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ROLL No.

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QN. BOOKLET No.

015

TEST FOR POST GRADUATE PROGRAMMES

FISHERIES

Time: 2 Hours

Maximum Marks: 450

**INSTRUCTIONS TO CANDIDATES**

1. You are provided with a Question Booklet and an Optical Mark Reader (OMR) Answer Sheet to mark your responses. Do not soil your OMR Sheet. Read carefully all the instructions given on the OMR Sheet.
2. Write your Roll Number in the space provided on the top of this page.
3. Also write your Roll Number, Test Code, Test Centre Code, Test Centre Name, Test Subject and the date and time of the examination in the columns provided for the same on the Answer Sheet. Darken the appropriate bubbles with HB pencil.
4. The paper consists of 150 objective type questions. All questions carry equal marks.
5. Each Question has four alternative responses marked A, B, C and D and you have to darken the bubble fully by HB pencil corresponding to the correct response as indicated in the example shown on the Answer Sheet. Also write the alphabet of your response with ball pen in the starred column against attempted questions and put an 'x' mark by ball pen in the starred column against unstamped questions as given in the example in the OMR Sheet.
6. Each correct answer carries 3 marks and each wrong answer carries 1 minus mark.
7. Please do your rough work only on the space provided for it at the end of this question booklet.
8. You should return the Answer Sheet to the Invigilator before you leave the examination hall. However Question Booklet may be retained with the Candidate.
9. Every precaution has been taken to avoid errors in the Question Booklet. In the event of such unforeseen happenings, suitable remedial measures will be taken at the time of evaluation.
10. Please feel comfortable and relaxed. You can do better in this test in a tension-free disposition.

**WISH YOU A SUCCESSFUL PERFORMANCE**

SEAL



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## FISHERIES

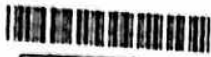
1. The following fish is an example for exotic fish
  - (A) Catla
  - (B) Rohu
  - (C) Mrigal
  - (D) Tilapia
  
2. *Aristichthys nobilis* is called
  - (A) Pipe fish
  - (B) Silver carp
  - (C) Grass carp
  - (D) Common carp
  
3. *Pristis cuspidatus* is commonly called as
  - (A) Bill fish
  - (B) Saw fish
  - (C) Half beak
  - (D) Guitar fish
  
4. Lung fishes belong to class of
  - (A) Holocephali
  - (B) Teleostomi
  - (C) Dipnoi
  - (D) Acanthodii
  
5. Example to living fossil
  - (A) Coelacanthus
  - (B) Pleurocanthus
  - (C) Pterichthys
  - (D) Bothriolepis
  
6. A layer, in which there is rapid decrease of temperature with depth, is called
  - (A) thermocline
  - (B) thermodecline
  - (C) thermoline
  - (D) thermophile
  
7. Scientific name of Bombay duck is
  - (A) *Harpodon nehereus*
  - (B) *Hilsa ilisha*
  - (C) *Notopterus chitala*
  - (D) None of the above
  
8. Ray finned fishes are placed in sub class of
  - (A) Acanthopterygii
  - (B) Actinopterygii
  - (C) Sarcopterygii
  - (D) None of the above



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9. Example to hillstream fish
- (A) *Oxygaster* (B) *Esomus*  
(C) *Tor-tor* (D) *Schizothorax*
10. Who led the most celebrated oceanographic expedition, the voyage of the 'Challenger'?
- (A) C.W. Thomson (B) J. Armstrong  
(C) M.F. Maury (D) Edward Forbes
11. Indian salmon is
- (A) *Eleutheronema* (B) *Rastrelliger*  
(C) *Sardinella* (D) None of the above
12. Bech-de-mer is prepared from
- (A) sea star (B) sea horse  
(C) sea cucumber (D) sea lily
13. The following is known as blood clam
- (A) *Anadara* (B) *Donax*  
(C) *Paphia* (D) *Katelysia*
14. The trade name 'scampi' is given to
- (A) *Macrobrachium rosenbergii* (B) *M. malacomsoni*  
(C) *M. idae* (D) *M. lamarri*
15. Brown Mussel is
- (A) *Perna viridis* (B) *P.indicus*  
(C) *M. edulis* (D) *M. smaragdinus*
16. CMFRI was established in
- (A) 1947 (B) 1950  
(C) 1967 (D) 1945



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17. Cephalopod popularly known as devil fish is
- (A) *Sepia* (B) *Octopus*  
(C) *Loligo* (D) *Nautilus*
18. *Mastacembalus armatus* is known as
- (A) spiny-eel (B) marine eel  
(C) brakish water eel (D) None of the above
19. Japanese fugu fish is
- (A) *Mola- mola* (B) *Tetradon*  
(C) *Balistis* (D) *Therapon*
20. The scales of shark are
- (A) ganoid (B) cycloid  
(C) placoid (D) ctenoid
21. The mirror cells in the skin of fishes are
- (A) erythrophores (B) melanophores  
(C) xanthophores (D) iridocytes
22. The cadual fin of shark is
- (A) homocercal (B) hypocercal  
(C) heterocercal (D) protocercal
23. Ocean Acoustic Tomography (OAT) is extensively used in
- (A) ocean depth studies (B) ocean current studies  
(C) ocean salinity studies (D) ocean sound studies
24. The color changes in fishes is under the control of
- (A) nervous system (B) circulatory system  
(C) enzymes (D) None of the above
25. Example to deep sea fish
- (A) *Ambasis* (B) *Antennarius*  
(C) *Arius* (D) *Barracuda*



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26. The appendicular skeleton in fishes is the skeleton of
- (A) vertebral column (B) cranial skeleton  
(C) pectoral and pelvic girdle (D) skeleton of ribs
27. Example to carnivorous fish
- (A) *Cirrhinus mrigala* (B) *Wallago attu*  
(C) *Labeo rohita* (D) *Catla catla*
28. The blooming of which of the following diatom in the Arabian Sea is an indicator of the abundance of *Sardinella* sp.
- (A) Noctiluca (B) Navicula  
(C) Fragilaria (D) Miliolina
29. Accessory air breathing organs in *Clarius batrachus* are
- (A) skin cells (B) dendritic organs  
(C) air balder (D) None of the above
30. The organisms inhabiting the bottom of the sea constitute
- (A) the Abyss (B) the Benthos  
(C) the Planktons (D) the Nektons
31. The slime of fishes contains
- (A) carbohydrates (B) lipids  
(C) proteins (D) None of the above
32. Indo-Norwegian Project vessels have explored and demonstrated the feasibility of fishing in
- (A) coastal waters (B) deep-sea waters  
(C) gulfs (D) bays
33. The common name for the members of Fam. Leiognathidae, is
- (A) Ghols (B) Silverbellies  
(C) Bombay Duck (D) Tuna



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34. Young eel is called
- (A) yellow eel (B) silver eel  
(C) *Leptocephalus* (D) elver
35. The salt discharging cells in marine teleosts are known as
- (A) pink cells (B) blue cells  
(C) white cells (D) chloride cells
36. The GSI in fishes increases with
- (A) age (B) maturation  
(C) season (D) temperature
37. Shrimps are caught by using
- (A) pelagic trawl (B) bottom trawl  
(C) purse seine (D) traps
38. Protracted spawning means
- (A) short spawning (B) no spawning  
(C) extended spawning (D) hermaphroditism
39. Bubble nest is prepared by male among which of the following?
- (A) Butter fish (B) Bitterling  
(C) Betta (D) Cat fish
40. The trematode parasite attacking fishes is
- (A) *Ligula* (B) *Philometra*  
(C) *Camallanus* (D) *Bucephalus*
41. Blood sucking parasitic copepod on fish is
- (A) *Calanoid* (B) *Cyclopoid*  
(C) *Caligoid* (D) *Harpacticoid*
42. Dropsy in fishes is caused by
- (A) bacteria (B) fungus  
(C) protozoan (D) virus



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43. Air bladders of fishes are used in the preparation of
- (A) fish glue (B) isinglass  
(C) fish meal (D) fish oil
44. FAO stands for
- (A) Fisheries of Arabian Ocean  
(B) Fish and Agriculture Organisation  
(C) Food and Agriculture Organisation  
(D) Fisheries and Agriculture Organisation
45. *Chanos Chanos* is commonly called as
- (A) magur (B) milk fish  
(C) mullet (D) bhekti
46. Example for larvivorous fish is
- (A) *Aplocheilus* (B) *Ailia*  
(C) *Silonia* (D) None of the above
47. Fish, yielding body oil is
- (A) *S.fimbriata* (B) *S.longiceps*  
(C) *S.gibbosa* (D) *Serranus*
48. The 'Fish Wars' are the
- (A) conflicts between fishes  
(B) conflicts between sharks  
(C) conflicts among fishermen  
(D) conflicts among fish and man
49. Heteropneustes is caught by using
- (A) fish screens (B) fish traps  
(C) dipnet (D) cast net
50. Rain bow sardine is
- (A) *Dussumiera acuta* (B) *Stoleporus commensoni*  
(C) *S. indicus* (D) None of the above

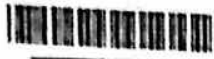


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51. Potamogeton is a
- (A) marginal weed (B) submerged weed  
(C) floating weed (D) emergent weed
52. Example to blue green algae is
- (A) *Spyrogyra* (B) *Peridinium*  
(C) *Biddulphia* (D) None of the above
53. Ideal pH level for fish ponds is
- (A) 4-5 (B) 7-8  
(C) 8-9 (D) None of the above
54. International convention on Biodiversity Conservation was held at
- (A) Washington in Dec. 1992 (B) Rio in Dec. 1992  
(C) London in Dec. 1982 (D) Paris in Dec. 1982
55. Fresh water fish seed is collected from rivers using
- (A) cast net (B) traps  
(C) dipnet (D) shooting net
56. *Wallago attu* is a
- (A) predatory fish (B) weed fish  
(C) larvivorous fish (D) herbivorous fish
57. The First Marine National Park came into existence at
- (A) Gulf of Mannar (B) South Andaman  
(C) Gulf of Kutch (D) Lakshadweep Islands
58. Fish and duck farming is known as
- (A) mixed culture (B) poly culture  
(C) integrated culture (D) None of the above
59. Which fish oil is used as a preservative for boats against weathering?
- (A) Shark liver (B) Ray liver  
(C) Sardines (D) Tunas





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60. *Tor putitora* is known as
- (A) Trout (B) Tench  
(C) Mahseer (D) Snow trout
61. *Etrophus suratensis* is called as
- (A) Chanda (B) Goby  
(C) Pearl spot (D) Barā mundi
62. Harpadon is commonly called as
- (A) Harpoon (B) Hilsa  
(C) Bombay Duck (D) Horse Mackerel
63. Torpedo is the name of a
- (A) shark (B) eagle ray  
(C) manta ray (D) electric ray
64. *Syngnathus* is commonly known as
- (A) sea horse (B) pipe fish  
(C) cat fish (D) cyprinid fish
65. Siamese fighting fish is
- (A) Bowfin (B) Bitterling  
(C) Betta (D) Butter fish
66. The tiger shark belongs to genus
- (A) *Scoliodon* (B) *Carcharhinus*  
(C) *Sphyrna* (D) *Stegostoma*
67. Poison glands are present in fish
- (A) *Trachinus* (B) *Megalops*  
(C) *Therpon* (D) None of the above
68. *Rita rita* is an example for
- (A) flying fish (B) eel fish  
(C) cat fish (D) goat fish



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69. Diurnal vertical migration is seen in
- (A) formanifera (B) radiolarians  
(C) fish eggs (D) copepods
70. Red water blooms in sea are caused by
- (A) diatoms (B) dinoflagellates  
(C) blue green algae (D) desmids
71. 'The Mackerel' belongs to genus
- (A) Kowala (B) Caranx  
(C) Rastrelliger (D) Scomberomorus
72. Remora is known as
- (A) Porcupine fish (B) Sun fish  
(C) Trunk fish (D) Sucker fish
73. *Turbinella pyrum* is a
- (A) clam (B) mussel  
(C) oyster (D) chank
74. Both the eyes come to lie on the left side in the adults of
- (A) *Pampus* (B) *Otolithiodes*  
(C) *Cynoglossus* (D) *Kowala*
75. Which among the following fishes are called as Jew fishes?
- (A) Carangids (B) Serranids  
(C) Scianoids (D) Soles
76. The common name of *Acipensar* is
- (A) Salmon (B) Sardine  
(C) Sturgeon (D) Sole fish
77. Adhesive organ is present on ventral side of body in
- (A) hill stream fishes (B) riverine fish  
(C) brackish water fishes (D) marine fishes



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78. The ampullae of Lorenzini in sharks are
- (A) temperature receptors (B) pressure receptors  
(C) sensory receptors (D) light receptors
79. *Nepa* is known as
- (A) Back swimmer (B) Giant water bug  
(C) Water scorpion (D) Dragon fly larvae
80. Cage culture was originated in
- (A) China (B) Norway  
(C) Japan (D) Kampuchia
81. Submersible type of cages are frequently used in Japan for the culture of
- (A) *Seriola* sp. (B) Trouts  
(C) Carps (D) *Etroplus* sp
82. A system adopted to keep the cages in desired position is called
- (A) Collar (B) Mooring  
(C) Free Board (D) Walkway
83. *Tinka tinka* is commonly known as
- (A) Mahseer (B) Hill trout  
(C) Snow trout (D) Tench
84. *Azolla* is an example for
- (A) marginal plant (B) floating plant  
(C) submerged plant (D) emergent plant
85. Fishing nets are disinfected by using dilute solution of
- (A)  $\text{CuSO}_4$  (B)  $\text{KMnO}_4$   
(C)  $\text{Ca(OH)}_2$  (D)  $\text{NaOH}$
86. *Ctenopharyngodon idella* is commonly called as
- (A) major carp (B) minor carp  
(C) common carp (D) grass carp



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87. The birds that control weeds in the fish ponds are
- (A) Cormorants (B) Herons  
(C) Ducks (D) Vultures
88. *Carassius carassius* is commonly known as
- (A) Silver carp (B) Golden carp  
(C) mirror carp (D) common carp
89. Soil suitable for pond construction is
- (A) sandy soil (B) clayey soil  
(C) muddy soil (D) loamy soil
90. A structure, which normally supports and buoys the cage bag and to help retain its shape; is called
- (A) collar (B) nail  
(C) frame (D) free board
91. Fresh water brood fishes are narcotized by using
- (A) cocaine (B) quinaldine  
(C) methanol (D) nicotine
92. In fishes fecundity is influenced by
- (A) Oxygen (B) pH  
(C) photoperiod (D) turbidity
93. *Labeo bata* grows to a maximum length of
- (A) 30 cm (B) 40 cm  
(C) 50 cm (D) 60 cm
94. Earthen vessels used in transportation of carp seed are known as
- (A) pans (B) hundies  
(C) hapas (D) None of the above



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95. The commonly used inorganic fertilizer in a fish pond is
- (A) ammonium carbonate                      (B) ammonium nitrate  
(C) ammonium sulfate                        (D) ammonium phosphate
96. Antibiotic bath given to fishes before transport contains the chemical
- (A) potassium permanganate                (B) calcium carbonate  
(C) sodium nitrate                            (D) potassium hydroxide
97. Enclosures formed by damming a bay or fjord are called
- (A) pans    (B) pens  
(C) pons    (D) panes
98. Murrel is the common name for
- (A) *Mugil*                                        (B) *Channa*  
(C) *Mystus*                                      (D) *Chanos*
99. Fishes tolerant to wide range of salinity are called
- (A) stenohaline                                (B) stenothermic  
(C) eurythermic                                (D) euryhaline
100. Example for weed fishes
- (A) *Esoinus*                                      (B) *Channa*  
(C) *Mystus*                                      (D) *Notopterus*
101. Bacterium which commonly causes disease in fishes is
- (A) *Nitrosomonas*                              (B) *Aeromonas*  
(C) *Staphylococcus*                            (D) *Streptococcus*
102. Alkalosis in ponds is caused by excessive
- (A) Crowding                                    (B) Zooplanton  
(C) Plant growth                                (D) Parasites
103. *Clarius batrachus* is commonly called as
- (A) magur                                        (B) murrel  
(C) mullet                                        (D) milk fish



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104. Example for ornamental fish is
- (A) singhi (B) sword tail  
(C) trout (D) tench
105. The fish cultured in coastal cages is
- (A) *Lates calcalifer* (B) *Clarius batrachus*  
(C) *Tilapia mossambica* (D) *Rastrelliger kanagurta*
106. *Salmo gairdineri gairdineri* is known as
- (A) brown trout (B) rain bow trout  
(C) pink salmon (D) None of the above
107. Monoculture of male is followed in the following fish
- (A) *Channa* (B) *Wallago*  
(C) *Tilapia* (D) *Labeo*
108. 'Red Tide' is caused by
- (A) red mullets (B) dinoflagellates  
(C) red algae (D) *Ectocarpus* sp.
109. 'Costless Fertilizer factories moving on hooves' is the phrase used for
- (A) goats (B) pigs  
(C) cattle (D) sheep
110. If the pond water is muddy it is made clear by the application of
- (A) epsom salt (B) gypsum salt  
(C) blue vitriol (D) green vitriol
111. Pituitary glands of fishes are dehydrated by using
- (A) Acetone (B) Glycerine  
(C) Alcohol (D) Xylene
112. Eggs of common carp are
- (A) floating (B) adhesive  
(C) non-adhesive (D) None of the above



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113. Ovaprin is injected into adult fish for
- (A) maturation (B) sex reversal  
(C) induced breeding (D) increasing size
114. Fringe lipped carp is
- (A) *L. kontius* (B) *L. bata*  
(C) *L. frimbriatus* (D) *L. calabasu*.
115. Where are the Fry raised to Fingerlings?
- (A) hatcheries (B) nurseries  
(C) rearing Ponds (D) stocking ponds
116. Ammonia concentration at this level is toxic to fish
- (A) 0.05 mg/l (B) 0.5mg/l  
(C) 1.5mg/l (D) 2.5mg/l
117. Example to live bearing ornamental fish is
- (A) gold fish (B) oranda  
(C) molly (D) calico
118. 'Parallel Ponds' constitute the
- (A) barrage ponds (B) diversion ponds  
(C) paddy ponds (D) sewage-fed ponds
119. Lobster larva is known as
- (A) Alima (B) Leptocephalus  
(C) Phyllosoma (D) Megalopa
120. 'SECCHI DISC' is used to measure
- (A) Transparency (B) Hydrogen-ion-concentration  
(C) Alkalinity (D) Hardness
121. PL 15 means
- (A) 15minutes old post larvae (B) 15 hours old post larva  
(C) 15 days old post larvae (D) None of the above



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122. Cannibalism is seen in
- (A) seerfishes (B) echinoderms  
(C) oysters (D) crabs
123. Fish cultured in sewage fed farms are
- (A) carps (B) eels  
(C) catfish (D) hilsa
124. "Gas bubbles" disease in fishes is caused by excessive levels of
- (A) Oxygen (B) Carbon dioxide  
(C) Nitrogen (D) Helium
125. Black lipped pearl oyster is
- (A) *Pinctada fucata* (B) *P. margaretfifera*  
(C) *P. maxima* (D) *P. sugillata*
126. The animals which are relatively large and powerful, and can combat water currents, are called
- (A) neuston (B) nektons  
(C) planktons (D) swimmers
127. Alima larva is the larva of
- (A) mantis shrimp (B) marine shrimp  
(C) lobster (D) crab
128. Fish samples are compared by using statistical test
- (A) F-Test (B) Histogram  
(C) T-Test (D) Standard deviation
129. "Shagreen" is prepared from
- (A) crocodile skin (B) sea snake skin  
(C) shark skin (D) None of these





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130. E E Z of India extends up to
- (A) 12n-miles (B) 200 km  
(C) 200 n-miles (D) 20n-miles
131. Diatoms belong to
- (A) Xanthophyceae (B) Myxophyceae  
(C) Bacillariophyceae (D) Dinophyceae
132. Common name of *Pampus argenteus* is
- (A) silver pomfret (B) red pomfret  
(C) black pomfret (D) brown pomfret
133. White spot disease in fish is caused due to
- (A) viral infection (B) bacterial infection  
(C) protozoan infection (D) metazoan infection
134. *Argulus* is a
- (A) protozoan parasite of fish (B) cestode parasite of fish  
(C) copepod parasite of fish (D) fungal infection in fish
135. Gonadosomatic index of fish can be calculated by using the formula
- (A)  $\frac{\text{Wt. of gonads}}{\text{Wt. of fish}} \times 100$  (B)  $\frac{\text{Wt. of fish}}{\text{Wt. of gonads}} \times 100$   
(C)  $\frac{\text{Length of fish}}{\text{Wt. of gonads}}$  (D)  $\frac{\text{Length of gonads}}{\text{Wt. of fish}}$
136. To hold the water at a definite level in a pond and also to serve as a causeway, it is essential to construct a
- (A) spillway (B) monk  
(C) sluice (D) dike



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137. Whose experiments advocated the use of 'pituitary injections' in the spawning of fishes?
- (A) Atz and Pickford (B) Evans  
(C) Houssay (D) Hoar
138. Common name of *Tetrodon* is
- (A) porcupine fish (B) puffer fish  
(C) gaint fish (D) None of the above
139. Scientific name of African lung fish
- (A) *Protopterus* (B) *Lepidosiren*  
(C) *Arius* (D) *Syngnathus*
140. The following is an example for exotic larvivorous fish
- (A) *Puntius ticto* (B) *Notopterus notopterus*  
(C) *Labeo rohita* (D) *Gambusia affinis*
141. Wet bundhs can also be called as
- (A) perennial bundh (B) seasonal bundh  
(C) closed bundh (D) None of the above
142. Pituitary Gland extracts are injected to induce
- (A) ovulation (B) gonadal development  
(C) sex play (D) secretion of sex hormones
143. The following groups of fishes breed only in running fresh water
- (A) major carps (B) minor carps  
(C) mirror carps (D) None of the above
144. 'Egg collectors' are provided in the 'breeding hapa' for breeding of
- (A) common carp (B) major carp  
(C) grass carp (D) silver carp



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145. Which of the following fish is an example for Oceanodromous migration?
- (A) salmon (B) hilsa  
(C) anguilla (D) tunas
146. The best time of releasing the brood fishes in the 'hapa' is in the
- (A) morning (B) evening  
(C) noon (D) night
147. Forked caudal fin is observed in
- (A) tuna (B) etroplus  
(C) flounder (D) anabas'
148. When introducing exotic species, the species should
- (A) not compete with native species  
(B) not cross with native species  
(C) not carry any disease  
(D) All of the above
149. 'Pokkali' refers to
- (A) a rice field in Kerala  
(B) a fish cultivated in rice fields of Kerala  
(C) a salinity resistant rice variety cultivated in Kerala  
(D) a tribe which cultivates rice in Kerala
150. Gonadotropins are the products of
- (A) hypothalamus (B) gonads  
(C) pituitary (D) synthetic analogues

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