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(Knowledge for Development)

KIBABII UNIVERSITY

(KIBU)

**UNIVERSITY EXAMINATIONS
2018/2019 ACADEMIC YEAR**

**END OF SEMESTER EXAMINATIONS
YEAR 1 SEMESTER 1 EXAMINATIONS**

**FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY IN
(INFORMATION TECHNOLOGY)**

COURSE CODE : PIT 913

**COURSE TITLE : ADVANCED DATA
ANALYSIS**

DATE: 30/05/2021 TIME: 9.00 AM – 12.00 P.M

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTIONS ONE AND ANY OTHER TWO.

ALL QUESTIONS CARRY 20 MARKS EACH

QUESTION ONE(COMPULSORY)[20MARKS]

when dealing with univariate data, we are usually mostly concerned with the overall shape of the distribution. when we are dealing with a data set -*9that consists of two variables (that is, a bivariate data set), we are mostly interested in seeing whether some kind of relationship exists between the two variables and if so, what kind of relationship this is. plotting one variable against another is pretty straightforward.

Discuss some of the tools and transformations that can be applied to characterize the nature of the relationship between the two inputs.

QUESTION TWO[20MARKS]

Any comprehensive research process will analyze literature review as an activity which discusses published information in a particular subject area in a summative or a synthesis form. After selection of sources of literature specific and relevant to the field under study, there is need to organize the literature so that it communicates to the target consumer. Assess the validity of this statement.

QUESTION THREE [20MARKS]

Reliability and validity are concepts in it research used to evaluate quality of research. Reliability is concerned with the consistency of measure while validity is concerned with the accuracy of a measure.

Task. Discuss

QUESTION FOUR [20MARKS]

Inferential and predictive data analysis deal with drawing conclusions and making prediction about properties of a population based on information obtained from a sample.

Task: Explain at least five inferential and five predictive data analysis tools used to analyze data in it research.

QUESTION FIVE [20MARKS]

The research process in information technology consists of number of activities that overlap continuously rather than following a strict prescribed sequence. Identify an IT research topic with at least three objectives. Explain the type of data that will be analyzed in each objective.