TM211410TR Reg. No :......

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# M. Sc. DEGREE (C.S.S.) EXAMINATION, NOVEMBER 2021

# [ 2021 Admissions Regular and 2020 Admissions Improvement & Supplementary ] SEMESTER I - CORE COURSE ( FOOD SCIENCE AND NUTRITION )

# FN1C02TM20 - ADVANCED NUTRITION I

Time: 3 Hours Maximum Weight: 30

#### Part A

## I. Answer any Eight questions. Each question carries 1 weight

(8x1=8)

- 1. Define body composition at Atomic level.
- 2. Classify body composition assessment techniques. Give any two examples for each.
- 3. Define Energy and enlist the need for food energy in human body.
- 4. Define Indian reference man and woman.
- What is lactose intolerance? What are the ill effects of it? How can it be treated?
- 6. What is pectin? Mention its significance in nutrition.
- 7. Elaborate on obligatory nitrogen losses of adults.
- 8. Define and enlist essential amino acids.
- 9. Define lipotropic factors. Give examples.
- Differentiate fat replacers and fat burners.

#### Part B

## II. Answer any Six questions. Each question carries 2 weight

(6x2=12)

- 11. Discuss Under water weighing as a method to assess body composition.
- 12. Describe the causative factors of overweight.
- 13. Discuss on the hormonal control of carbohydrate homeostasis.
- 14. Describe the process of glycogen synthesis.
- 15. With the help of a diagramme describe the process of peptide absorption.
- 16. State the current methodology for determining protein requirement of Indians. Give the protein requirement of adults
- 17. Give an account of various types of fatty acids.
- 18. Why is LDL referred to as 'bad' cholesterol and HDL as 'good' cholesterol?

#### Part C

#### III. Answer any Two questions. Each question carries 5 weight

(2x5=10)

- 19. With the help of a diagramme explain the principle and method of measuring gross calorific value of foods in bomb calorimeter.
- 20. Describe TCA cycle.
- 21. Classify proteins based on chemical nature. Enlist the functions of protein
- 22. Describe the reactions of Beta oxidation of fat.