



MACHAKOS UNIVERSITY

University Examinations for 2019/2020 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF BUSINESS ADMINISTRATION

SECOND YEAR SECOND SEMESTER EXAMINATION FOR

DIPLOMA IN EDUCATION

BBA 0200: BUSINESS STATISTICS

DATE: 19/10/2020

TIME: 2:00 – 4:00 PM

INSTRUCTIONS:

Answer Question one and any other two Questions.

QUESTION ONE (30 MARKS)

- a) Distinguish between ordinal and nominal data (4 marks)
- b) Discuss two types of statistics (6 marks)
- c) Giving relevant examples to illustrate your answer differentiate between primary data and secondary data. (6 marks)
- d) Discuss the importance of statistics to a teacher (6 marks)
- e) Explain two sampling methods that can be used to collect a sample. (6 marks)

QUESTION TWO (20 MARKS)

The following data relates to marks obtained by some 40 students in a math examination

52	61	33	78	41	52	55	42
63	74	78	52	43	51	50	74
38	62	33	42	52	52	54	58
47	52	34	33	52	41	58	47
38	34	42	52	43	42	41	45

Regents:

- a) Construct a frequency table (5 marks)
- b) Using the table above; compute:
- i. Arithmetic mean (5 marks)
 - ii. Weighted mean (5 marks)
- c) Determined the mode (5 marks)

QUESTION THREE (20 MARKS)

The table below shows marks obtained by 12 class five students in two different subjects in a given term.

Student	Math	History
1	44	73
2	62	59
3	45	51
4	51	43
5	70	72
6	58	29
7	75	62
8	55	61
9	40	53
10	52	66
11	70	58
12	43	52

Required: compute the coefficient of correlation using:

- a) Pearson product moment method (10 marks)
- b) spearman's coefficient of rank correlation (10 marks)

QUESTION FOUR (20 MARKS)

The following table shows marks distribution in a class of 79 students

Marks more than	0	10	20	30	40	50	60	70	80
No. of students	15	14	10	8	8	7	3	10	4

- a) Calculate the Karl Pearson coefficient of skewness from the following data (15 marks)
- b) Comment on the nature of the data (5 marks)

QUESTION FIVE (20 MARKS)

- a) You have been given a basket containing 15 lemons and 10 oranges, and told to pick 6 items at random: Calculate the probability that:
- i. 4 Lemons and 2 oranges are picked (8 marks)
 - ii. All the picked are lemons (6 marks)
- b) Assume you have been given 20 mangos to distribute to 8 children in a class. Calculate your degrees of freedom (6 marks)