

# **MAASAI MARA UNIVERSITY**

# REGULAR UNIVERSITY EXAMINATIONS 2022/2023 ACADEMIC YEAR THIRD YEAR FIRST SEMESTER

## SCHOOL OF ARTS, HUMANITIES, SOCIAL SCIENCES AND CREATIVE INDUSTRIES. DEGREE IN COMMUNICATION AND JOURNALISM, AND PUBLIC RELATION.

### **COURSE CODE: SOC 3146-1**

### **COURSE TITLE: SOCIAL STATISTICS I.**

DATE: 2<sup>ND</sup> DECEMBER, 2022

TIME: 0830-1030

**INSTRUCTIONS TO CANDIDATES** 

Answer Question ONE and any other TWO questions This paper consists of Five printed pages. Please turn over.

#### **Question One**

- **a.** Differentiate the following terms
  - Descriptive and inferential statistics i.

Probability and non-probability sampling techniques (2 marks) ii.

- Snowball and quota sampling iii.
- **b.** Researchers do prefer survey over census, why? Explain
- c. In social statistics class, 50 students pursuing PR had a CAT mean score of 28 and 47 students pursuing Journalism had a CAT mean score of 31. What was the mean for the two classes combined? (3 marks)
- **d.** The following data are marks obtained in a class Marks: 20, 12, 28, 50, 30, 15, 40
  - Find the value of quartile deviation and its coefficient i. (4 marks)
  - ii. Find the value of mean deviation and its coefficient

#### **Question Two**

ii.

a. In survey of 50 university student, the weight in Kg was recorded as given in the table below:

| 42 | 49 | 44 | 57 | 51 | 46 | 48 | 47 | 56 | 58 |
|----|----|----|----|----|----|----|----|----|----|
| 54 | 59 | 49 | 52 | 54 | 54 | 40 | 46 | 37 | 48 |
| 58 | 45 | 39 | 41 | 43 | 45 | 34 | 51 | 63 | 49 |
| 42 | 51 | 64 | 46 | 41 | 42 | 40 | 49 | 57 | 38 |
| 47 | 62 | 61 | 32 | 57 | 39 | 41 | 58 | 43 | 41 |

i. Use the data to construct a continuous frequency distribution

|  | L L |
|--|-----|
| From the constructed table, compute the mode | (   |

- Compute the mean using the value obtained in (ii) to the nearest iii. whole number as the provision mean (3 marks)
- Calculate the variance and the standard deviation iv.
- (3 marks)

(2 marks)

(2 marks)

- (3 marks)

(4 marks)

- (5 marks)
- (4 marks)

### **Question Three**

- a. You have been appointed as one of the researchers by your county government to investigate the belief that public relation and communication skills plays an important role in county's general performance. Write a letter to the county government explaining the steps you will follow to assess this belief (9 marks)
- b. In the following situations, indicate whether a sample study or complete enumeration should be undertaken and why? (6 marks)
  - A firm wishes to estimate the longevity of 800 electric bulbs i. manufactured of a new design.
  - A tractor manufacturing company is interested in obtaining ii. information on customer preferences in respect of insurance that protect the driver from the sun and rain
  - A university has 600 lecturers. The administration wishes to determine iii. the acceptability of subscribing to online teaching platform

### **Question Four**

- a. Maasai Mara University has 200 lecturers. The administration wishes to determine the acceptability of subscribing to online teaching platform and decided to interview 50 lecturers. The administration asked you to guide them on how to pick the required sample size using;
  - i. Simple random sampling (3 marks) ii. Systematic sampling (3 marks) iii. **Convenience** sampling (2 marks) Can you advice the University to apply stratified sampling? Explain. iv. (2 marks) (5 marks)
- b. For the data below what is  $PR_5$ ? What is  $P_{70}$ ?

| Interval  | 10-12 | 7-9 | 4-6 | 1-3 |
|-----------|-------|-----|-----|-----|
| frequency | 9     | 16  | 6   | 4   |