**UoK -FYUGP - 2024**

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| **University of Kerala** | | |
| **Discipline: Biochemistry** |  | **Time: 1 Hour 30 Minutes (90 Mins.)** |
| **Course Code: UK1MDCBCH101** |  | **Total Marks: 42** |
| **Course Title: Nutritional Biochemistry for Health & Fitness** |  |  |
| **Type of Course: MDC** |  |  |
| **Semester: 1** |  |  |
| **Academic Level: 100-199** |  |  |
| **Total Credit: 3, Theory: 3 Credit, Practical: 0 Credit** |  |  |

**Part A. 6 Marks**. Time: 5 Minutes

Objective Type. 1 Mark Each. Answer All Questions

(Cognitive Level: Remember/Understand)

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| **Qn. No** | **Question** | **Cognitive Level** | **Course**  **Outcome (CO)** |
| 1 | Define metabolism. | Remember | CO1 |
| 2 | Calorific value for carbohydrates and fats. | Remember | CO2 |
| 3 | Mention any two water-soluble vitamins and fat-soluble vitamins. | Remember | CO2 |
| 4 | Expand the term ATP. | Remember | CO1 |
| 5 | Define SDA. | Understand | CO2 |
| 6 | Which types of food are called energy-yielding and protective foods? | Understand | CO2 |

**Part B. 8 Marks**. Time: 25 Minutes

Short Answer. 2 Marks Each. Answer All Questions

(Cognitive Level: Understand/Apply)

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| **Qn.No** | **Question** | **Cognitive Level** | **Course**  **Outcome (CO)** |
| 7 | Why is ATP called the energy currency of the cell? | Understand | CO1 |
| 8 | Explain the significance of water in the body. | Understand | C02 |
| 9 | How does the body adapt metabolically to aerobic exercise? | Understand | C03 |
| 10 | Explain the dietary approach helps to manage inflammation. | Understand | C04 |

**Part C. 28 Marks**. Time: 60 Minutes

Long Answer. 7 Marks Each. Answer all 4 questions, choosing

among options within each question.

(Cognitive Level: Apply/Analyse/Evaluate/ Create)

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| **Qn.**  **No** | **Question** | **Cognitive Level** | **Course**  **Outcome**  **(CO)** |
| 11 | 1. Distinguish between anabolism and catabolism, highlighting their roles in metabolism .   OR   1. Evaluate why the phosphocreatine system is considered a short-term energy system. | Understand  Understand | CO1 |
| 12 | 1. Give a diagrammatic representation of the food pyramid and highlight its role as a guide in menu planning.   OR   1. Create a tabular column showing various water-soluble vitamins and their different sources and functions . | Understand  Remember | CO2 |
| 13 | 1. Discuss the physiological responses to exercise and physical activity.   OR   1. Describe the role of carbohydrates, fats, and proteins in exercise metabolism, | Understand  Remember | CO3 |
| 14 | 1. Evaluate the main aspects of dietary advice for the prevention of coronary heart disease.   OR   1. Analyse the impact of exercise on hormones and neurotransmitters. | Understand  Understand | CO4 |