# TECHNICAL UNIVERSITY OF MOMBASA
## *Faculty of Business & Social Studies*

DEPARTMENT OF MEDIA & GRAPHIC DESIGN

UNIVERSITY EXAMINATIONS FOR DEGREE IN
BACHELOR OF JOURNALISM & MASS COMMUNICATION

## BMC 4319: STATISTICS FOR MASS COMMUNICATION

SUPPLEMENTARY/SPECIAL EXAMINATIONS
**SERIES:** MARCH 2014
**TIME:** 2 HOURS

## INSTRUCTIONS:

– Answer Question **ONE (Compulsory)** and any other **TWO** questions.
*This paper consists of Three printed pages*

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**QUESTION 1 (Compulsory)**

**a)** An analysis of access time to a computer disc system was made during the running of a particular computer program, which utilized disc file handling facilities. The results of the 120 access time were as follows:

| Access time in milliseconds | Frequency |
|---|---|
| 30 but less than 35 | 10 |
| 35 but less than 40 | 12 |
| 40 but less than 45 | 9 |
| 45 but less than 50 | 8 |
| 50 but less than 55 | 3 |
| 55 but less than 60 | 2 |

**Required:**

i) Determine the mean access time for the program. **(5 marks)**
ii) Determine the standard deviation of the access time for this program. **(5 marks)**
iii) Interprete for your supervisor, who is not familiar with grouped data, what the results of post (a) and (b) means. **(5 marks)**
iv) What are advantages of grouped data? **(5 marks)**

**b)** Distinguish between inferential statistics and descriptive statistics. **(10 marks)**

## QUESTION 2

Below is a data of a number of orders received for a number of weeks in printing media of standard group.

| Number of orders received | Number of weeks |
|---|---|
| 5 – 9 | 1 |
| 10 – 14 | 7 |
| 15 – 19 | 10 |
| 20 – 24 | 12 |
| 25 – 29 | 6 |
| 30 – 34 | 2 |
| 35 – 39 | 0 |
| 40 – 44 | 1 |
| 45 - 49 | 1 |

**Required:**
**a)** Draw a histogram for the above frequency distribution. **(5 marks)**
**b)** Draw a pie-chart for the above data. **(5 marks)**
**c)** Apart from histogram and pie-chart, which other means of presentation of data can use, name and explain. **(10 marks)**

## QUESTION 3

Write short notes on the following:
a) Primary data
b) Secondary data
c) Systematic sampling
d) Qualitative data
e) Quantitative data

**(20 marks)**

## QUESTION 4

Age at marriage in 2010 (first marriage)

| Age (years) | Males '000' | Female '000 |
|---|---|---|

| | | |
|---|---|---|
| Under 20 | 20 | 60 |
| 20 and under 25 | 30 | 40 |
| 25 and under 30 | 10 | 20 |
| 30 and under 35 | 15 | 10 |
| 35 and under 40 | 6 | 4 |
| 40 and under 45 | 5 | 3 |
| 45 and over | 3 | 2 |

**Required:**
Find for both distribution the
a) Mean
b) Mode
c) Median
d) Quartile deviation                                                                    **(20 marks)**

## QUESTION 5

The following are sales and expenditure incurred by media department in printing journals from the year 2009 – 2013

| Year | Expenditure (sh. '000') | Sales ('000') |
|---|---|---|
| 2009 | 5 | 8 |
| 2010 | 6 | 10 |
| 2011 | 14 | 12 |
| 2012 | 9 | 8 |
| 2013 | 4 | 2 |

**Required:**
a) Compute co-efficient of correlation.                                                  **(10 marks)**

b) Calculate regression equation of sales on expenditure and hence find sales when expenditure is sh. 10,000.                                                                                 **(10 marks)**