

2023

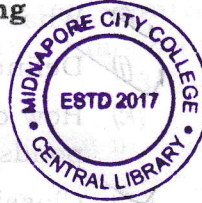
BFSC 3rd Semester Examination

Aquaculture Engineering

PAPER — BFSC-309

Full Marks : 50

Time : 2 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.*

Illustrate the answers wherever necessary.

1. Answer any **ten** questions from the following :
2×10=20

- (a) What is datum and benchmark?
- (b) What do you mean by chain survey?
- (c) Mention the names of instrument used in compass survey method.
- (d) What do you mean by contour interval?

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(Turn Over)

(2)

- (e) What do you mean by datum and bench mark?
- Define Mean Sea Level (MSL).
- (g) Mention different types of levelling methods.
- (h) What do you mean by longitudinal slope and cross slope?
- What is pond dike?
- Define seepage.
- (k) How do you distinguish between excavated ponds and embankment ponds?
- Classify aquaculture ponds based on the culture.
- (m) What do you mean by berm?
- (n) What is clay puddling?
- What is sluice gate?
- (p) Define biological filtration system.
- Write a short note on trickling filter.
- (r) Mention the name of different types of aerators used in aqua farm.
2. Answer **any six** questions from the following :
5×6=30
- (a) Briefly elaborate the selection of a suitable site for a freshwater aqua farm. 5

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(Continued)



(3)

- Write down the pre-stocking management procedure of a dry type nursery pond. 5
- (c) Write a note on soil erosion in pond dike and its effective control measures. 5
- Illustrate briefly the tide fed and pump fed brackish water fish farms. 5
- (e) What do you mean by water control structures? What are the basic requirements of a sluice gate? 3+2=5
- (f) What are the purpose of pumping in aqua farms? Mention the types of pump used in aqua farms. 2+3=5
- (g) Write a note on sand filter used in aquaculture. What are the main advantages of sand filters in aquaculture systems? 3+2=5
- (h) Discuss aeration system in fish pond. 5
- What are the advantages and disadvantages of raceway culture system? 5
- (i) Briefly describe the major components of a freshwater eco-hatchery system for fish seed production. 5

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