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

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

**COURSE CODE:** GRY 222
**COURSE TITLE:** STATISTICS FOR GEOGRAPHERS I

**INSTRUCTION:** Answer any four questions
**TIME ALLOWED:** 2 hrs

1. Using specific examples distinguish clearly between any three of the following pairs of concepts:

   a. Descriptive and Inferential Statistics

   b. Class mark and Class boundaries

   c. Class size and Class interval

   d. Quantitative and Qualitative Statistics

2. Four residential buildings each were randomly selected in Kpakungu in Minna to determine room density. The following results were obtained 9, 5, 10 and 16.

   a. Using chi-square technique, examine whether the room density varies in size from one residential building to another;

   *Note:* Alpha level = 0.07 (df) 3 = 28.14

3. Enumerate and explain the various steps of Data classification.

4. At the Federal University of Technology, Minna, Department of Geography, grades are given the following numerical values:

   A = 5,    B = 4,    C = 3,    D = 2,    E = 1

   R (reference) = 0,    F (fail) = 0

Suppose Muhammed wants to calculate his grade point average (GPA) in Geography for a semester, if his scores are as follow:

| Course | Grade | Units |
|--------|-------|-------|
| Gry 311 | 57 – C | 3 |
| Gry 313 | 68 – B | 2 |
| Gry 315 | 70 – A | 3 |
| Gry 317 | 84 – A | 3 |
| MET 311 | 47 – D | 2 |
| MET 313 | 42 – E | 3 |
| REM 311 | 32 – R | 2 |
| REM 313 | 14 – F | 2 |

a. Compute Muhammad's GPA;

b. Discuss the relative advantages and disadvantages of using each of the following measures of central tendency in data presentation:

    (i) Mean       (ii) Median       (iii) Mode

5. When two unbiased dice are tossed, the theoretical frequencies for the 2-12 are as follow:

| Total (x): | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------------|---|---|---|---|---|---|---|---|----|----|----|
| Frequency (f): | 1 | 2 | 3 | 4 | 5 | 6 | 5 | 4 | 3 | 2 | 1 |

Using the information above, calculate the following:

(i) the variance       (ii) the standard deviation

6. Write short note on any three of the following:

(i) Sampling frame     (ii) Sampling unit     (iii) Sampling elements

(iv) Population