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University Examinations 2022/2023

FIRST YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR THE DEGREE OF
BACHELOR OF EDUCATION ARTS

EGE 3151: STATISTICAL TECHNIQUES AND MAP WORK IN GEOGRAPHY

DATE: AUGUST 2023

TIME: 2 HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions

QUESTION ONE (30 MARKS)

- a) Using relevant examples describe the following terms as used in statistical techniques in Geography;
- | | |
|-----------------|-----------|
| (i) Hypothesis | (2 marks) |
| (ii) Statistics | (2 marks) |
| (iii) Sample | (2 marks) |
| (iv) Variable | (2 marks) |
- b) Elucidate the importance of a map (8 marks)
- c) Using examples substantiate the difference between topographical map and geological map (6 marks)
- d) Compare and contrast the difference between the measures of central tendency and measures of dispersion (6 marks)
- e) Elucidate simple random sampling (2 marks)

QUESTION TWO (20 MARKS)

In an experiment, 50 people were asked to estimate the length of a rod to the nearest centimetre. The results were recorded as follows;

Length (cm)	20	21	22	23	24	25	26	27	28	29
Frequency	0	4	6	7	9	10	7	5	2	0

- Find the value of the median (2 marks)
- Calculate the mean length (4 marks)
- In a second experiment another 50 people were asked to estimate the length of the same rod. The most common estimate was 23 cm. the range of the estimates was 13cm. make two comparisons between the results of the two experiments (6 marks)
- Calculate the standard deviation (4 marks)
- Distinguish between sampling frame and sampling unit (4 marks)

QUESTION THREE (20 MARKS)

- Evaluate the term sampling as used in statistics and its advantage (10 marks)
- Using examples, compare contrast climatic map and topographical map (10 marks)

QUESTION FOUR (20 MARKS)

A sample of university students were asked their monthly expenditure on mobile plan (to the nearest dollar) and the responses were as follows;

Monthly cell phone plan cost (\$)	Number of Students
10 - 19	8
20 - 29	16
30 - 39	21
40 - 49	11
50 - 59	4

- Calculate the mode for mobile phone cost plan (2 marks)
- Calculate the standard deviation (8 marks)

- c) Assess the merits and demerits of standard deviation (10 marks)

QUESTION FIVE (20 MARKS)

- a) Discuss scale map? Using suitable examples distinguish between small scale and large scale map (10 marks)
- b) Examine the color as used in maps and their significance (10 marks)