



MAASAI MARA UNIVERSITY
REGULAR UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR
FIRST YEAR FIRST SEMESTER

SCHOOL OF BUSINESS AND ECONOMICS
DIPLOMA IN BUSINESS MANAGEMENT

COURSE CODE: DBM 04

COURSE TITLE: QUANTITATIVE SKILLS

DATE:

TIME:

INSTRUCTIONS TO CANDIDATES

Question **ONE** is compulsory

Answer any other **THREE** questions

This paper consists of 3 printed pages. Please turn over.

QUESTION ONE

- a) State three characteristics of a normal probability distribution (3 marks)
- b) You are given the following information. Use it to compute index number of 1989 and 1991 using 1987 as the base year.

Year	1987	1988	1989	1990	1991	1992
Business bankruptcy	81,463	62,845	62,449	63,912	70,605	69,848

(4 marks)

- c) Outline three advantages of using questionnaires as a primary method of data collection (3 marks)
- d) Distinguish between the term measures of central tendency and dispersion (2 marks)
- e) Explain the reasons for doing sampling (6 marks)
- f) State four characteristics of a normal probability distribution (4 marks)
- g) Distinguish between census and sampling as used in statistics (3 marks)

QUESTION TWO

- a) Explain four assumptions of a binomial probability distribution (8 marks)
- b) A lot of 24 bulbs contains 25% defective bulbs. A bulb is drawn at random from the lot. It is found to be not defective and it is not put back. Now one bulb is drawn at random from the rest. What is the probability that the bulb is not defective. (7 marks)

QUESTION THREE

- a) Distinguish between regression analysis and correlation analysis as used in quantitative skills (5 marks)
- b) You are given the following scores for English and Maths.

ENGLISH(X)	56	75	45	71	62	64	58	80	76	61
MATHS(Y)	66	70	40	60	65	56	59	77	67	63

Use them to calculate a spearman rank order correlation (10 marks)

QUESTION FOUR

- a) State the seven stages of statistical investigation (7 marks)
- b) Explain clearly the four types of non-random sampling (8 marks)

QUESTION FIVE

a) Outline four factors that should be considered in computation of index numbers (8 marks)

b) Compute the mean, mode and median for the following grouped data

Length (mm)	Frequency
150-154	5
155-159	2
160-164	6
165-169	8
170-174	9
175-179	11
180-184	6
185-189	3

(7 marks)