2023

BFSC 4th Semester Examination

Fish Nutrition and Feed Technology

PAPER — BFSC-405

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** from the following questions :
$2 \times 10 = 20$

   (a) State the factors affecting feed digestibility.

   (b) Mention the characteristics and importance of floating feed.

   (c) How would you calculate specific growth rate of fish?

   (d) State the concept of mash feed.

/559   (*Turn Over*)

(2)

What do you mean by microalgae? Cite two examples.

(b) Define Feed Conversion Ratio (FCR).

(c) What is antinutritional factor? Give two examples with their sources.

(d) Define PER.

(e) Write a note on food pigments.

(i) Which amino acids are chemoattractants stimulating fish feed behaviour?

(k) What do you mean by supplementary feed?

(l) Define non-protein nitrogenous compound.

(m) Define Metabolizable Energy.

(x) Mention the names of two binders of fish feed.

(o) State the water stability of fish feed.

2. Answer *any* **six** from the following questions :

$5 \times 6 = 30$

(a) Discuss the importance of live food for larval development of carps. 5

(b) Discuss various issues of fish feed storage problems. 5

(c) Discuss in brief on the nutritional deficiency diseases of fish. 5

(d) Write a note on non-conventional fish feed ingredients. 5

(Continued)

(3)

(e) Prepare 200 kg fish feed with 35% protein by square method, using fish meal (CP 61%), Soybean meal (CP 54%), Rice bran (CP 14%), Ground nut oil cake (CP 25%), Wheat flour (CP 12%). 5

(f) Enlist different live foods and their nutritional value. 5

(g) What do you mean by feed additives? Mention different feed additives used in fish feed formulation. $1\frac{1}{2} + 3\frac{1}{2} = 5$

(h) Add a note on feeding management of *Penaeus monodon*. 5

(i) Discuss about ration size and feeding frequency of IMC culture. $2\frac{1}{2} + 2\frac{1}{2} = 5$

(j) Write a note on gut probiotics of fish and its importance in fish culture. 5

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