 25
 - D) 30

110. In moist heat sterilization, microorganisms are killed by _____
- A) Oxidation
 - B) Coagulation
 - C) Agglutination
 - D) Adsorption
111. What toxin is of concern with HABs?
- A) Microcystin
 - B) Mycotoxin
 - C) Aflatoxin
 - D) Citrinin
112. The most effective gear for harvesting ribbon fishes in India is _____
- A) Purse seines
 - B) Gill nets
 - C) Trawl nets
 - D) Hook and lines
113. Tilapia Lake Virus belongs to the family
- A) Orthomyxoviridae
 - B) Paramyxoviridae
 - C) Amnoonviridae
 - D) None of the above
114. Which sub targets of SDG 14 (life below water) is related to sustainable fishing?
- A) SDG 14.1
 - B) SDG 14.2
 - C) SDG 14.3
 - D) SDG 14.4
115. A taxon of fish is considered as Critically Endangered (CR) when its population is estimated to less than _____ mature individuals
- A) 50
 - B) 150
 - C) 250
 - D) 550

116. Which among the following is the mode of action of probiotics in fish
- A) Competitive exclusion
 - B) Production of inhibitory substances.
 - C) Competition for nutrients
 - D) All of the above
117. Name the brown algae which has been recently emerged as an ecological threat in the Caribbean Islands
- A) Kelp
 - B) Sargassum
 - C) Rock weeds
 - D) Sea grass
118. The family to which the sardines and its relatives are recently shifted to
- A) Denticipitidae
 - B) Pristigasteridae
 - C) Dorosomatidae
 - D) Sardinellidae
119. Where was the first trout hatchery established in India?
- A) Harwan
 - B) Nainital
 - C) Chamba
 - D) Kulu
120. Total financial out lay of PMMSY Project in India is
- A) Rs.1000 crores
 - B) Rs.2500 crores
 - C) Rs.10050 crores
 - D) Rs.20050 crores.

ROUGH WORK

(15) (A)

(23)

[P.T.O.]

