



KENYATTA UNIVERSITY
UNIVERSITY EXAMINATIONS 2019/2020
FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF
SCIENCE (REAL ESTATE MANAGEMENT)
BRE 211: REAL ESTATE STATISTICS II

DATE: WEDNESDAY 11TH DECEMBER 2019

TIME: 2.00 P.M. – 4.00 P.M.

INSTRUCTIONS:

ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS FROM SECTION TWO

SECTION 1: COMPULSORY (30 MARKS)

QUESTION ONE

- a) Discuss any FIVE functions of statistics (10 marks)
- b) With the help of definition, differentiate between sample and population (2 marks)
- c) Discuss the term descriptive statistics (4 marks)
- d) For the data set given below, construct a grouped frequency distribution table and sketch the bar graph (12 marks)

56, 58, 62, 62, 69, 48, 71, 71, 72, 55, 56, 51, 65, 64, 59, 60, 61, 49, 65, 70, 66, 58, 62, 67, 59, 62, 64, 63, 48, 52, 54, 74

- e) Discuss the term Data Organization as used in the definition of statistics. (2 marks)

SECTION 2: ANSWER ANY TWO QUESTIONS (40 MARKS)

QUESTION TWO

- a) Discuss the term regression as a statistical procedure (3 marks)
- b) Explain two types of hypothesis (3 marks)
- c) Using the Least Squares method, determine the equation of line of best fit for the data set given below and find the value of y when the value of x = 7 (14 marks)

INVOLVEMENT IN EXAMINATION IRREGULARITY SHALL LEAD TO DISCONTINUATION

X	6	10	12	14	16	18	22	24	26	32
Y	40	44	46	48	52	58	60	68	74	80

QUESTION THREE

- a) For the data set given below on income and housing ownership in Kiambu County, compute the
- Mode (2 marks)
 - Mean (4 marks)
 - Median (3 marks)
 - Variance and Standard deviation (4 marks)
 - 65th percentile and 3rd quartile (6 marks)

Income (kshs)	91-98	99-106	107-114	115-122	123-130	131-138	139-146	147-154
Frequency	2	6	4	5	18	7	4	4

- b) Differentiate between class limits and class boundaries (1 mark)

QUESTION FOUR

- Discuss the term correlation (3 marks)
- Briefly outline the four steps of hypothesis testing (4 marks)
- From a survey done on a simple random sample of residents in Nairobi County on housing purchase, the results are as shown in the contingency table below

Housing purchase	Low	High	Totals
Easy	10	42	52
Hard	33	15	48
Totals	43	57	100

Is the loan accessibility and housing purchase related for the 100 cases at 5% significance level?

Use the χ^2 (chi-squared) test to determine this. Take χ^2 (critical) = 3.841 (13 marks)

QUESTION FIVE

- a) State and explain FOUR random/probability sampling methods (10 marks)
- b) The average monthly income of 300 people in Kileleshwa ward is Kshs 70,000 and the standard deviation is Kshs 8,000. Assuming the income to be normally distributed, determine how many people
- i. Pay a rent of between Kshs 54,000 and Kshs 78,000 (2.5 marks)
 - ii. Pay a rent of between Kshs 62,000 and Kshs 94,000 (2.5 marks)
 - iii. Pay a rent of between Kshs 46,000 and Kshs 86,000 (2.5 marks)
 - iv. Pay a rent of more than Kshs 86,000 (2.5 marks)