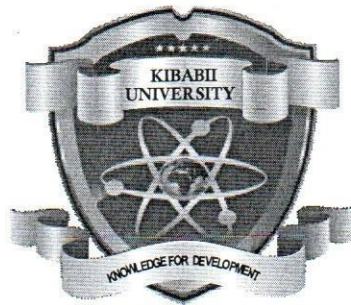


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KIBABII UNIVERSITY

**UNIVERSITY EXAMINATION
ACADEMIC YEAR 2021/2022**

SECOND YEAR SECOND SEMESTER REGULAR EXAMINATION

**MASTERS OF EDUCATION IN EDUCATIONAL MANAGEMENT AND POLICY
STUDIES / EDUCATIONAL PLANNING AND MANAGEMENT**

COURSE CODE: EPM914

COURSE TITLE: BASIC EDUCATIONAL STATISTICS

DATE: 24th MAY, 2022 TIME: 2:00-4:00PM DURATION: 2HOURS

INSTRUCTIONS TO CANDIDATES

Answer Question One (compulsory) and Any other TWO (2) Questions

1. These are the scores on a test of sensitivity to smell taken by 25 chefs attending a national conference:

96, 83, 59, 64, 73, 74, 80, 68, 87, 67, 64, 92, 76, 71, 68, 50, 85, 75, 81, 70, 76, 91, 69, 83, 75

Make:

- a) Make a grouped frequency table using intervals of 50–59, 60–69, 70–79, 80–89, and 90–99. [3 marks]
- b) Based on the grouped frequency table
 - i) Make a histogram [3 marks]
 - ii) Describe the general shape of the distribution. [2 marks]
- b) From the data in (a) above find the
 - i) mean, [3 marks]
 - ii) median, [3 marks]
 - iii) Mode [3 marks]
 - iv) standard deviation [3 marks]

KIBU observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over.



2. a) By the use of relevant examples, define the following terms as applied in statistics
- i) nominal scale [2 marks]
 - ii) Interval scale [2 marks]
 - iii) Ratio scale [2 marks]
 - iv) Explain the difference between the population and a sample for a research study. [2 marks]
 - v) Explain the difference between random sampling and haphazard sampling. [2 marks]
- b) Explain any Five sample selection techniques that produce a representative of the population [10 marks]

3. The table show the average number of hours students spend studying for classes each day in Kibabii University. Is the average number of hours dependent on the type of the student (Use chi-square with 5% significance level) [20 marks]

Student	0-2 hours	2-4 hours	4-6 hours
1 st year student	76	143	91
4 th year student	147	109	64

4. The following are marks obtained by postgraduate students in a university examination. Find rank correlation coefficient from the following data and interpret the results. [20 marks]

Individuals	A	B	C	D	E	F	G	H
Research Methods	55	60	45	40	52	39	38	65
Basic statistics	62	53	55	48	45	50	42	54

- 5 (a) (i) what is the difference between a numeric and a nominal variable? [2 marks]
 (ii) What is the difference between a discrete and a continuous variable? [2 marks]
 (iii) What is the difference between Descriptive statistics and inferential statistics [2 marks]
- (b) Explain to a person who has never had a course in statistics what is meant by [4 marks]
 (i) A symmetrical unimodal distribution
 (ii) A negatively skewed unimodal distribution
- (c) Describe and explain the difference between the mean, median, and mode. In which situation the median would be the preferred measure of central tendency. [4 marks]
- (d) Explain the importance of studying statistics in education [6 marks]