

**FEDERAL UNIVERSITY OF TECHNOLOGY, MINNA**  
**SCHOOL OF SCIENCE AND SCIENCE EDUCATION**  
**DEPARTMENT OF GEOGRAPHY**

**FIRST SEMESTER 2011/2012 SESSION UNDERGRADUATE EXAMINATION**

**COURSE CODE:** GRY 417P

**COURSE TITLE:** Advanced Quantitative Techniques

**INSTRUCTIONS:** You **MUST** answer question **6** and any other **3** questions ( Four questions in all). Credit will be given for the use of appropriate illustrations and specific examples

**Time allowed: 2hrs 30mins.**

1. (a) Distinguish between the following terms:
  - (i) Descriptive and Inferential Statistics
  - (ii) Parametric and non-parametric Statistics(b) Hypothesis testing is a rigorous activity. Discuss the steps involved in hypothesis Testing  
(c) Illustrate with examples, the difference between directional (one-tailed) or non-directional (two-tailed) hypothesis  
(d) Distinguish between Type I and Type II errors  
(e) Under what condition may the Null hypothesis be rejected. (9mks)
2. (a) State the steps required in launching a Microsoft Excel Package  
(b) State the steps required in creating charts in Excel.  
(c) Explain briefly the following as used in Excel worksheet
  - (i) Rows (ii) Columns (iii) Cells(d) Write out the formula required to sum the contents of Cell A1 to Cell A 50 (9mks)
3. Three samples of nine year old boys are selected from a grade school for the purpose of Testing physical training methods. Sample I was a control group and receive no special training. Sample II had 1 hour of work a day. Sample III had 30 minutes daily. At the end of two weeks, physical fitness test was administered to all groups, their scores are below.

Sample I	Sample II	Sample III
10	10	7
11	9	9
9	5	6
6	6	5
8	8	3
7	7	2

- (a) Is there any difference in the mean of the samples? (9mks)