

WOMEN'S UNIVERSITY IN AFRICA



Addressing gender disparity and fostering equity in University Education

FACULTY OF SOCIAL AND GENDER TRANSFORMATIVE SCIENCES

BACHELOR OF SCIENCE HONOURS DEGREE IN PSYCHOLOGY

MAIN PAPER

PS 221: QUANTITATIVE RESEARCH METHODS

INTAKE 25: SECOND YEAR SECOND SEMESTER

DATE: 2020 TIME: 2 HOURS

INSTRUCTIONS TO CANDIDATES

1. Answer any **two** questions.
2. All questions carry equal marks.

Additional information

1. List of Formulae
2. Statistical tables to be provided

Question 1

- a) On what scale is the data and why?
- (i) Time taken to complete a test in minutes.
 - (ii) Scores on a motivation questionnaire.
 - (iii) Pleasantness of flight service on a Likert scale.
 - (iv) Numbers on jerseys of basketball players.
 - (v) Age in years of participants for a study. [15]
- b) The table below shows assignment marks for a course at a local college.

Assignment Scores	Bulawayo	Harare	Marondera	Mutare
75 - 100	2	4	1	1
60 - 74	12	24	13	15
50 - 59	8	12	7	7
30 - 49	4	2	3	3

- (i) On what scale is the data; [2]
- (ii) Find the mode; [3]
- (iii) Find the median; [4]
- (iv) Find the mean; and [6]
- (v) Draw a chart to illustrate the data. [10]

Question 2

- a) Using data below establish whether children show any preference for toy colour.
Red – 75; Blue- 64; Yellow- 34; Green- 38; Purple- 52; Orange- 48; Black- 31; Pink- 63; White- 68; Brown- 27. [24]
- b) Outline a data collection procedure useful for the above study. [6]

Questions 3

- a) Briefly describe sample attrition outlining the major reasons. [6]
- b)

Spiritual Intelligence	2	2	8	4	6	6	10	11	6	9	12	2
Family Resilience	3	1	6.5	5	3	6.5	12	9	10	8	11	3

Using the non-linear data above establish whether there is a positive relationship between the two variables. [24]

Question 4

- a) A clinical Psychologist claims that the median self- efficacy score is no better than 65. A random sample of 103 participants showed 72 had scores better than 65 and 28 had scores lower than 65. At $\alpha = 0.1$ verify the Clinical Psychologist's claim. [25]
- b) For the study above list the key ethical considerations to be adhered to. [5]

Question 5

- a) With the aid of a chart outline the properties of a normal distribution. [7]
- b) An Educational Psychologist claims that the average computer test score is less than 60. A random sample of 29 participants has a mean of 75 and a variance of 64. Verify the claim at $\alpha = 0.01$. [23]

END