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**E-1018****M. Sc. (Fourth Semester) (Main/ATKT)****EXAMINATION, May-June, 2021**

ZOOLOGY

**(Optional Group—A)**

Paper Fourth

**[Pisciculture and Economic Importance of Fishes****(Ichthyology)]***Time : Three Hours ]**[ Maximum Marks : 80***Note :** Attempt all Sections as directed.**Section—A**

1 each

**(Objective/Multiple Choice Questions)****Note :** Attempt all questions.

Choose the correct answer :

1. Which of the following is not a method of fish preservation ?

- (a) Chilling
- (b) Baking
- (c) Canning
- (d) Salting

2. Which of the following is a surface feeder ?

- (a) *Catla catla*
- (b) *Labio rohita*
- (c) Magur
- (d) Flying fish

3. Which of the following products of fishes is used for clearing wines ?

- (a) Shagreen
- (b) Isinglass
- (c) Fish flour
- (d) Fish oil

4. Practice of catching the fish only available naturally is known as :

- (a) Monoculture
- (b) Capture fisheries
- (c) Polyculture
- (d) Culture fisheries

5. The management and rearing of aquatic animals is called as :

- (a) Pisciculture
- (b) Sericulture
- (c) Aquaculture
- (d) Fisheries

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6. Which of the following is the characteristic feature of shell fisheries ?
- (a) Rearing of fishes
  - (b) Rearing of only bony fishes
  - (c) Rearing of aquatic animals having an outer shell
  - (d) Rearing of cartilaginous fishes
7. The largest estuaries ecosystem in India is :
- (a) Hooghly-Matlah
  - (b) Mahanadi
  - (c) Godavari
  - (d) Narmada
8. Demersal fish is :
- (a) Flat fish
  - (b) Tuna
  - (c) Anchovy
  - (d) Bombay duck
9. Which aqua farming technology is most suitable for rural area ?
- (a) Cage culture
  - (b) Pen culture
  - (c) Integrated fish farming
  - (d) None of the above

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10. The omega 3 fatty acid is :
- (a) Palmitic acid
  - (b) Linolenic acid
  - (c) Stearic acid
  - (d) Oleic acid
11. Which causes luminescent disease ?
- (a) Virus
  - (b) Protozoa
  - (c) Bacteria
  - (d) Fungi
12. Scientific name of pearl spot is :
- (a) *Etroplus suratensis*
  - (b) *Chanos chanos*
  - (c) *Sardnella longicep*
  - (d) None of the above
13. Chitin and chitosan is prepared from :
- (a) Fish waste
  - (b) Crustacean shell
  - (c) Fish scale
  - (d) Molluscan shell

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14. Torrymeter is used to check :
- (a) Nucleotide
  - (b) Fish smell
  - (c) Fish rigor
  - (d) Fish freshness
15. In large reservoir which gear is widely used to capture carps and catfishes ?
- (a) Drag net
  - (b) East net
  - (c) Gill net
  - (d) Bag net
16. Common external parasite flukes or trematodes in carps and trouts is :
- (a) *Gyrodactylus elegans*
  - (b) *Castia necatrix*
  - (c) Anchor worm
  - (d) Piscicoda
17. Which of the following is not an edible marine fish ?
- (a) *Salmon*
  - (b) *Labeo rohita*
  - (c) *Mackral*
  - (d) *Sardinella*

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18. Which one is odd fish among all :
- (a) *Anguilla*
  - (b) *Labeo rohita*
  - (c) *Mystis singhala*
  - (d) *Wallago attu*
19. Which of the following is not the economic importance of fishes ?
- (a) Source of food
  - (b) Source of water
  - (c) Good source of vitamins
  - (d) Polishing agent
20. Disease in fishes caused by crustacean parasite is called :
- (a) Liqulosis
  - (b) Dactgrogryrus
  - (c) Argulosis
  - (d) Gyrodactylus

**Section—B**

2 each

**(Very Short Answer Type Questions)**

**Note :** Attempt all questions. Write answer in *two-three* sentences.

1. Write only names of different types of bundles used for induced breeding.

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2. Write objectives of fish culture.
3. Define various ways of sewage treatment.
4. Define inshore fisheries.
5. Give the zoological name of (i) tiger prawn (ii) white prawn.
6. Describe pin heads diseases.
7. Write name of *two* species of snails who helped in control of aquatic weeds.
8. Describe gill net.

**Section—C**

3 each

**(Short Answer Type Questions)**

**Note :** Attempt all questions.

1. Describe artificial feeding.
2. Describe exotic fishes with suitable example.
3. Describe prawn-carp culture.
4. Explain riverine fisheries.
5. Describe various estuaries in India.
6. Explain physical conditions of deep sea.
7. What is fish manure ?
8. Describe major issues regarding fish marketing in India.

**Section—D**

5 each

**(Long Answer Type Questions)**

**Note :** Attempt all questions. Answer each question in 300-350 words.

1. Describe various types of ponds used for freshwater fish culture.

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*Or*

Write a note on transportation of fish seed.

2. Describe composite fish culture with suitable example.

*Or*

Describe pearl industries in India.

3. Describe the role of fisheries in rural development.

*Or*

Explain deep sea fisheries with suitable example.

4. Write an essay on fish disease.

*Or*

Explain economic importance of fish byproducts.

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