

FEDERAL UNIVERSITY OF TECHNOLOGY, OWERRI
SCHOOL OF PHYSICAL SCIENCES
DEPARTMENT OF SCIENCE LABORATORY TECHNOLOGY
HARMATTAN SEMESTER EXAMINATION 2014/2015 SESSION
STC 509: BIOCHEMISTRY OF FOODS AND NUTRITION
TIME ALLOWED: 2 HOURS
INSTRUCTION: ANSWER ONE QUESTION FROM EACH SECTION

SECTION A

- (a) What do you understand by the term "nutritional diseases"?

(b) Discuss six diseases caused by nutritional deficiency, stating their deficient nutrients, symptoms and the foods rich in the key nutrients.

(c) What is obesity? (d) How can you control and treat obesity?
- (a) Define the terms "basal metabolic rate (BMR) and resting metabolic rate (RMR)".

(b) State the differences between BMR and RMR.

(c) What is the BMR of a 70 year old man who is 1.52 meters tall and weighing 75 kg?

(d) What is the RMR of a 60 year old woman weighing 75 kg and is 1.46 meters tall?

SECTION B

- (a) State the needs of food energy by humans.

(b) Not all combustible energy is available to for maintaining energy balance. Discuss.
- Describe exhaustively protein as an important food nutrient.

SECTION C

- (a) Describe the Food Guide Pyramid.

(b) Using the exchange system, plan a day's menu that will add up to 2,100 calories. Explain your choice of foods.

SECTION D

- Write concisely on the following vitamins: B₁, B₆, B₁₂ under (i) structure (ii) coenzyme functions (iii) biochemical functions.