Integrated B.Sc.-M.Sc. Clinical Nutrition and Dietetics (CND)
Fourth Year Semester- VII March 2022 Examination

Time- 2 Hrs

[Max Marks: 60]

FOOD TOXICOLOGY QP Code: N7200

Your answer should be specific to the question asked Draw neat labeled diagrams wherever necessary

LONG ESSAY

2x10= 20 Marks

- 1. Explain qualitative and quantitative analysis of toxicant in foods
- 2. Explain the Routes of Xenobiotics absorption in an Organism

SHORT ESSAY

5x5=25 Marks

- 3. Identify tissues and factors involved in biotransformation
 - 4. Discuss examples of known teratogens, mutagens and carcinogens
 - 5. Explain the formation of Millard reaction products
 - Explain the effective dose, margin of safety and the relationship of effective versus toxic
 dose
 - 7. Discuss the role of Lymph in absorption and distribution of xenobiotics

SHORT ANSWER

5x3=15 Marks

- 8. What is Hormesis?
- 9. Mention the braches of toxicology
- 10. Mention the relationship between toxicology and pharmacology
- 11. What is genetic toxicity
- 12. Define phytotoxins. Give an examples

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Integrated B.Sc. - M.Sc. Clinical Nutrition and Dietetics (CND)

Fourth Year Semester-VII March 2022 Examination

Time: 2 Hrs Max Marks: 60

FUNCTIONAL FOODS AND NUTRACEUTICALS QP Code: N7220

Your answers should be specific to the question asked Draw neat labelled diagrams wherever necessary

LONG ESSAY 2×10=20 Marks

1. Name antioxidants present in foods explain their role in therapeutic applications.

2. Explain the rich source of fiber and its role in health.

SHORT ESSAY 5×5=25 Marks

3. What are natural sweetener and explain its health benefits

- 4. Classification of phytochemicals
- 5. Types and sources of functional foods
- 6. Explain the health benefits of Conjugated linolenic acid
- 7. Highlight a brief overview about functional food product in Indian market

SHORT ANSWER 5×3=15 Marks

- 8. Packaging and labeling requirements for nutraceuticals products
- 9. Write notes on spirulina and lycopene as food supplement.
- 10. Write notes on nutraceutical remedies for anti-inflammation properties
- 11. Write a note on Garlic and Fish oil as a healthy food.
- 12. Write a note on probiotics and prebiotics

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Integrated B.Sc.-M.Sc. Clinical Nutrition and Dietetics (CND) Fourth Year Semester- VII March 2022 Examination

Time- 2 Hrs

[Max Marks: 50]

NUTRITIONAL GENOMICS OP Code: N7230

Your answer should be specific to the question asked Draw neat labeled diagrams wherever necessary

LONG ESSAY

2 x 6 = 12 Marks

- 1. Define Lipid and mention its types with examples. Note on functions of lipids
- 2. Explain the role of Nutritional epigenetics on metabolic syndrome

SHORT ESSAY

 $6 \times 4 = 24 \text{ Marks}$

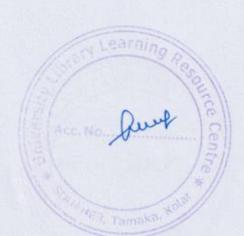
- 3. Explain about epigenetic effects related to reproduction in humans
- 4. Role of gene-gene interaction in obesity and diabetes
- 5. Explain Genetic Buffering with examples
- 6. Draw structure of nuclear receptor and discuss on its functions
- 7. Explain lipolysis with two examples
- 8. Differentiate genomics and metabolomics

SHORT ANSWERS

 $7 \times 2 = 14 \text{ Marks}$

- 9. Define SNP with example
- 10. Name two neurodevelopmental disorders
- 11. Importance of vitamin D to human
- 12. Allele and variant
- 13. Phytoestrogens and steroids
- 14. Imprinting and Angiogenesis
- 15. Retrovirus and List LDL subclasses

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Integrated B.Sc. - M.Sc. Clinical Nutrition and Dietetics (CND)

Fourth Year Semester-VII March 2022 Examination

Time: 2 Hrs Max Marks: 50

FOOD MICROBIOLOGY

QP Code: N 7240

Your answers should be specific to the question asked Draw neat labelled diagrams wherever necessary

LONG ESSAY 2×6=12 Marks

- 1. Explain the procedure of canning
- 2. Elaborate on factors determining microbial spoilage of foods

SHORT ESSAY 6×4=24 Marks

- 3. Discuss the microbial growth curve pattern
- 4. Discuss the principles of food preservation
- 5. Explain the intermediate moisture foods in detail
- 6. Discuss the role of yeasts and moulds in food spoilage
- 7. Brief out the spoilage of fresh fish
- 8. Discuss Alcoholic fermentation

SHORT ANSWER 7×2=14 Marks

- 9. ELISA
- 10. List out the types of food fermentations
- 11. Spatial Heterogenity
- 12. Field and storage fungi
- 13. List the types of milk spoilage
- 14. How are foods classified based on their acidity
- 15. List the causes of food borne intoxications

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