

2023

BFSC 2nd Semester Examination

Food Chemistry

PAPER — BFSC-208

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 :
2×10=20

- (a) What are the major components of the Electron Transport Chain (ETC)?
- (b) What do you mean by Oxidative Phosphorylation?
- (c) How many molecules of ATP are produced by NADH and FADH₂?

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(Turn Over)



(2)

- (d) What polysaccharides are found in seaweeds?
- (e) Which major proteins are found in the fish muscle tissue?
- (f) What are the chemical changes that occur during muscle contraction in fish?
- (g) What do you mean by HDL? Write its importance.
- (h) What is the importance of PEP?
- (i) Write down the formula of NPU.
- (j) Give example of two antimicrobial additives in fish feeds.
- (k) What are emulsifiers and what are common examples used in food?
- (l) What are the benefits of shellfish in diet?
- (m) What does negative nitrogen balance indicate?
- (n) Write down the process of maintenance of fish feed test.
- (o) What is the role of pepsin in digestion?

2. Answer any six from the following questions :
6×5=30

- (a) Describe Biological Oxidation Process. 5
- (b) Explain the assessment of quality of food by instrumental and chemical methods. 5

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(Continued)

(3)

- (c) Describe the role of fibre in human nutrition. 5
- (d) Write down the functional properties of protein. 5
- (e) Write down the role of hydration in denatured proteins. 5
- (f) Explain BV digestibility coefficient. Write its importance. 3+2=5
- (g) Describe the different steps of oxidative phosphorylation. 5
- (h) Write down the process of acid-base balance in aquatic body. 5
- (i) Write down the enzymatic and non-enzymatic browning reactions. 5
- (j) Write down the role of moisture in fish feed preparation. 5

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