



**MASINDEMULIROUNIVERSITY OF  
SCIENCE AND TECHNOLOGY**

**(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS**

**2021/2022 ACADEMIC YEAR**

**(SPECIAL/SUPPLEMENTARY EXAM)**

**SECOND YEAR SECOND SEMESTER**

**EXAMINATION FOR THE DIPLOMA IN SPORTS ADMINISTRATION  
AND MANAGEMENT/HEALTH PROMOTION AND HEALTH  
EDUCATION.**

**COURSE CODE: DSM 074/HSS 084**

**COURSE TITLE: STATISTICS**

**DATE: 03/08/2022**

**TIME: 2.00-4.00 P.M**

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**INSTRUCTIONS TO CANDIDATES**

**SECTION A IS COMPULSORY THEN ANSWER ANY TWO QUESTIONS IN SECTION B**

**TIME: 2 Hours**

**MMUST observes ZERO tolerance to examination cheating**

*This Paper Consists of 2 Printed Pages. Please Turn Over*





## SECTION A (COMPULSORY)

### QUESTION ONE

- a. Differentiate between:
- Inferential and descriptive statistics (2marks)
  - Type 1 error and type 11 error (2marks)
  - Null hypothesis and alternative hypothesis (2marks)
  - Qualitative and quantitative data (2marks)
- b. The following data is the prevalence's of COVID19 in Kakamega Central in the last 10 days. 10 20 22 15 25 18 20 28 32 40 with a  $(\sum X)^2$  of 49,284  
Using the above information find  $\sum X^2$  (5marks)
- c. Find X and Y so that the ordered data set has a mean of 43 and median of 35.5 the data is as follows 18, 20, 26, 29, X,36, 42,65, 70, Y (5 marks)
- d. Explain SIX advantages of probability sampling method (12marks)

### QUESTION TWO

The following data represent the Weight of 10 MMUST football players. 80 74 86 71 77 69 96 84 70 75 95, using the above data, calculate the flowing:

- Standard deviation (10marks)
- Variance (4marks)
- Range (6marks)

### QUESTION THREE

- a) The following observations represent cases of gonorrhoea in the last eight days within MMUST students. The median of the data is 25. 17, x, 24, x + 7, 35, 36, 46  
Using the above observation calculate.
- value of X (10marks)
  - mode (4marks)
  - mean (6marks)

### QUESTION FOUR

- State Five methods used in data collection (5marks)
- The mean of the set {27, 14, 11, 23, x} is 20. What is the mean of the set {x, 2x, 11, 8, 31}? (7marks)
- State four assumptions to use parametric test or non-parametric test (8marks)

### QUESTION FIVE

Determine the effects of exercise, medication and diet on Blood pressure

exercise	medication	diet
125	105	115
130	124	105
110	115	124

Use 0.05 as alpha level

- I. State  $H_0$  and  $H_1$  (4marks)
- II. Get critical value of F (6marks)
- III. Get the F statistics (8marks)
- IV. Interpret the results (4marks)