



EMBU UNIVERSITY COLLEGE

(A Constituent College of the University of Nairobi)

2015/2016 ACADEMIC YEAR

SECOND SEMESTER EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE DIPLOMA IN PROCUREMENT

BBA 110: BUSINESS STATISTICS

DATE: APRIL 5, 2016

TIME: 02:00-04:00

INSTRUCTIONS:

Answer Question ONE and ANY Other TWO Questions.

QUESTION ONE

- a) With the help of appropriate examples, define the following terms as used in statistics.
- i) Variables
 - ii) Constants (4 marks)
- b) Describe any three advantages of primary data in statistics. (3 marks)
- c) Explain reasons why sampling is important in data collection. (4 marks)
- d) Suppose a dairy farmer gets 10, 20, 8, 14, 16, 18, 12, & 42 litres of milk from his dairy cows every week, find the mean volume of milk obtained per week. (3 marks)
- e) Describe four properties of a normal distribution. (4 marks)
- f) Identify and explain four factors that need to be taken into consideration when constructing price index numbers. (8 marks)
- g) Give four advantages of standard deviation as a measure of dispersion. (4 marks)

QUESTION TWO

- a) Workers in a given factory earned the daily wages on a weekly basis. The following table shows the wages earned.

Daily wages in kshs	No of workers
30-34	5
35-39	8
40-44	10
45-49	6
50-54	3
55-59	2

- i) Calculate the mean wage for the industry. (4 marks)
ii) Find the median wage. (5 marks)
iii) The modal class of the wages. (1 mark)
- b) Discuss the merits and demerits of using the median as a measure of central tendency. (10 marks)

QUESTION THREE

- a) The data below relates to information about maize, wheat, and beans between 1989 and 1996. Use it to calculate the index numbers for 1996 taking 1989 as the base year and using the following formula;
- i) Laspeyre's
ii) Paasche's
iii) Fisher's (10 marks)

	1989		1996	
	Price(shs)	Quantity(bags)	Price(shs)	Quantity(bags)
Maize	65	20	135	30
Wheat	95	8	160	7
Beans	150	5	320	8

b) Define briefly the following terms as used in probability theory.

i) Random experiment

ii) Events

iii) Mutually exclusive events

iv) Equally likely events

v) Conditional probability

(10 marks)

QUESTION FOUR

a) The data below relates to mass in grams of gold found in a certain mine. From it, calculate the coefficient of variation. (10 marks)

Mass(grams)	110- 119	120- 129	130- 139	140- 149	150- 159	160- 169	170- 179	180- 189
frequency	5	7	12	20	16	10	7	3

b) Explain the various statistical methods used to deal with complex and numerical data. (10 marks)

QUESTION FIVE

a) Explain the various ways in which statistics can be useful to a business organization. (10 marks)

(10 marks)

b) Explain the various steps in constructing a consumer price index. (10 marks)

(10 marks)

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