



MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS
2018/2019 ACADEMIC YEAR
THIRD YEAR FIRST SEMESTER**

**SCHOOL OF TOURISM AND NATURAL
RESOURCE MANAGEMENT
BACHELOR OF EDUCATION (ARTS) AND
BACHELOR OF ARTS (GEOGRAPHY)**

**COURSE CODE: GEO 3122
COURSE TITLE : QUANTITATIVE METHODS IN
GEOGRAPHY**

DATE: FRIDAY 14TH DECEMBER 2018

TIME: 1430-1630HRS

INSTRUCTIONS TO CANDIDATES

Answer **ALL** questions in section A and any other **TWO** in section B.

This paper consists of 3 printed pages. Please turn over

SECTION A (30 MARKS)

1. (a) Briefly, explain the functions of statistics in the contemporary society. **(10 marks)**
- (b) Describe the various classifications of statistical data. **(10 marks)**
- (c) Explain the various types of scale of measurement stating their properties clearly **(10 marks)**

SECTION B (40 MARKS) (ANSWER ANY 2 QUESTIONS)

2. (a) Describe three types of sampling. **(10 marks)**
- (b) Given below are the number of tools produced by workers in a factory.

| | | | | | | | | | |
|----|----|----|----|----|----|----|----|----|----|
| 43 | 18 | 25 | 18 | 39 | 44 | 19 | 20 | 20 | 26 |
| 40 | 45 | 38 | 25 | 13 | 14 | 27 | 41 | 42 | 17 |
| 34 | 31 | 32 | 27 | 33 | 37 | 25 | 26 | 32 | 25 |
| 33 | 34 | 35 | 46 | 29 | 34 | 31 | 34 | 35 | 24 |
| 28 | 30 | 41 | 32 | 29 | 28 | 30 | 31 | 30 | 34 |
| 31 | 35 | 36 | 29 | 26 | 32 | 36 | 35 | 36 | 37 |
| 32 | 23 | 22 | 29 | 33 | 37 | 33 | 27 | 24 | 36 |
| 23 | 42 | 29 | 37 | 29 | 23 | 44 | 41 | 45 | 39 |
| 21 | 21 | 42 | 22 | 28 | 22 | 15 | 16 | 17 | 28 |
| 22 | 29 | 35 | 31 | 27 | 40 | 23 | 32 | 40 | 37 |

Construct frequency distribution with inclusive type of class interval. **(4 marks)**

Use it to find:

- i. How many workers produced more than 38 tools? **(3 marks)**
- ii. How many workers produced less than 23 tools? **(3 marks)**
3. (a) Discuss the concept of statistics according to Croxton and Cowden. **(10 marks)**
- (b) A sample of 50 students is to be drawn from a population consisting of 600 students belonging to two institutions A and B. The number of students in the institution A is 200 and the institution B is 400. How will you draw the sample using proportional allocation? **(10 marks)**
4. (a) Discuss the different types of geographical data. **(10 marks)**
- (b) Different types of data can be collected for different purposes. Discuss the validity of this statement in the light of quantitative methods. **(10 marks)**
5. Discuss the application of statistics in the following disciplines.
- a) Industry. **(4 marks)**
 - b) Agriculture. **(4 marks)**
 - c) Planning. **(4 marks)**
 - d) Medicine. **(4 marks)**
 - e) Modern applications. **(4 marks)**

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