

U.G. 5th Semester Examination - 2020

ZOOLOGY**[HONOURS]**

Discipline Specific Elective (DSE)

Course Code : ZOOL-H-DSE-T-01

(Fish & Fisheries)

Full Marks : 40

Time : 2½ Hours

*The figures in the right-hand margin indicate marks.**Candidates are required to give their answers in their own words as far as practicable.*

1. Answer any **five** questions : 2×5=10
 - a) Who are cross opterigions?
 - b) What is the function of chloride cell?
 - c) Name two age determining structure of fish.
 - d) What do you mean by Ramjet ventilation?
 - e) Why ovaprim is more economical than HCG in induced breeding?
 - f) What is fish glue?
 - g) State the optimum DO and CO₂ value for aquaculture practice.
 - h) What do you mean by microinjection?
2. Answer any **two** of the following. 5×2=10
 - a) Differentiate between physostomus and physoclistus swim bladder of fish. Deleniate two

important environmental factors regulate seasonal catch in Arabian Sea. $2\frac{1}{2}+2\frac{1}{2}=5$

- b) Differentiate between extensive, semi intensive and intensive culture system of fish. 5
 - c) How selection of breeders is important far Hypophysation? State process of preservation of pituitary gland in induced breeding. 2+3=5
 - d) Discuss two fish diseases associated with water being super saturated with oxygen. State the remedies. 3+2=5
3. Answer any **two** of the following. 10×2=20
- a) Describe in brief inland fisheries resources of India. Name major pelagic fish stock of India. Who are anchovies? 6+2+2=10
 - b) Name the crafts used in East Coast of India. Differentiate between Dugout causes and catamaran. Briefly describe drift nets and gill nets. 2+4+4=10
 - c) State the composition and nutritional aspects of fish. 10
 - d) Discuss on types of cages. Differentiate between guts of carnivorous, herbivorous and omnivorous fish. What is the role of TMAO in osmoregulation of Elasmobranchs? 5+3+2=10