



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

INSTITUTIONAL BASED PROGRAMME (IBP) – DECEMBER SESSION
EXAMINATION FOR THE DEGREE OF MASTER OF EDUCATION (EARLY
CHILDHOOD STUDIES)
ECE 501: STATISTICS

DATE: Wednesday, 2nd May, 2012

TIME: 2.00 p.m. – 5.00 p.m.

INSTRUCTIONS:

Answer question **ONE** and any other **TWO** questions.

1. You have just come from the field after collecting your data. Discuss in detail all the operations you would perform on this data, so as to be able to make relevant comparisons and data analysis. (30 marks)
2.
 - a) State the conditions underlying the use of the Chi-Square Test. (6 marks)
 - b) Two research workers classified some people in income groups on the basis of sampling studies as follows:-

Investigator	Income groups			Total
	Poor	Middle	Rich	
A	160	30	10	200
B	140	120	40	300
Total	300	150	50	500

- a) Calculate the degrees of freedom. (2 marks)

- b) Test the effectiveness of this classification using the chi-square test at 95% confidence level. (12 marks)
3. a) Discuss the factors you would consider when estimating the sample size for this study. (10 marks)
- b) An event organizer would like to determine the percentage of participants who stay for a conference for more than 4 days. He wants to be confident that the percentage has been estimated to be within plus or minus 3% of the true value. What is the conservative sample size he needs for this? (10 marks)
4. a) Explain, using an example, the difference between “Confidence level” and “Significance level”. (4 marks)
- b) In an intelligent test administered to 1,000 children, the mean of the test was 100 and the standard deviation was 20. (16 marks)
- a) Find the number of children exceeding a score of 125
- b) Find the number of children who obtained a mark between 90 and 130.
- c) Suppose 5% of the lower end of the distribution are to be selected for an enrichment programme, what should be the cut off score?
5. a) Using some hypothetical data from an example of your own choice, differentiate between “Descriptive statistics” and “Inferential Statistics”. (20 marks)
- b) Briefly describe a hypothetical problem of study in early childhood, stating two null hypotheses and the respective alternative hypotheses. (8 marks)

