



**WEST BENGAL STATE UNIVERSITY**  
B.Sc. Honours 1st Semester Examination, 2021-22

**IFFACOR02T-INDUSTRIAL FISH AND FISHERIES (CC2)**

Time Allotted: 2 Hours

Full Marks: 40

*The figures in the margin indicate full marks.  
Candidates should answer in their own words as far as practicable  
All symbols are of usual significance.*

1. Answer any **seven** questions of the following: 2×7 = 14
  - (a) Write the feeding adaptations of macrophagous and benthophagous fish.
  - (b) Write the advantages of using pituitary gland extract in induced breeding.
  - (c) What is the function of rectal gland in elasmobranch?
  - (d) Name the stimuli that induces feeding response in fishes.
  - (e) Define grazers and suckers with example.
  - (f) What is the function of gullet in teleosts?
  - (g) What do you mean by diurnal rhythm?
  - (h) What are the movements observed during migration of fishes?
  - (i) What is mesonephric kidney?
  
2. Write short notes on any **two** of the following: 3×2 = 6
  - (a) Mechanism of gas secretion in swim bladder
  - (b) Process of protein digestion in fish
  - (c) Ampullae of Lorenzini
  - (d) Electric organ of fish.
  
3. Answer any **four** questions from the following: 5×4 = 20
  - (a) Describe the osmoregulatory mechanism in freshwater fish. 5
  - (b) What type of fishes show parental care? Describe briefly the parental care of nest building fishes with example. 1+4
  - (c) What is chromatophore? Briefly describe the pigments of chromatophore. 1+4
  - (d) What are the different sensory organs in fish? Describe briefly the stridulatory and hydrodynamic sound production in fishes with example. 2+3
  - (e) Briefly describe the luminous organ in fishes. 5
  - (f) Name the different types of endocrine glands present in fish. Describe the structure of fish pituitary gland with diagram. 2+3

**N.B. :** *Students have to complete submission of their Answer Scripts through E-mail / Whatsapp to their own respective colleges on the same day / date of examination within 1 hour after end of exam. University / College authorities will not be held responsible for wrong submission (at in proper address). Students are strongly advised not to submit multiple copies of the same answer script.*

—×—