

Total Pages : 3

B.F.Sc./3rd Sem /25

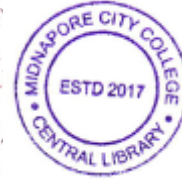
2025

3rd Semester Examination

4-Years B.F.Sc.

Paper : BFSC-309

(Aquaculture Engineering)



Full Marks : 50

Time : Two Hours

*The figures in the margin indicate full marks.*

*Candidates are required to give their answers in their own words as far as practicable.*

**Group - A**

1. Answer any *ten* questions :  $2 \times 10 = 20$

(a) Write the criteria for construction of marine fish culture system.

(b) Mention two functions of activated carbon filter.

(c) Differentiate between magnetic compass, prismatic compass.

(d) Write the soil type for best fish farm construction.

(e) Define chain surveying.

(f) What is levelling? Name two instruments used to levelling study.

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- (g) Write short note on artemia hatching tank.
- (h) Write two important methods of soil sampling.
- (i) Mention two advantages of rectangular ponds over square ponds.
- (j) Write the characteristics of nursery pond and stocking pond for IMC culture.
- (k) What is water budget equation?
- (l) What are meridians in compass surveying?
- (m) Define barrage pond.
- (n) What is secondary dike?
- (o) Write the different factors influencing the water storage in fish pond.

### Group - B

2. Answer any six questions :

5×6=30

(a) What is an aerator? Mention classification and placement of aerators in aquaculture pond. 1+4

(b) Describe the classification of soil based on texture. Explain any two soil properties important for pond construction. 3+2

(c) Write a short note on Tide fed brackish water fish farm.



(d) What are the essential infrastructural facilities required in a hatchery? State two basic criteria for site selection of a hatcheries. 3+2

(e) Narrate the total head and horse power calculation in a shrimp farming pond. 2+3

(f) Briefly discuss about cascade raceway system.

(g) Mention the control method of seepage. Which are the factors that affecting evaporation? 3+2

(h) Explain the criteria for selecting a site for an IMC aquafarm. Describe the importance of pre-investment survey. 2+3

(i) Describe the basic problems in chaining and methods to overcome them. 2+3

(j) What is a contour? Explain the methods and uses of contouring in aquafarm site selection. 2+3

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