



UNIVERSITY OF EMBU

2017/2018 ACADEMIC YEAR

TRIMESTER EXAMINATIONS

SECOND YEAR EXAMINATION FOR THE DEGREE OF BACHELOR OF COMMERCE

DMS 201: BUSINESS STATISTICS I

DATE: AUGUST 8, 2018

TIME: 11:00AM-1:00PM

INSTRUCTIONS:

Answer Question ONE and ANY Other TWO Questions.

QUESTION ONE (30 MARKS)

- a) What is the probability of getting a 5 or 6 in the rolling of a die (3 marks)
- b) Discuss the role of statistics in Business (5 marks)
- c) Explain five types of probability sampling methods (5 marks)
- d) Compute the Geometric Mean of the following values of x

x	4.5	250.5	12	119.5	30	42.0	75	35.4
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(6 marks)

- e) Find the median of the following data

x	6.7	6.2	8.4	6.9	7.1
f	2	5	7	8	7

(5 marks)

- f) Explain three demerits of the median (6 marks)

QUESTION TWO (20 MARKS)

- a) Discuss the five main characteristics that are considered essential for measure of central tendency (10 marks)

- b) Find the coefficient of correlation for the following 10 sample observation and interpret the answer:

x	5	7	8	4	9	3	2	5	4	3
y	2	4	5	5	6	5	4	4	3	2

(10 marks)

QUESTION THREE (20 MARKS)

- a) The table below gives the distribution of 500 firms in an industry according to sales volume.

Calculate the arithmetic mean of the sale.

(10 marks)

Sale in '000' shillings	0-500	500-1000	1000-1500	1500-2000	2000-2500	2500-3000	3000-3500	3500-4000	4000-4500
Number of firms	3	24	55	98	120	95	51	39	15

- b) 100 bulbs were found to be defective in a lot of 800 bulbs. Find the probability that a bulb selected is not defective (2 marks)
- c) Discuss characteristic and functions of statistics (8 marks)

QUESTION FOUR (20 MARKS)

- a) i) Prepare a frequency table for the following reported weight (in Kilograms) of 40 managers in Nairobi. NB. The data is continuous. (6 marks)

47, 75, 64, 65, 62, 50, 74, 73, 55, 53, 79,
57, 61, 59, 65, 45, 69, 60, 61, 56, 46, 65, 71,
60, 52, 80, 52, 70, 66, 72, 82, 55, 68, 54, 67, 72, 60, 68, 70, 58

- ii) What is the mean weight? (4 marks)
- b) Explain the steps that would follow when undertaking a research study (10 marks)

QUESTION FIVE (20 MARKS)

- a) Calculate the standard deviation of the following data. (10 marks)

Class	1-3	3-5	5-7	7-9	9-11	11-13	13-15
Frequency	1	9	25	35	17	10	3

- b) Explain the merits and demerits of mean deviation (10 marks)

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