



PAN AFRICA CHRISTIAN UNIVERSITY

**END OF SEMESTER EXAMINATION FOR THE DEGREE OF
MASTER OF ARTS IN MARRIAGE AND FAMILY THERAPY**

MAY – AUGUST 2017

CAMPUS: ROYSAMBU

DEPARTMENT: PSYCHOLOGY

COURSE CODE: MFT601A

COURSE TITLE: STATISTICS IN MARRIAGE AND FAMILY THERAPY

EXAM DATE: THURSDAY 27th JULY 2017

TIME: 5.30PM-8.30PM

INSTRUCTIONS

- Read all questions carefully before attempting.
- Write your **student number** on the answer booklet provided.
- **Section A is Compulsory**
- **Answer any TWO questions in Section B**

SECTION A

(a) Explain the following terms as use in statistics:

- i. Sampling (3mks)
- ii. Population (3mks)
- iii. Regression (3mks)
- iv. Correlation (3ms)
- v. Hypothesis Testing (3mks)

(b) Explain the standard procedure followed in any hypothesis testing. (5mks)

SECTION B

Q1. With the help of practical examples explain the following sampling techniques.

- i. Simple random sampling (4mks)
- ii. Systematic sampling (4mks)
- iii. Stratified Sampling (4mks)
- iv. Multi-stage Sampling (4mks)
- v. Snow ball Sampling (4mks)

Q2. A family Therapist was interested in knowing the relationship between number of children and the amount of love between the couples. He collected the following data.

Family	Number of Children	Amount of Love (Time)
1	4	15
2	6	10
3	8	8
4	12	5
5	20	2

Required:

- i. Draw the scatter diagram and determine the relationship between the between the number of children and the amount of love in a family. (10mks)
- ii. Using the spearman's rank correlation coefficient determine the correlation between the two variables (10mks)

Q3 (a) distinguish between simple and multiple regressions. (4mks)

- i. A researcher collected the data on the number of divorces reported in the government offices. The data is given as follows.

10, 15, 25, 30, 28, 12, 18, 20, 12, 22

Compute the following measures of central tendency and dispersion

- (A) Mean (2mks)
- (B) Median (2mks)
- (C) Mode (2mks)
- (d) Standard deviation (4mks)
- (e) Variance (4mks)
- (f) Range (2mks)

Q4. A nutritionist wanted to know the relationship between gender and career advancement. The

Information collected was put in a contingency table prosecuted below.

Gender /Level of education	Primary	Secondary	Universities	Total
Male	50	30	20	100
Female	20	60	40	120
Total	70	90	60	220

Required: using X^2 Test the hypothesis that gender is independent of career advancement at 5 % level of significance. (20mks)