



MERU UNIVERSITY COLLEGE OF SCIENCE & TECHNOLOGY

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University Examinations 2012/2013

SECOND YEAR, SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR
OF SCIENCE IN FOOD SCIENCE AND NUTRITION

AFS 2202: PRINCIPLES OF HUMAN NUTRITION

DATE: DECEMBER 2012

TIME: 2 HOURS

INSTRUCTIONS: Answer question *ONE* and any other *TWO* questions

QUESTION ONE – 30 MARKS

- (a) Give three symptoms of the following conditions. (6Marks)
 - (i) Under-nutrition
 - (ii) Over-nutrition
- (b) Explain four roles of nutrients in the body. (4Marks)
- (c) Highlight four important functions of carbohydrates in human body. (4Marks)
- (d) Giving examples, explain the classification of carbohydrates. (6Marks)
- (e) Describe three routes in human body which initiate drinking of water when one is thirsty. (6Marks)
- (f) Explain Vitamin C deficiency and excess conditions in the body. (4Marks)

QUESTION TWO – 20 MARKS

- (a) Discuss the digestion and absorption of carbohydrates in human body. (10Marks)
- (b) Briefly explain ten determinants of energy expenditure in human being. (10Marks)

QUESTION THREE – 20 MARKS

Discuss chemical and numerical classification of amino acids citing examples. (20Marks)

QUESTION FOUR – 20 MARKS

- (a) In most industrialised countries, the prevalence of cardiovascular disease is very high. Explain the risk factors of this disease. (15Marks)
- (b) Give five benefits of cholesterol in human body. (5Marks)

QUESTION FIVE – 20 MARKS

- (a) Discuss various ways in which energy is expended in human body. (10Marks)
- (b) Explain the role of insulin in weight gain and obesity. (10Marks)