



PAN AFRICA CHRISTIAN UNIVERSITY
SCHOOL OF HUMANITIES AND SOCIAL SCIENCES
END OF SEMESTER EXAMINATION FOR THE DEGREE OF
BACHELOR OF ARTS IN COMMUNITY DEVELOPMENT
SEPTEMBER-DECEMBER 2025 TRIMESTER

CAMPUS: ROYSAMBU (PHYSICAL EXAM)

DEPARTMENT: COMMUNITY DEVELOPMENT

COURSE CODE: CDC 313.COM 301

COURSE TITLE: SOCIAL STATISTICS/COMMUNICATION STATISTICS

EXAM DATE: THURSDAY 11TH DECEMBER 2025

TIME: 2:00PM-4:00PM

DURATION: 2 HOURS

INSTRUCTIONS

- ❖ **Read the instructions and questions carefully before you write the answers.**
- ❖ Write your **student number** on the answer booklet provided.
- ❖ **Question one is compulsory choose any other two questions.**
- ❖ **ALL PAC University's examination rules and regulations apply**

QUESTION ONE: COMPULSORY

- a) Explain by use of relevant examples the application of social statistics in the society

- (5 Marks)
- b) Discuss the advantages of using primary data over secondary data in social research (5 Marks)
- c) For each of the following variables discuss the appropriate measurement scale
- i. Ethnic background (3 Marks)
- ii. Student assignment marks (2 Marks)
- d) By use of grouped data below

Class	1 - 15	16 - 30	31 - 45	46 -60	61 - 75	76 - 90	91 - 105
Frequency (f)	4	1	7	9	2	5	2

Required

- i. Calculate the Mean (5 Marks)
- ii. Calculate the Median (5 Marks)
- iii. Calculate the Mode (5 Marks)

QUESTION TWO

A sociologist was hired by a large city hospital to investigate the relationship between the number of unauthorized days that an employee is absent per year and distance in kilometers between home and work place for the employees. A sample of 10 employees were chosen and the following data was collected;

Distance to work (km) X axis	1	3	4	5	6	8	10	12	14	14
Number of days absent Y axis	8	5	8	7	6	3	5	2	4	2

Required

- a) Compute the regression equation $y = a + b$ of number of days absent on distance to work (8 Marks)

- b) Determine the number of days absent if the distance to work is 7 kilometers (2 Marks)

$$b = \frac{n \sum xy - (\sum x)(\sum y)}{n(\sum x^2) - (\sum x)^2}$$

$$a = \frac{\sum y - b \sum x}{n}$$

QUESTION THREE

- a) An insurance company has two claim assessors who must each give approval to customers who wish to log a claim for compensation. The manager currently has eight such customers and has asked each assessor independently to rank the customers claim in order of merit. The ranking are shown below

Customer	A	B	C	D	E	F	G	H
Assessor 1 ranking	4	6	2	1	5	8	6	3
Assessor 2 ranking	4	8	1	3	7	4	6	2

Required

- Calculate the rank coefficient of correlation of the two sets of ranking (8 Marks)
 - Comment on each of the results. (2 Marks)
- b) The weights of ten couples measured in Kgs are obtained below.

Husband	50	47	55	64	80	68	75	86	92	67
Wife	45	48	50	68	60	62	68	77	84	70

Required

Determine the rank correlation coefficient based on these data (5 Marks)

$$R = 1 - \frac{6 \sum d^2}{N(N^2 - 1)}$$

QUESTION FOUR

- a) Outline the three advantages and two disadvantages of mean as measure of data. (5 Marks)
- b) Below is a grouped frequency distribution table obtained by a social worker on the number of visits for some community work.

Number of visits	Frequency (f)
5 - 9	3
10 – 14	2
15 - 19	4
20 – 24	5
25 - 29	6
30 - 34	8
35 – 39	7

Required

Determine the following showing practical steps to the answers derived.

- i. Mean visits (3 Marks)
- ii. The standard deviation (7 Marks)

QUESTION FIVE

- a) With reasons, identify the most appropriate data collecting tool on each of the following:
 - i. Customer satisfaction in a given hotel (2 Marks)
 - ii. Students' performance in campus (2 Marks)
 - iii. Performance of a community activity (2 Marks)
 - iv. Traffic movement on the road (2 Marks)
 - v. Cultural beliefs of a given tribe (2 Marks)
- b) Differentiate between the following with an example in each case
 - i. Population and sample (2 Marks)
 - ii. Descriptive statistics and Inferential Statistics (3 Marks)