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M.Sc. (Semester-II) Examination, July 2022

ZOOLOGY

(Fish Biology - Aquaculture)

Time Allowed : Three Hours

Maximum Marks : 70

Minimum Passing Marks : 25

Note : Question paper is divided into four Units. Attempt questions from all Units as per given directions. Distribution of marks is given in each Unit.

UNIT-I

1.(A) Multiple choice type questions. **(Any five)** [1×5=5]

(i) National Fisheries Development Board is located in _____

(a) Hyderabad

(b) Goa

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(1)

[P.T.O.]

- (c) Mumbai
 - (d) Chennai
- (ii) What are the common fishes selected for pond culture systems ?
- (a) Sharks and rays
 - (b) Sardines and mackerels
 - (c) Mulllets, bhetki and pearl spots
 - (d) Catlas, rohu, mrigals, common carps and grass carps
- (iii) _____ is the term used for breeding of fish in specially constructed tanks and ponds.
- (a) Viticulture
 - (b) Agriculture
 - (c) Horticulture
 - (d) Pisciculture

(iv) Common carp, Silver carp and Grass carp are varieties of _____ commonly found in Madhya Pradesh.

- (a) Fish
- (b) Rice
- (c) Oranges
- (d) Pulses

(v) 'Blue Revolution' is related with the following :

- (a) Foodgrain production
- (b) Oilseed production
- (c) Fish production
- (d) Milk production

(vi) Which of the following fish/fishes used for fish culture in paddy fields ?

- (a) Catla only
- (b) Rohu only
- (c) Mrigal and Catla only
- (d) All of the above

(B) Fill in the blanks : **(Any five)** [1x5=5]

- (i) The state with leading production of inland fishes is _____.
- (ii) _____ harbour in Kerela is the largest fishing harbour in Asia.
- (iii) _____ is the common name used for the genera Tor.
- (iv) Chinese dip nets are most common in _____.
- (v) The most efficient gear used for exploiting the pelagic fishery resources along Karnataka coast is _____.
- (vi) The national fish of India is _____.

UNIT - II

(Very Short Answer Type Questions)

2. Attempt **any ten** questions : [2x10=20]

- (i) Define Exclusive Economic Zone (EEZ).
- (ii) Define induced breeding.

- (iii) Define inland fisheries.
- (iv) What are placoid scales ? Where are placoid scales present ?
- (v) What is monosex culture ?
- (vi) What are exotic fishes ?
- (vii) Name two diseases in carp variety of fishes.
- (viii) What is integrated farming ?
- (ix) What is cage fishery ?
- (x) Define pen fishery.
- (xi) Define bundh breeding.
- (xii) What is meant by hypernitrification ?

UNIT - III

(Short Answer Type Questions)

3. Attempt **any five** questions : [4×5=20]

- (i) Fish food organisms.
- (ii) Paddy-cum-fish farming.

- (iii) Role of probiotics in nutrition.
- (iv) Use of attractants and growth stimulants in fish feeds.
- (v) Impact of GMOs on aquatic biodiversity.
- (vi) Fish Pathogens.
- (vii) Fish feed types and purposes.

UNIT - IV

(Essay Type Questions)

4. Attempt **any two** questions. [2×10=20]
- (i) Explain the process of setting up of display aquarium. Explain the process of breeding of aquarium fishes. [5+5=10]
 - (ii) Explain the different infection and diseases in fishes. Write a note on common routes of pathogen entry in fishes. [7+3=10]

- (iii) Discuss in detail about fish seed technology. [10]
- (iv) Explain the water quality requirements for aquaculture in detail. Write a short note on Chemical Oxygen Demand. [6+4=10]

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