



UNIVERSITY EXAMINATIONS

2ND SEMESTER 2023/2024 ACADEMIC YEAR

**FIRST YEAR EXAMINATION FOR THE DEGREE OF
BACHELOR OF PSYCHOLOGY**

**PSYC 125: STATISTICAL METHODS IN BEHAVIORAL
SCIENCES**

STREAM: R

TIME: 2 HRS

DAY: TUESDAY (11.30-1.30PM)

DATE: 16/4/24

THIS QUESTION PAPER CONSISTS OF THREE (3) PAGES

PLEASE DO NOT OPEN UNTIL THE INVIGILATOR SAYS SO.



INSTRUCTIONS: Answer question **ONE** and any **TWO** questions from **SECTION**.

QUESTION ONE (30 MARKS)

- a. Define the following terms used in research and Statistics.
- i. A Hypothesis (2Mks)
 - ii. Experimental research design (2Mks)
 - iii. Cross-sectional survey research (2Mks)
- b. i. Use the Data provided to calculate the Median (2Mks)
- (5 7 7 9 11 12 16 13)
- ii. Calculate the mean using the date provided (2Mks)
- (6, 20, 30, 5, 8, 15, 20, 16, 4, 6, 5)
- c. Explain the difference between a target population and a sample (4Mks)
 - d. Identify and explain the three main descriptive statistics (6Mks)
 - e. What is the importance of statistics in development? (6Mks)
 - f. Demonstrate your understanding of the Four Levels of Measurement (4Mks)

QUESTION TWO (20 MARKS)

- a. Analyze the different probability sampling techniques used by researchers. (10Mks)
- b. i. State any Two Experimental research designs (2Mks)
- ii. Discuss the varieties of survey research designs (8Mks)



QUESTION THREE (20 MARKS)

- a. Discuss the different types of variables used in statistics. (12Mrks)
- b. When selecting a sample, errors occur. What are the causes (8Mrks)

QUESTION FOUR (20 MARKS)

- a. Describe the various sections of a research report (10Mks)
- b. Explain the qualities of a good research topic (10Mks)

QUESTION FIVE (20 MARKS)

Mr. Michel grows two different types of apple plant in his farm. One week he keeps a record of the number of Mangos he picks from each type of plant.

Day	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Type A	5	5	4	1	0	1	5
Type B	3	4	3	3	7	9	6

- (a) With reasons, which measure would you use to argue that there is no difference between the two types of plants? (4Mrks)
- (b) Giving sufficient reasons, which measure would you use to argue that Type A is the best apple plant? (4Mrks)
- (c) Which measure would you use to argue that Type B is the best plant? Give reasons (4Mrks)
- (d) What are the two advantages of using the mean to interpret the score (4Mrks)
- (e) What conclusion could you make from the two types of apple plants (4Mrks)

