



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 1st Semester Examination, 2020, held in 2021

IFFACOR02T-INDUSTRIAL FISH AND FISHERIES (CC2)

BIOLOGY OF FISH

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) What do you mean by ovo-viviparous fish? Give example.
 - (b) Mention the air breathing adaptation of mud eel.
 - (c) What is Circadian rhythm? Mention its relevance in fish.
 - (d) Distinguish between Physostomous and Physoclistous swim bladder with example.
 - (e) Mention the function of Pyloric caeca in fish.
 - (f) Define Gonadosomatic and Gastrosomatic index.
 - (g) Write the characteristics of Pelagic and Demersal eggs in fish.
 - (h) What is the function of ampullae of Lorenzini?
 - (i) What are electrocytes? Mention their function in fish.
2. Write notes on any **two** of the following: 3×2 = 6
- (a) Environmental factors affecting spawning in fish.
 - (b) Poison gland and their role in fish.
 - (c) Development of oocyte in fish.
 - (d) Process of digestion in prawn.
3. Answer any **four** questions of the following: 5×4 = 20
- (a) Give a comparative account of predatory and planktivore feeding adaptation of fish with relevant diagram. 5
 - (b) Explain how pituitary gland controls the reproductive cycle in fish. 5
 - (c) Write briefly the biological significance and mechanism of luminous organ in fish. 2+3

- (d) Describe the osmoregulatory mechanism in elasmobranch fishes. 5
- (e) Briefly describe the structure of a typical freshwater teleostean nephron with diagram. 5
- (f) What is glass eel? Describe briefly the migration of salmon. 1+4

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.*

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