

# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

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#### University Examinations 2012/2013

THIRD YEAR, FIRST SEMSTER, EXAMINANATIONS FOR DEGREE OF FOOD SCIENCE AND NUTRITION

### AFN 2301: NUTRITIONAL EPIDEMIOLOGY II

DATE: AUGUST 2013

**TIME: 2 HOURS** 

**INSTRUCTIONS:** Answer one question and any other two questions

### **QUESTION ONE – (30 MARKS)**

- a) Differentiate between correlational studies and controlled trials (5 Marks)
- b) List factors that are considered as criteria for causality if an association is observed in an epidemiologic study. (5 Marks)
- c) Name the sources of error in collecting dietary data using 24 hour recall and how to minimize error. (5 Marks)
- d) Briefly discuss the strengths of food frequency questionnaire method of data collection (5 Marks)
- e) Explain the different types of analytical procedures/approaches to biochemical indication measurements. (5 Marks)
- f) Explain reproducibility of food frequency questionnaire (5 Marks)

### **QUESTION TWO- (20 MARKS)**

Discuss the advantages and disadvantages of describing diet in terms of its chemical composition (Nutrient content) on the hand and in terms of foods and food groups on the other hand. (20 Marks)

### **QUESTION THREE- (20 MARKS)**

- a) List the strengths of the24-hour recall and diet record methods of dietary data collection. (5 Marks)
- b) Discuss the factors that determine the number of days to collect/record dietary intake using 24-hour recall and diet record. (10 Marks)
- c) Name the major components of nutrient calculation system method of analyzing diet record or 24 hour recall (5 Marks)

## **QUESTION FOUR - (20 MARKS)**

a) Discuss multivariate analysis (10 Marks)
b) Discuss sources of error and strategies to minimize control sources of bias for biochemical measure. (10 Marks)

## **QUESTION FIVE - (20 MARKS)**

- a) Discuss the role of meta-analysis and pooled analysis in nutritional epidemiology
  - (10 Marks)
- b) Discuss any five approaches for evaluating dietary questionnaire, (10 Marks)