



TECHNICAL UNIVERSITY OF MOMBASA
Faculty of Business & Social Studies

DEPARTMENT OF BUSINESS STUDIES

DIPLOMA IN PROCUREMENT AND MATERIALS MANAGEMENT

BAC 2103: BUSINESS STATISTICS

SPECIAL/SUPPLEMENTARY EXAMINATIONS

SERIES: FEBRUARY 2015

TIME: 2 HOURS

INSTRUCTIONS:

- This paper consists of **FIVE** questions.
- Answer question **ONE (Compulsory)** and any other **TWO** questions.

This paper consists of Three printed pages.

QUESTION 1 (Compulsory)

- a) Explain **FOUR** roles of statistics in planning and control of business. **(8 marks)**
- b) The following data pertain to weekly wages of some labourers.

Weekly wages (Ksh.)	450 - 540	550 – 640	650 - 740	750 - 840	850 – 940	950 - 1040
No. of labourers	13	19	25	20	18	15

Calculate

- i) Mean wage **(3 marks)**
- ii) Mode **(3 marks)**
- iii) Standard Deviation **(3 marks)**
- iv) Coefficient of skewness. **(3 marks)**
- c) Distinguish between the following terms:
- i) Continuous variable and discrete variable **(3 marks)**
- ii) Tabulation and classification of data **(3 marks)**
- iii) Qualitative classifications and Quantitative classifications. **(4 marks)**

QUESTION 2

- a) Table 2 gives ages of husbands and wives at the time of marriage.

Table

Ages of husbands in years	23	26	30	42	48	50
Ages of wives in years	18	20	24	32	36	39

Required:

- i) Product moment coefficient of correlation. **(8 marks)**
- ii) Regression equation of ages of wives on husbands. **(6 marks)**
- b) State the meanings of the following terms:
- i) Positive correlation **(2 marks)**
- ii) Negative correlation **(2 marks)**
- iii) Curvilinear correlation **(2 marks)**

QUESTION 3

The table below shows the distribution of marks obtained by DPMM students in Statistics Continuous Assessment Test (CAT)

Marks	10 - 19	20 – 29	30 - 39	40 - 49	50 - 59	60 - 69
No. of students	5	10	15	13	9	6

- a) Draw an ogive representing the given information. **(10 marks)**
- b) Estimate from the graph the median. **(2 marks)**
- c) The position of the student who got 55 marks. **(2 marks)**
- d) State **SIX** advantages of median as a measure of central tendency. **(6 marks)**

QUESTION 4

- a) Outline limitations of index numbers. **(6 marks)**
- b) The following table shows the number of insurance policies by class of businesses issued by an insurance company during the year 2008 to 2011.

Policy type	2008	2009	2010	2011
Life	24	27	32	31
Motor	42	37	31	29
Household	10	14	21	28
Others	7	5	8	7

Required:

Draw a company bar chart to illustrate the data.

(14 marks)

QUESTION 5

- a) Highlight features of a good questionnaire. **(6 marks)**
- b) Construct a consumer price index number from table 3 given below: **(14 marks)**

Table 3

Group	Index for 1990	Expenditures
Food	550	46%
Clothing	215	10%
Fuel/lightening	220	7%
Housing rent	150	12%
Miscellaneous	275	25%