

UGANDA MARTYRS UNIVERSITY
NKOZI

UNIVERSITY EXAMINATIONS

FACULTY OF SCIENCE

DEPARTMENT OF NATURAL SCIENCES

Bsc. Econ & Stat I

STATISTICAL ORGANISATION
STA1102

DATE: 12/12/2023
TIME: 2:00pm-5:00pm
DURATION: 3HRS

Instructions:

1. Carefully read through ALL the questions before attempting
 2. Questions 1 & 2 are comparosory and answer any (2) Questions
Each question carries equal marks
 3. No names should be written anywhere on the examination book.
 4. Ensure that your ID number is indicated on all pages of the examination answer booklet.
 5. Ensure your work is clear and readable. Untidy work shall be penalized
 6. Any type of examination Malpractice will lead to automatic disqualification
 7. Do not write anything on the questions paper.
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Question 1

Government wants to introduce 'Prosperity for all' project in Kasaana Sub County in Sheema District of which you are the project manager. You want to establish the baseline figures so that at the end of the project you can do an evaluation as to whether the project achieved intended objectives. The findings on the monthly incomes per household in '000' of shillings are presented as follows:

11	23	10	27	12	59	34	33	27	22
27	44	13	32	36	23	37	16	33	24
10	47	31	42	22	48	21	29	15	19
39	53	30	15	27	49	22	17	25	12
24	20	21	34	23	29	14	23	38	24
24	16	31	21	21	21	38	19	24	30
24	45	22	29	25	52	28	23	22	35
41	23	28	44	17	43	23	45	13	37

REQUIRED

- Starting with the group of 10 – 19, form a frequency distribution table for the above data. [10 marks]
- Compute mean, mode, median, and standard deviation for the above distribution. [10 marks]
- Draw a histogram representing the above data [5 marks]

Question. 2

A business firm from Sheema District saved money for investment in FY 2021/2022. The Management wanted to start two projects (I & II). Below are expected sales from the projects.

PROJECT I		PROJECT II	
SALES (\$)	Probability	SALES (\$)	Probability
4,000	0.25	9,000	0.15
8,000	0.60	5,000	0.60
10,000	0.15	6,000	0.25

The firm's profit is 90% of the sales.

Determine;

- i) the expected profit under each project. **[9 mrks]**
- ii) the project would you recommend to the management for the better returns. **[4 mrks]**
- iii) the standard deviation of the distribution of the profits for each project. **[9mrks]**
- iv) Which project is most risky and why? **[3 mrks]**

Question.3

(a) Define the following terms as applied statistical organization

- (i) Statistics
- (ii) Sample
- (iii) Sampling frame
- (iv) Sampling units **[10 marks]**

(b) State the relevancy of statistical department in any governmental or nongovernmental organization. **[15 marks]**

Question. 4

(a) Differentiate between a sample and a population **[5 marks]**

(b) What is sampling? **[5 marks]**

(c) Why is it important to carry out sampling? **[5 marks]**

(d) List and explain the methods of choosing a sample from the population. In each case give the examples **[10 marks]**

Question. 5

(a) What an organization chart? **[5 marks]**

(b) List the importance(s) of the organization chart to any departmental organization. **[10 marks]**

(c) Distinguish between measures of location and measures of variability. **[5 marks]**

(d) List the examples of each and show further with examples how they can be used. **[5 marks]**

Question.6

- (a) List and explain the methods of Data collection [5 marks]
- (b) Explain the stages of Data organization in statistical analysis. [5 marks]
- (c) What are the importance of pre-tests and Pilot surveys? [10 marks]
- (d) State the rules of Data coding. [5 marks]

END