NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY
FACULTY OF COMMERCE
DEPARTMENT OF FINANCE
BACHELOR OF COMMERCE HONOURS DEGREE IN FINANCE AND FISCAL STUDIES
PART II - 2nd SEMESTER SUPPLEMENTARY EXAMINATION – AUGUST 2009
RESEARCH METHODS IN FINANCE AND ECONOMICS [CFI 2205]
TIME ALLOWED: 3 HOURS

INSTRUCTIONS

1 Answer any four questions.
2 Each question carries 25 marks.
3 Write legibly.

QUESTION ONE [25 MARKS]

a. Distinguish between validity and reliability in research. (6 marks)

b. Describe how one can enhance the potential validity of a qualitative research project throughout the research process; that is, in

(i) creating a research design;
(ii) analyzing your data; and
(iii) writing up your findings (19 marks)

QUESTION TWO [25 MARKS]

(a) Explain how you would use the following sampling techniques.

(i) Judgment sampling.
(ii) Quota sampling
(iii) Snowball sampling (9 marks)

(b) Compare and contrast the pros and cons of systematic and stratified sampling designs. (16 marks)

QUESTION THREE [25 MARKS]

a. Discuss the significance of hypothesis testing in research (5 marks)

b. Outline the procedure for testing a hypothesis. (12 marks)

c Suppose that, on the bases of a sample, we want to test the hypothesis that the mean debt-to-total-assets ratio of companies that become takeover targets is the same as the mean debt-to-total-assets ratio of companies in the same industry that

do not become takeover targets. Explain under what conditions we would commit a Type I error and under what conditions we would commit a Type II error. (8 marks)

QUESTION FOUR [25 MARKS]

a Distinguish between heteroscedasticity and homoscedasticity. Explain why heteroscedasticity might be a problem in economic data? (12 marks)

b. With the use of an example, outline the significance of goodness of fit statistics in financial research. What are the problems associated with R^2 as a goodness of fit measure? (13 marks)

QUESTION FIVE [25 MARKS]

The Building Industries Association were analyzing the effect that mortgage interest rates have on a number of building contracts undertaken in the Harare Urban area. For 12 quarters randomly selected from the past 10 years, average mortgage rates have been collected. The number of buildings completed in the quarter after the chosen mortgage rate quarter was collected (to allow time for mortgage rates to affect building contracts issued. The data appears in the following table:

Mortgage rate (%)	**Building contracts undertaken**
16.00	443
16.75	448
17.00	367
17.50	492
18.25	384
18.75	437
19.00	356
19.50	339
19.75	365
20.25	321
20.75	338
21.25	230

(a) Produce a scatterplot to show the likely relationship between mortgage rates and building contracts completed. Comment on the diagram. (5 marks)

(b) Find the regression equation $y = a + bx$, using the method of least squares. (2 marks)

(c) If mortgage rates decreased from 18 to 16.5% in a given quarter, what effect would this be expected to have on the number of building contracts completed in the next quarter? (6 marks)

(d) Find the correlation between mortgage rates and building contracts. Comment on this finding. (12 marks)

QUESTION SIX [25 MARKS]

With the use of examples briefly explain the following types of data and further identify and justify the response strategy associated with each type of data.

(a) Nominal –scaled data (6 marks)

(b) Ordinal –scaled data (6 marks)

(c) Interval –scaled data (6 marks)

(d) Ratio – scaled data (7 marks)

QUESTION SEVEN [25 MARKS]

(a) Examine the importance of a review of related literature when conducting academic research. (10 marks)

(b) What key guidelines should assist a researcher when comparing and contrasting authors. (10 marks)

(c) Distinguish between parenthetical and notation systems of referencing. (5 marks)