TECHNICAL UNIVERSITY OF MOMBASA

SCHOOL OF BUSINESS

DEPARTMENT OF MANAGEMENT SCIENCE

DIPLOMA IN PROCUREMENT AND MATERIALS MANAGEMENT
DIPLOMA IN LOGISTICS AND TRANSPORT MANAGEMENT
DIPLOMA IN HUMAN RESOURCES MANAGEMENT
DIPLOMA IN BUSINESS ADMINSTRATION
DIPLOMA IN BUSINESS MANAGEMENT
DIPLOMA IN ACCOUNTANCY
DIPLOMA IN SALES AND MARKETING

BAC2103: BUSINESS STATISTICS

END OF SEMISTER EXAMINATIONS

SERIES: MAY 2016

TIME: 2HOURS

INSTRUCTIONS

This paper contains **FIVE** questions .Answer question **ONE (COMPULSORY)** and any other **TWO** questions

1a) what are the main characteristics of statistical data? (5 marks)

b) Briefly explain **FIVE** importances of statistics. (10 marks)

c) ABC ltd. are producers of three products namely biscuits, bread and cakes. The sales for a period of four months were-;

Month	**biscuits**	**Bread**	**cakes**	**totals**
January	50	80	40	170
Feb.	60	100	50	210
March	70	110	60	240
April	90	120	50	260

Required draw

i. a simple bar chart (2.5 marks)
ii. a component bar chart (2.5 marks)
iii. a multiple bar chart (2.5 marks)
iv. a pie chart for bread (2.5 marks)

d) Calculate the arithmetic mean from the following data

marks	5 10 15 20 25 30 35 40 45 50
Frequency	20 43 75 67 72 45 39 9 8 7

(5marks

2a) the following are sales of xyz ltd for the years 2009 and 2010

	2009	2010
January	400	420
February	480	450
March	420	600
April	580	640
May	600	580
June	800	700
July	750	800
August	600	750
September	550	600
October	500	480
November	600	550
December	900	950

Construct a z chart for the year 2010 (10 marks)

2b) Calculate the standard deviation from the following distribution

X 12 13 14 15 16 17 18 20

f 4 11 32 21 15 8 5 4 (10maks)

3a) Calculate the values of quartile 1(Q1), quartile 3(Q3) and docile 3(D3) from the following data

marks	0-10	10-20	20-30	30-40	40-50	50-60	60-70	70-80
no of students	2	7	21	25	30	35	28	12

(10maks)

3bi) Draw a histogram from the data given and superimpose frequency curve on it (5marks)

Marks	**No. of students**
0-10	7
10-20	8
20-30	9
30-40	15
40-50	20
50-60	18
60-70	16
70-80	13
80-90	10
90-100	4

bii)

4a) from the following data calculate index numbers for the year 2001 taking 2001 as the base year and using the following formulae

i) laspeyres
ii) paasches
iii) fishers
iv) marshall-edgeworth (12marks)

	2000		2001	
	Price in sh.	quantity in bags	Price in sh.	quantity in bags
Maize	65	20	135	30
Wheat	95	8	160	7
Beans	150	5	320	8

b) Calculate the arithmetic mean of the students marks

Marks	**no of students**
0-20	5
20-40	7
40-60	13
60-80	8
80-100	7

(8 marks)

5a) Calculate the median from the following frequency distribution data (10 marks)

Grade	50-59	60-69	70-79	80-89	90-99	100-109	110-119
Frequency	7	81	192	312	218	82	18

B) Explain briefly any **FIVE** sampling techniques used in statistics (10 marks)