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**University Examinations 2014/2015**

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

**AFS 2303: NUTRITION RESEARCH**

 **DATE: APRIL 2015 TIME: 2 HOURS**

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

**QUESTION ONE (30 MARKS)**

1. Describe non-experimental (observational) epidemiological studies (5 Marks)
2. Explain the term correlation and describe how it is applied in statistical analysis of nutrition studies (5 Marks)
3. Differentiate between sensitivity and specificity (5 Marks)
4. Briefly discuss validity and its various forms (5 Marks)
5. Briefly explain the two possible errors that can be made when deciding whether or not the null hypothesis can be rejected or not (5 Marks)
6. Briefly describe in vitro studies (5 Marks)

**QUESTION TWO (20 MARKS)**

State any five research design options in nutritional epidemiology and for each option, state its setting, uses, advantage and limitations (20 Marks)

 **QUESTION THREE (20 MARKS)**

1. Discuss hypothesis testing, its use and application (10 Marks)
2. Giving an example, explain the difference between primary prevention trials and secondary prevention trials (10 Marks)

**QUESTION FOUR (20 MARKS)**

1. Define and differentiate between prevalence and incidence (10 Marks)
2. State the reasons why studies involving humans are more difficult to conduct (2 Marks)
3. State the factors that influence the metabolic effect of the nutrients in question in

 randomized clinical trials (8 Marks)