



WEST BENGAL STATE UNIVERSITY

B.Sc. Honours 6th Semester Examination, 2022

IFFADSE05T-INDUSTRIAL FISH AND FISHERIES (DSE3/4)

CULTURE OF LIVE FISH FOOD ORGANISMS

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.
All symbols are of usual significance.*

1. Answer any **seven** questions from the following: 2×7 = 14
 - (a) Comment on nutritional enrichment of *Artemia*.
 - (b) Why chironomid larvae are also known as “blood worms”?
 - (c) What are the different morpho-types of *Brachionus plicatilis*?
 - (d) What is ephippium?
 - (e) Mention the significance of stock culture.
 - (f) Specify the reason for which decapsulated *Artemia* cysts are to be dipped in 0.1% sodium thiosulphate solution.
 - (g) Provide the names of two common culture media used for micro-algae cultures.
 - (h) Define sterilization.
 - (i) Specify the significance of graspers.

2. Write short notes on any **two** of the following: 3×2 = 6
 - (a) Detrital system of *Daphnia* culture
 - (b) Pre-treatment of water for algae culture
 - (c) Reproductive biology of *Brachionus plicatilis*
 - (d) Culture of infusoria.

3. Answer any **four** questions from the following: 5×4 = 20
 - (a) Specify the criteria to be considered for selection of live fish feed. Write an account on proximate composition of rotifers and copepods commonly used as live fish feed. 2+3
 - (b) Write an account on culture requirement of *Moina*. Comment on the characters through which *Daphnia* can be distinguished from *Moina*. 3+2
 - (c) Describe the life history of *Artemia* with proper diagram. 5

- (d) Describe the significance of live fish food for larval rearing of ornamental fish. 5
- (e) Write an account on algal growth dynamics. 5
- (f) Write an account on sexual reproduction of *paramoecium* with proper diagram. 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.*

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