



UNIVERSITY EXAMINATION ACADEMIC YEAR 2020/2021

SECOND YEAR SECOND SEMESTER REGULAR EXAMINATION

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

COURSE CODE: EPM 821

COURSE TITLE: RESEARCH METHODS IN EDUCATION II

DATE: TIME: 8:00-11 AM

DURATION: 3 HOURS

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INSTRUCTIONS TO CANDIDATES

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

Question one

(20 marks)

- a) What are the steps in the education research process?
- b) Explain the criteria for selecting an Education research problem
- c) What is data analysis?
- d) By the use of relevant examples give two types of statistics?

Question two

(20 marks)

Given that the achievement test scores of some students in a course in the university are given below:

80, 61, 57, 52, 48, 46, 35, 59, 78, 66, 59, 51, 37, 57, 70, 63, 57, 50, 47, 59, 28, 25, 73, 64, 58,

47, 40, 25, 65, 55, 72, 48, 41, 28, 69, 55, 50, 45, 40, 24, 60, 63, 35, 71, 40, 45, 33, 31, 38, 36.

- (a) Using a class interval of 5, construct a frequency distribution table for the data.
- (b) Draw the histogram

Question three

(20 marks)

For the following scores: 32, 28, 24, 28, 28, 31, 35, 29, 26 find the:

- (a) Mean.
- (b) Median,
- (c) Variance, and
- (d) Standard deviation

Question four

(20 marks)

- a) By the use of relevant examples, briefly discuss the following terms as applied in statistics
 - i) Variable
 - ii) Theory
 - iii) Hypothesis
 - iv) Explain the difference between the population and a sample for a research study.
 - v) Explain the difference between random sampling and haphazard sampling. (10mks)
- b) Explain any Five sample selection techniques that produce a representative of the population (10Mks)

Question five (20 marks)

An educational researcher is interested in the relationship between students' participation in two after school programs and academic achievement. She states the following hypothesis in the description of her study:

- **H**₁. Children who participate in an after school program that emphasizes critical thinking skills will score higher on measures of academic achievement and self-esteem than students who participate in a program that emphasizes rote memorization.
 - (a) What are the variables in this study?
 - (b) What would be good names for the variables?
 - (c) Identify the independent variable(s) and dependent variable(s).
 - (d) Describe how each variable varies (i.e., whether the variable is categorical or continuous).
 - (e) Provide justification for why each variable varies the way you describe?