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PG CBCS
M.Sc. Semester-IV Examination, 2022
NUTRITION & DIETETICS
Paper Code: NUD 403
(NUTRACUTICALS AND HEALTH FOODS AND FOOD PROCESSING AND FOOD PRESERVATION)

Full Marks: 40   **Time: 2 Hours**
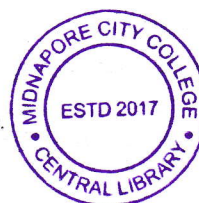
Write the answer for each unit in separate sheet

The figures in the right-hand margin indicate full marks.

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

Unit: 41

Food Processing and Food Preservation

1. **Answer any two questions:** $2 \times 2 = 4$
   a) Write the name of four isoflavones.
   b) What are phytoestrogen?
   c) What do you mean by amylase inhibitors? Give examples.
   d) What is pre-clinical study of nutracuticals?

2. **Answer any two questions:** $2 \times 4 = 8$
   a) Write the role of isoflavones for controlling blood sugar level.
   b) State the health beneficial roles of ω-3 fatty acids.
   c) Discuss the anti-nutritional effect of phytates?
   d) 'Organo sulphar compounds are utracuticals' – justify the statement.

3. **Answer any one questions:** $1 \times 8 = 8$
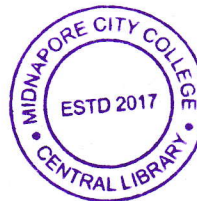   a) Briefly discuss about the anti-carcinogenic activities of curcumin. How curcumin is metabolizing in our body? $3+5 = 8$
   b) Explain the role of any four biomarkers for indicating the efficacy of functional ingredients in food maintain and target system. $6+2 = 8$

(Turn Over)

Unit: 42

Food Processing and Food Preservation

1. **Answer any <u>two</u> questions:**   2×2 = 4
    a) Define Z value.
    b) What is reverse osmosis?
    c) Define blanching.
    d) Differentiate between drying and food dehydration.

2. **Answer any <u>two</u> questions:**   2×4 = 8
    a) Briefly describe how do extrinsic factors affect the microbial growth in food.
    b) What are the major causes of food borne illness?
    c) What is preservative? State the characteristics of ideal preservatives.
    d) Discuss briefly about the use of enzymes in food and beverage industry.

3. **Answer any <u>one</u> question:**   1×8 = 8
    a) What is agglomeration? Write briefly about the food technique and its safety assessment.

                                                    2+(3+3) = 8

    b) Briefly describe the canning process of fruits and vegetables. How do canned products spoil?

                                                    4+4 = 8

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