

S-810

Roll No. ....

## **ZO–554(B)**

### **Applied Aquaculture**

M. Sc. Zoology

(MSCZO-12)

Second Year, Examination, 2018

**Time : 3 Hours**

**Max. Marks : 80**

**Note :** This paper is of **eighty (80)** marks containing **three (03)** Sections A, B and C. Attempt the questions contained in these Sections according to the detailed instructions given therein.

#### **Section–A**

##### **(Long Answer Type Questions)**

**Note :** Section ‘A’ contains four (04) long answer type questions of nineteen (19) marks each. Learners are required to answer *two* (02) questions only.

1. Write an essay on parasitic diseases of fish.
2. Explain the Semientensive and Extensive culture of carp.
3. Describe the fishery resources in India.
4. Give the definition of Electrophoresis and explain it.

#### **Section–B**

##### **(Short Answer Type Questions)**

**Note :** Section ‘B’ contains eight (08) short answer type questions of eight (8) marks each. Learners are required to answer *four* (04) questions only.

1. Explain the structure and function of skin in fishes.

2. Write a brief essay on integrated fish farming.
3. Describe the process of digestion in fishes.
4. What are the important factor in the construction of and ideal fish pond culture ?
5. Describe the different types of manure used in aquaculture.
6. Describe the Byproduct of fish.
7. Describe the Protozoan diseases of fish.
8. Explain the Polymerase Chain Reaction (PCR).

### Section–C

#### (Objective Type Questions)

**Note :** Section ‘C’ contains ten (10) objective type questions of one (01) mark each. All the questions of this section are compulsory.

Choose the correct answer :

1. Cartilaginous fishes are :
  - (a) Placoderm
  - (b) Acanthodians
  - (c) Chondrichthyes
  - (d) Osteichthyes
2. Placoid scales are present in :
  - (a) Salmons
  - (b) Lamprey
  - (c) Sharks
  - (d) Hag fish

3. The number of chambers in the heart of fishes are :
  - (a) 1
  - (b) 2
  - (c) 3
  - (d) 4
  
4. The major osmoregulatory organs in fishes is :
  - (a) Gills
  - (b) Kidney
  - (c) Liver
  - (d) Stomach
  
5. Which of the following fishes is viviparous ?
  - (a) Salmon
  - (b) Lamprey
  - (c) Shark
  - (d) Chimeras
  
6. Fill in the blanks :

The mouth of ..... has four pair of tentacles.
  
7. Oxygenation take place and blood is collected by ..... vessels.
  
8. .... on is the detection of electrical field.
  
9. Oxygenation take place and blood in collected by afferent vessels. (True/False)
  
10. Pairs gill slites are found in .....

