


KISII UNIVERSITY
UNIVERSITY EXAMINATIONS
SECOND YEAR EXAMINATION FOR THE AWARD OF THE
DEGREE OF BACHELOR OF EDUCATION ARTS
SECOND SEMESTER 2021/2022
[JUNE-SEPTEMBER, 2022]

BUST 212: QUANTITATIVE METHODS IN BUSINESS

STREAM: Y2S2

TIME: 2 HOURS

DAY: TUESDAY, 9:00 – 11:00 AM

DATE: 13/09/2022

INSTRUCTIONS

- 1. Do not write anything on this question paper.**
- 2. Answer question ONE (Compulsory) and any other THREE questions.**

QUESTION ONE

- (a) Describe statistics as a data processing tool. (2 marks)
- (b) Distinguish between reliability and validity (4 marks)
- (c) (i) State advantages of a questionnaire as a data collecting tool (3 marks)
- (ii) We say that statistics thrives on numbers. Discuss, giving examples. (6 marks)
- (d) Explain five limitations statistics. (10 marks)

QUESTION TWO

- (a) Write short notes on the following:
 - (i) Time series
 - (ii) Moving averages (5 marks)
- (b) An analysis of representatives' car expenses shows that the expenses are dependent on the miles travelled (x_1) and the type of journey (x_2). the general form is:

$$y = a + b_1x_1 + b_2x_2$$

Calculations have produced the following values (where y is expenses per month)

$$y = \text{£}86 + 0.37x_1 + 0.08x_2$$

$$r^2_{x_1} = 0.78$$

$$r^2_{x_2} = 0.16$$

$$R = 0.88 \quad (10 \text{ marks})$$

QUESTION THREE

- (i) Briefly discuss the importance of probability and sampling in management. (4 marks)
- (ii) What do you understand by statistical distribution, and how is it important to management? (4 marks)
- (iii) Describe the various types of statistical distribution. (7 marks)

QUESTION FOUR

- (i) What is forecasting, and why do we need it in business? (3 marks)
- (ii) Briefly discuss the various forecasting techniques in business management. (12 marks)

Question five

- (a) Differentiate between regression and correlation. (4 marks)
- (b) Highlight practical areas in management where we use regression and correlation analysis. (11 marks)

QUESTION SIX

- (a) Highlight the functions of statistics. (6 marks)
- (b) Give practical applications of each of the above in real business environment (9 marks)