TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Business & Social Studies

DEPARTMENT OF HOSPITALITY & TOURISM

DIPLOMA IN TOURISM MANAGEMENT
(DTM S13)

BAC 2201: QUANTITY TECHNIQUES

SPECIAL/SUPPLEMENTARY EXAMINATIONS

SERIES: FEBRUARY 2015

TIME: 2 HOURS

INSTRUCTIONS:

- This paper consists of Sections **A** and **B**.
- Section **A** is **Compulsory**. Answer any **TWO** questions in Section **B**.
- Mobile phones are not allowed into the examination room.
- Cheating leads to disqualification.
- ***This paper consists of Three printed pages.***

SECTION A (Compulsory) 30 Marks

QUESTION 1

a) Explain the following concepts: **(10 marks)**

i) Standard deviation
ii) Mean deviation
iii) Variation ratio
iv) Arithmetic mean
v) Variance

b) Identify **THREE** types of data used in quantitative analysis matching them to their appropriate statistics for measuring central tendancy. **(10 marks)**

c) Explain the attribute of the mean as a measure of central tendency, on what type of distribution is the mean most suited as a measure of central tendancy. **(10 marks)**

SECTION B (Answer any **TWO** questions) **40 Marks**

QUESTION 2

a) The following weights were obtained from consolidated for Miss Mombasa Country beauty contents. **(10 marks)**

45	52	42	43	42	58	42
42	52	41	42	44	56	40
50	51	42	53	55	55	39

i) What is the mode for the above set of weights. **(2.5 marks)**
ii) What is the mean for scores. **(2.5 marks)**
iii) What is the range for the scores. **(2.5 marks)**
iv) What is the median in the set. **(2.5 marks)**

b) State the general form of an equation of a best line fit and outline its components. **(10 marks)**

QUESTION 3

a) Describe the **FIVE** methods that would use in presenting quantitative data. **(10 marks)**

b) Using the data below, estimate a regression model indicating both the Y intercept and slope of the best fit line

Period t	**Time (t)**	**Bed occupancy (%)**
1	1999	75
2	2000	78
3	2001	74
4	2002	80
5	2003	82
6	2004	85
7	2005	83

QUESTION 4

a) By use of a graphical illustration discuss the salient attributes of a normal distribution. **(10 marks)**

b) In correlation analysis, what does the correlation coefficient tell us? **(5 marks)**

c) Using graphical illustration show a linear negative distribution of variable X and Y. **(5 marks)**

QUESTION 5

The data below shows the measurement between weight and the waist size for beauty contestants at the concluded Miss Mombasa Content.

ID	1	2	3	4	5	6	7	8	9	10
Weight (Kg.)	45	42	50	52	53	45	51	54	41	49
Waist (cm)	29	26	31	32	36	28	30	37	27	32

a) Draw a scatter plot of the data above. **(5 marks)**

b) Compute the correlation coefficient between the scores obtained. **(10 marks)**

c) Comment on the magnitude and direction of association between weight and waiste size measurements for the contestants. **(5 marks)**