



WEST BENGAL STATE UNIVERSITY
B.Sc. Honours 5th Semester Examination, 2021-22

IFFACOR12T-INDUSTRIAL FISH AND FISHERIES (CC12)

Time Allotted: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks.

Candidates should answer in their own words and adhere to the word limit as practicable.

1. Answer any **seven** questions from the following: 2×7 = 14
- (a) What is polytene chromosome?
 - (b) What do you mean by Gonochorism in fish?
 - (c) What is telomere?
 - (d) What is the difference between Karyotype and Idiogram?
 - (e) What do you mean by Euchromatin and Heterochromatin?
 - (f) What is interspecific hybridization? Give example from fish.
 - (g) What is thawing? Mention its significance in cryopreservation of gamete.
 - (h) What do you mean by inbreeding and outbreeding?
 - (i) What is Jayanti rohu?
2. Write short notes on any **two** from the following: 3×2 = 6
- (a) Centromere
 - (b) Heterosis
 - (c) Transgenic fish
 - (d) Polyploidy.
3. Answer any **four** questions from the following: 5×4 = 20
- (a) Describe Watson and Crick model of DNA structure with labelled diagram. 5
 - (b) What is Law of Independent Assortment? Explain it with suitable example. 1+4
 - (c) Write an account of chromosomal basis of sex determination in fish with a note on environmental influences on sex determination. 3+2
 - (d) What is selective breeding? Comment on hazardous effect of unplanned and accidental hybridization in fish. 2+3
 - (e) What do you mean by allelic and non-allelic gene? Give a brief account of non-allelic interaction of gene. 2+3
 - (f) Write an account of practical applications of genetics in aquaculture. 5

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.*

—x—