



**ALUPE UNIVERSITY  
COLLEGE**

*Bastion of Knowledge...*

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**OFFICE OF THE DEPUTY PRINCIPAL  
ACADEMICS, RESEARCH AND STUDENTS' AFFAIRS**

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**UNIVERSITY EXAMINATIONS  
2020 /2021 ACADEMIC YEAR**

**...2.... YEAR .....1... SEMESTER REGULAR EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF BUSINESS  
MANAGEMENT**

**COURSE CODE: EDB 200**

**COURSE TITLE: BUSINESS STATISTICS IN EDUCATION**

**DATE:16/03/21**

**TIME: 2.00-5.00pm**

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## **INSTRUCTION TO CANDIDATES**

- Answer Question **ONE** and any other **TWO** questions
- Question ONE carries 30 marks

### **QUESTION ONE**

The data below on retirement benefits and number of retirees relates to Neflits Company;

Retirement benefits	10-20	20 -30	30 -40	40 -50	50 -60	60-70	70 – 80
No of retirees	10	12	14	17	15	13	9

- Calculate the mean **(2marks)**
- Calculate the median and mode **(6marks)**
- Calculate variance and Standard deviation of your frequency distribution **(6 marks)**
- Calculate geometric mean **(4 marks)**
- Calculate harmonic mean **(4 marks)**
- Explain the uses of probability in the modern business environment **(4 marks)**
- Discuss the uses of regression analysis **(4 marks)**

### **QUESTION TWO**

- Discuss four uses of computing index numbers **(4 marks)**
- The data given below indicates the prices and production of some horticultural products in Central Territory:

Produce	Production (1000 boxes)		Price per box (Shs)	
	1980	1990	1980	1990
	Cabbages	486	620	15
Tomatoes	220	374	22	31
Onions	470	614	18	20
Spinach	431	557	13	17

**Required:**

Calculate the increase or decrease in prices from 1980 on the basis of the following indices:

- a) Laspeyres index (4 marks)
- b) Paasche index (4 marks)
- c) Marshall – Hedge worth index (4 marks)
- d) Fisher's index. (4 marks)

**QUESTION THREE**

- a) Discuss three instruments of data collection (6 marks)
- b) Discuss five limitations of statistics (5 marks)
- c) From the data below calculate the product moment coefficient of correlation stating the relationship portrayed (9 marks)

X	10	20	25	30	35	40	45	55	60	65
Y	38	45	50	35	42	46	28	20	22	34

**QUESTION FOUR**

- a) Distinguish between correlation and regression analysis (4 marks)
- b) Define dispersion and explain the qualities of a good average (3 marks)
- c) Explain the various statistical methods (5 marks)
- d) Draw diagrams showing positive and negative skewness. (4 marks)
- e) Distinguish between classification and tabulation (4 marks)

### QUESTION FIVE

a) Using the least square method, calculate the regression equations of y on x from the following data:

x	15	25	35	45	55
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y	40	50	60	80	90
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**(12 Marks)**

b) Define the term classification and discuss its main object

**(8 Marks)**