



University of Choice

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY (MMUST)**

MAIN CAMPUS

UNIVERSITY EXAMINATIONS

MAIN EXAMINATION

2023/2024 ACADEMIC YEAR

FIRST YEAR FIRST TRIMESTER EXAMINATIONS

FOR THE DEGREE OF

MSC. PUBLIC HEALTH NUTRITION

COURSE CODE: PHN 870

COURSE TITLE: ADVANCED HUMAN NUTRITION

DATE: 15TH FRIDAY DECEMBER, 2023

TIME: 8.00AM - 10.00 AM

INSTRUCTIONS TO CANDIDATES

1. Section 1, comprises of 6 essay type questions. Answer **ONLY FIVE**

TIME: 3 Hours

MMUST observes ZERO tolerance to examination cheating.

This Paper consists of 5 Printed Pages. Please Turn Over

THE PAPER HAS 6 QUESTIONS. QUESTION ONE IS COMPULSORY AND IN ADDITION ANSWER ANY OTHER FOUR. EACH QUESTION IS 20 MARKS. TOTAL 100 MARKS

1. Describe clinical implications of the following on human nutrition and health
 - a. Glycemic index of food 5 marks
 - b. Glycemic Load of food 5marks
 - c. Satiety index of food 5 marks
 - d. Polyols in food 5 marks
2. Illustrate the nutrition aspects of omega 3 fatty acid, omega 6 fatty acid, phytochemicals and plant sterols that are important in disease prevention and management (20 marks)
3. The biggest challenge of mineral and vitamins metabolism is their bioavailability. Discuss on how this can be addressed to enhance their bioavailability during digestion, absorption and transportation. (20 marks)
4. Describe biochemical functions of water soluble vitamins in the body (20 marks)
5. Demonstrate the relation between nutrition and disease prevention and management focusing on proteins and trace minerals and electrolytes (20 marks)
6. Drugs and nutrients interact. Nutrients nutrients interact. Explain (20 marks)