TECHNICAL UNIVERSITY OF MOMBASA
School of Business

DEPARTMENT OF ACCOUNTING & FINANCE

DIPLOMA IN BUSINESS ADMINISTRATION
DIPLOMA IN ACCOUNTANCY

BAC 2103: BUSINESS STATISTICS

END OF SEMESTER EXAM

SERIES: JUNE/JULY 2017

TIME: 2 HOURS

INSTRUCTIONS:

- This paper consists of **FIVE** questions.
- Answer question **ONE (Compulsory)** and any other **TWO** questions.
- Do not write on the question paper

This paper consists of Four printed pages.

QUESTION 1 (Compulsory)

a) From the data below locate graphically:
   i) Median
   ii) Q1
   iii) Q3
   iv) D4
   v) P25

Class	Frequency
10 – 20	15
20 – 30	18
30 – 40	23
40 - 50	30
50 – 60	13
60 – 70	8
70 - 80	6

(10 marks)

b) Describe the methods of collecting primary data. **(10 marks)**

c) Using examples where necessary distinguish between the following pair of statistical terms:
   i) Histogram and frequency polygon **(2 marks)**
   ii) Descriptive and Inferential statistics. **(2 marks)**
   iii) Negatively and positively sketched distribution **(2 marks)**
   iv) Absolute error and relative error. **(2 marks)**
   v) Discrete and continuous random variables. **(2 marks)**

QUESTION 2

a) From the data below find:
   i) The regression equation of economics on statistics. **(3 marks)**
   ii) The regression equation of statistics on economics. **(3 marks)**
   iii) The coefficient of correlation between marks in economics and statistics. **(2 marks)**
   iv) The most likely marks in statistics when the marks in economics are 30. **(2 marks)**

Marks in Economics (x):	25	28	35	32	31	36	29	38	34	32
Marks in statistics (y)	43	46	49	41	36	32	31	30	33	39

b) From the following information, draw a pie-chart: **(10 marks)**

Sector	Income (Million)
Agriculture	380
Industry	240
Trade	160
Other sectors	180

QUESTION 3

a) Construct the chain base index numbers from the following data:

Year	2002	2003	2004	2005	2006	2007
Prices (shs.)	120	125	140	150	135	160

b) State **FIVE** advantages and of index method. **(5 marks)**

c) Write short notes on the following:
   i) Fixed based method **(3 marks)**
   ii) Price relatives **(2 marks)**

QUESTION 4

a) Calculate:
   i) Arithmetic mean **(3 marks)**
   ii) Mode **(3 marks)**
   iii) Median **(2 marks)**
   iv) The standard deviation **(4 marks)**

Marks	5	10	15	20	25	30	35	40	45	50
Frequency	2	4	7	7	5	4	3	9	7	6

b) Discuss the uses of statistics to a business organization. **(8 marks)**

QUESTION 5

a) From the following observations prepare a frequency distribution table starting with 5 – 10 (Exclusive method

b)

Marks in Mathematics

12	36	40	30	28	20	19	10	10	16
19	27	15	26	20	19	7	45	33	21
26	37	6	20	11	17	37	30	20	5

(10 marks)

c) Briefly explain **FIVE** statistical methods. **(10 marks)**