



PAN AFRICA CHRISTIAN UNIVERSITY
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
END OF SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF ARTS IN COUNSELLING PSYCHOLOGY
SEPTEMBER-DECEMBER 2024 SEMESTER

CAMPUS: ROYSAMBU

DEPARTMENT: PSYCHOLOGY

COURSE CODE: COU4113

COURSE TITLE: COUNSELLING STATISTICS

EXAM DATE: WEDNESDAY 4TH DECEMBER 2024

DURATION: 3 HOURS

TIME: 2:00PM-5.00PM

INSTRUCTIONS

- Read the instructions and questions carefully before you write the answers.
- Write your **STUDENT NUMBER** in the Answer Booklet given
- **Answer question 1 and any other TWO questions**
- *Write clearly and legibly.*
- *ALL PAC University's examination rules and regulations apply*
- *Round off your answers to the nearest 1 Decimal Place for all questions involving fractions.*
- *Show all your workings on the Answer Sheet*

QUESTION 1:

- a) Outline any three levels of measurement in statistics (3 marks)
- b) Describe two ways of reducing sampling error (4 marks)
- c) Differentiate between descriptive statistics and inferential statistics (4 marks)
- d) Distinguish between a false positive and a false negative in hypothesis testing (4 marks)
- e) Discuss the concept of Statistical Inquiry as a Cycle (5 marks)

QUESTION 2:

The following dataset relates to the number of counsellors who hired the Counselling Facility at the university over the semester.

Week	1	2	3	4	5	6	7	8	9	10	11
No. of counsellors	2	3	4	7	3	5	6	3	2	2	1

Calculate:

- a) Absolute skewness (4 marks)
- b) Quartile deviation (6 marks)

QUESTION 3

The following dataset relate to the number of patients discharged from a rehab center every month.

(2, 9, 11, 5, 4, 7, 10)

Compute:

- a) Interquartile Range (4 marks)
- b) Variance (6 marks)

QUESTION 4:

A counselling statistics student theorized that comic relief has healing properties. The student tested her theory by randomly asking seven colleagues about the number of times they watched comic shows in a day and their self-rating of mental health. She recorded her data as follows:

Comic relief frequency	5	2	5	4	3	3	6
Mental health score	4	1	7	4	4	3	8

- a) Calculate the mean comic relief frequency (2 marks)
- b) Determine the correlation coefficient between comic relief and mental health (5 marks)
- c) Interpret the correlation coefficient (3 marks)

QUESTION 5:

The following data is a record of the number of couples who attended premarital counselling at a local church in the last six months.

Ma y	Jun e	Jul y	Augu st	Septemb er	Octob er	Novemb er
10	2	4	5	1	4	6

- a) Calculate the standard deviation (5 marks)
- b) Compute Karl Pearson's coefficient of skewness (5 marks)