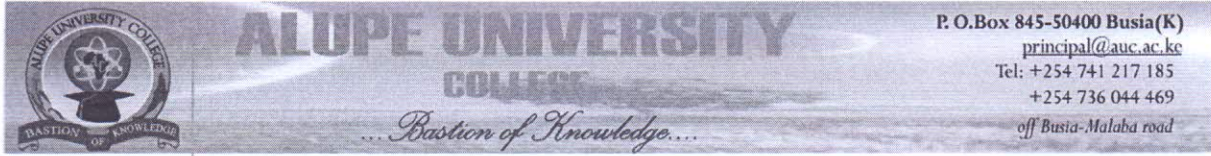


STH 313



OFFICE OF THE DEPUTY PRINCIPAL

ACADEMICS, RESEARCH AND STUDENTS' AFFAIRS

---

# UNIVERSITY EXAMINATIONS

## 2021/2022 ACADEMIC YEAR

THIRD YEAR SECOND SEMESTER REGULAR EXAMINATION

**FOR THE DEGREE OF BACHELOR OF HOTEL  
AND HOSPITALITY MANAGEMENT**

**COURSE CODE: STH 313**

**COURSE TITLE: STATISTICS AND DATA ANALYSIS**

**DATE: 7<sup>TH</sup> JUNE, 2022**

**TIME: 2.00PM – 5.00PM**

---

### INSTRUCTION TO CANDIDATES

➤ SEE INSIDE

THIS PAPER CONSISTS OF 4 PRINTED PAGES

PLEASE TURN OVER

**REGULAR - MAIN EXAM**

**STH 313: STATISTICS AND DATA ANALYSIS**

**STREAM BHH**

**DURATION: 3 HOURS**

---

**INSTRUCTIONS TO CANDIDATES**

- i. Answer Question **ONE** and any other **TWO** questions.*
- ii. Do not write on the question paper*

**SECTION A:**

**[30 marks]**

**Question one**

- a. Briefly explain the differences between the following terms:
  - i). Quantitative and qualitative variable **[4 marks]**
  - ii). Finite population and hypothetical population **[4 marks]**
  - iv). Descriptive and Inferential statistics; **[4 marks]**
  
- b. Identify **four** characteristics of statistics **[4 marks]**
- c. A random sample of 300 executive out of 2,500 employed by a large chain hotel showed that 270 would move to another location if it meant substantial promotion. Based on these findings, write a brief note to the top management regarding all executives in the hotel. **[4 marks]**  
**[5 marks]**
  
- d. Identify **five** key significances of statistics in the field of hospitality management **[5 marks]**

**QUESTION TWO**

Use the data below represents weights of 10 students sampled from university gymnasium in a certain day. 70, 57, 49, 74, 50, 81, 67, 58, 54, 81

Use the data to compute the following:

- a. Range **[2 marks]**
- b. Mean deviation **[3 marks]**
- c. Variation ration **[3 marks]**
- d. Variance **[4 marks]**
- e. Standard deviation **[5 marks]**

f. Quartile deviation

[3 marks]

**QUESTION THREE**

- a. What is the difference between data and information [4 marks]
- b. Highlight any six quality indicators that will help improve the credibility of your data [6 marks]
- c. Briefly explain the meaning of the following terms: discrete variables; continuous variables [4 marks]
- d. Identify three scales of measurements as applied in statistics [6 marks]

**QUESTION FOUR**

Use the data below and attempt to answer the questions that follow;

A sample of 50 hotels revealed the following sales

Sales (Ksh. Thousands)	Number of Hotels
100 up to 120	5
120 up to 140	7
140 up to 160	9
160 up to 180	16
180 up to 200	10
200 up to 220	3

- a) Estimate the mean sales [4 marks]
- b) Estimate the median sales [4 marks]
- c) What is the modal sales amount? [4 marks]
- d) Sketch and present data in a frequency polygon [8 marks]

**QUESTION FIVE**

The following is a table showing values for x and y variables

X	3	5	6	7	8	9
Y	3	7	9	12	13	15

**Required:**

- (i) Determine the regression equation in the form of  $y = a + bx$  [6 marks]
- (ii) Calculate the coefficient of determination [6 marks]
- (iii) Interpret the results [2 marks]
  
- iv) Explain briefly the methods of Pearson correlation and regression analysis [6 marks]

\*\*\*\*\*