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**University Examinations 2015/2016**

THIRD YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SCIENCE AND NUTRITION

**AFN 3325: NUTRITIONAL EPIDEMIOLOGY II**

 **DATE: NOVEMBER 2015 TIME: 2 HOURS**

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

**QUESTION ONE (30 MARKS)**

1. Differentiate between the following terms:
2. Host, environment and agent. (3 Marks)
3. Nutrition and nutritional status. (2 Marks)
4. Briefly describe three different types of disease host. (3 Marks)
5. Explain the various methods of nutritional status assessment. (4 Marks)
6. Briefly discuss the various types of specialized nutritional therapy. (5 Marks)
7. Briefly describe the goals of nutritional epidemiology. (3 Marks)
8. Using a nutrition-related health event or disease as an example, briefly describe the concept of multifactorial etiology. (4 Marks)
9. Explain four types of disease screening. (3 Marks)
10. Use the example of the role of folic acid in foetal development to demonstrate the role of epidemiology in generating new hypothesis about diet and disease. (3 Marks)

**QUESTION TWO (20 MARKS)**

1. Distinguish between case-control studies and cohort studies. (10 Marks)
2. Discuss statistical significance versus clinical significance (use examples). (10 Marks)

**QUESTION THREE (20 MARKS)**

1. Use a diagram (a conceptual scheme) and a hypothetical disease to elaborate on the sufficient cause and component causes model of disease causation. (10 Marks)
2. Discuss the various measurement of morbidity and mortality. (10 Marks)

**QUESTION FOUR (20 MARKS)**

1. In a population of 30 thousand students in the year 2007 there were 500 new case of all illness. Calculate the incidence rate. (3 Marks)

 Month 12

 Month 11 \*Disease onset

 \*Month 10

 \*Month 9

 \*Month 8

 \*Month 7

 \*Month 6

 Month 5

 Month 4

 \*Month 3

 \*Month 2

 \*Month 1

Month 1 Month 12

1. Assuming that entire population at risks was followed up for specified time period. Calculate the cumulative incidence. (3 Marks)
2. Discuss the natural history of disease. (14 Marks)