

CHUKA



UNIVERSITY

**UNIVERSITY EXAMINATIONS**

**EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF ARTS  
(PSYCHOLOGY)**

**PSYC 301: STATISTICS IN BEHAVIOURAL SCIENCES**

**STREAMS:**

**TIME: 2 HOURS**

**DAY/DATE: TUESDAY 30/03/2021**

**2.30 P.M – 4.30 P.M**

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**INSTRUCTIONS:**

**Answer question one and any other two questions.**

**Do not write on the question paper**

**QUESTION ONE**

- (a) Describe the following types of statistics. [9 marks]
- (i) Descriptive statistics
  - (ii) Inferential statistics
  - (iii) Correlational statistics
- (b) Define the following concepts as used in statistics. [9 marks]
- (i) Population
  - (ii) Variable
  - (iii) Statistic
- (c) Discuss the four scales of measurement. [12 marks]

**QUESTION TWO**

- (a) The following data was generated from a research study.

Class	5-9	10 - 14	15 - 19	20 - 24	25 - 29	30 -34
Frequenc y	5	10	25	9	15	6

Determine ;

Mode [3 marks]

Mean [3 marks]

Median [4 marks]

Variance [4 marks]

Standard deviation [2 marks]

(b) Represent the following data graphically. [4 marks]

Depression	Anxiety	Paranoid	psychosis
65	80	45	20

**QUESTION THREE**

(a) The psychological conditions by gender of patients at Ijumaa hospital are recorded in the table below. Test the hypothesis that the psychological conditions are independent of gender given the critical value as 5.99. [12 marks]

	Schizophrenia	Bipolar	Anxiety
Male	40	30	10
Female	15	35	25

(b) Determine the rank order correlation coefficient for the data below. [8 marks]

Intelligence	55	15	20	47	38
Stress	24	80	63	91	49

**QUESTION FOUR**

(a) Compute the t-test statistic given the following information. [12 marks]

Experimental group	64	73	92	58	45	82
Control group	39	52	89	44	23	63

(b) Discuss any four assumptions of regression analysis. [8 marks]

