THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

MAIN EXAMINATION

AUGUST - DECEMBER 2016 TRIMESTER

FACULTY OF ARTS AND SOCIAL SCIENCES

DEPARTMENT OF SOCIAL SCIENCES

REGULAR PROGRAMME

SEC 208: BASIC ECONOMIC STATISTICS

Date: DECEMBER 2016	Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and ANY other TWO Questions

Q1. The hypothetical age distribution in years of a group of Kajiado County residents is given in the table below.

Age Bracket (Yrs)	Cumulative Frequency
1-10	8
11-20	18
21-30	38
31-40	63
41-50	101
51-60	149
61-70	179
71-80	195
81-90	199
91-100	200

(Table 1: Age Distribution in Kajiado County. December, 2016)

1. Derive the missing variable on the above table   **(5 Marks)**
2. Construct the associated histogram   **(15 Marks)**
3. Derive the associated polygon   **(8 Marks)**
4. Suggest one use of a frequency polygon   **(2 Marks)**

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Q2.   Using the following set of data:

Scores	60 - 64	55-59	50 - 54	45 - 49	40 - 44	35-39	30 - 34	25 -29	20 - 24	15-19
Frequency	2	2	6	8	12	14	24	12	12	16

(Table 2: Statistics Scores. December, 2016)

a) Find the average using the assumed mean method   **(8 Marks)**
b) Calculate the median value for the above data   **(6 Marks)**
c) Calculate the mode of the above data set   **(6 Marks)**

Q3. Using the data below, find:
a) First and third Quartiles   **(6 Marks)**
b) Quartile Deviation   **(6 Marks)**
c) Tenth Percentile and Ninetieth Percentile   **(6 Marks)**
d) What is the size of the class interval in this distribution   **(2 Marks)**

Marks	No. of Students
45-49	8
50-54	18
55-59	38
60-64	63
65-69	101
70-74	149
75-79	179
80-84	195

(Table 3: Student's Average Marks. December, 2016)

Q4.   a)   Using examples, explain the difference between measures of Central
Tendency and Measures of dispersion   **(6 Marks)**

X	25	24	23	22	21	20	19	18	17	16
F	1	2	3	6	11	16	7	9	8	2

b) Calculate the standard deviation of the data above   **(10 Marks)**
c) Calculate the variance of the above data   **(4Marks)**

Q5. a) Describe two data presentation tools   **(6 Marks)**
    b) Describe two data summary tools   **(8 Marks)**
    c) Describe categories of measures of central tendency   **(6 Marks)**

END

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