



# MERU UNIVERSITY OF SCIENCE AND TECHNOLOGY

P.O. Box 972-60200 – Meru-Kenya.

Tel: 020-2069349, 061-2309217. 064-30320 Cell phone: +254 712524293,

+254 789151411

Fax: 064-30321

Website: [www.must.ac.ke](http://www.must.ac.ke) Email: [info@must.ac.ke](mailto:info@must.ac.ke)

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## University Examinations 2013/2014

THIRD YEAR, FIRST SEMESTER EXAMINATIONS FOR DEGREE OF BACHELOR OF  
SCIENCE IN FOOD SCIENCE AND NUTRITION

### AFN 2301: NUTRITIONAL EPIDEMIOLOGY II

DATE: APRIL 2014

TIME: 2 HOURS

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

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#### QUESTION ONE – (30 MARKS)

- (a) Define the following terms:
- (i) Sedentary behavior
  - (ii) Physical activity level (PAL)
  - (iii) Relative weight
  - (iv) Lean body mass
  - (v) Multivariate adjustment for height (5 Marks)
- (b) Differentiate between physical fitness and physical activity. (5 Marks)
- (c) Differentiate between random and systematic errors. (5 Marks)
- (d) Briefly describe densitometry. (5 Marks)
- (e) Briefly discuss the reproducibility and validity of weight and height measurements. (5 Marks)
- (f) Briefly explain how weight and height are related to the nutritional status. (5 Marks)

#### QUESTION TWO – (20 MARKS)

- (a) State the reasons why total energy intake deserves special consideration in nutritional epidemiology. (4 Marks)
- (b) State and describe the determinants of between – person variation in total energy intake. (6 Marks)
- (c) Discuss the adjustment for energy intake in epidemiologic analyses. (10 Marks)

**QUESTION THREE – (20 MARKS)**

- (a) Discuss the importance and nature of variation in diet in relation to nutritional epidemiology. (10 Marks)
- (b) Discuss the effects of random within – person variation on measures of association in epidemiologic studies. (10 Marks)

**QUESTION FOUR – (20 MARKS)**

- (a) Briefly discuss self-reported weight and height. (5 Marks)
- (b) State and discuss the analytic issues in the assessment of physical activity. (15 Marks)