

# KANYASHREE UNIVERSITY

M.Sc. 1<sup>st</sup> SEMESTER EXAMINATION 2022

Subject- Food and Nutrition

Course- CC -2

**Food Chemistry**

Full Marks- 40

Time- 2.00 Hours

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## Group-A

[Answer **any four** questions]

**5 × 4 = 20**

1. Nutritional Significance of Branched Chain Amino Acid. 5
2. Write down a short note on Phytonutrients. 5
3. Discuss the role of Calcium and Vitamin D in healthy bone formation. 5
4. What are the functions of water and electrolytes in our body? Describe the role of folate in human nutrition. 2 + 3
5. Write down a short note on Microbial Polysaccharide. 5
6. Co-enzyme activity of niacin. Major fluid compartments of the body. 3 + 2
7. Differentiate between the following sets of terms: 1×5
  - (i) Good cholesterol – Bad cholesterol. (ii) Protein Isolates – Protein Concentrate.
  - (iii) Amylose – Amylopectin. (iv) n-3 fatty acid – n-6 fatty acid.
  - (v) Intracellular fluid – Extracellular fluid.

## Group-B

[Answer **any two** questions]

**10 × 2 = 20**

8. Name two disaccharide present in our diet and give structure of them. Write down the functions of lipoprotein in our body. Elaborate on the role of Vitamin K in blood coagulation. Discuss about the types of RNA. 2 + 3 + 2 + 3
  9. Discuss the role of dietary fibre in the production of short chain fatty acid by gut microbiome. Write down the levels of protein structure. 5 + 5
  10. What do you mean by positive water balance? When does negative water balance occur? How water balance is regulated in human body? 2 + 2 + 6
  11. Draw and structure any two aliphatic amino acid. Write in short about “Denaturation of Protein”. What are essential fatty acids? Why fish oil is beneficial for maintaining healthy heart? 2 + 3 + 2 + 3
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