



1st SEM.2012/2013

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UNIVERSITY OF SWAZILAND
SUPPLEMENTARY EXAMINATION PAPER

**PROGRAMME: B.Sc III in Agricultural Economics and Agribusiness
Management**

COURSE CODE: AEM 302

TITLE OF PAPER: INTRODUCTION TO ECONOMETRICS

TIME ALLOWED: TWO (2) HOURS

INSTRUCTION: ANSWER ALL QUESTIONS

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THE CHIEF INVIGILATOR**

QUESTION ONE

The following table shows how ten students arranged in alphabetical order were ranked according to their achievements in the class exercise and the final examination of an econometric course.

Class exercise	8	3	9	2	7	10	4	6	1	5
Final exams	9	5	10	1	8	7	3	4	2	6

- a. Can we infer from the above information that there is any marked relationship between achievements in class exercises and final exam? **(10 marks)**
- b. Interpret the following results obtained from samples on the relevant variables
 - (i) $r_{yx} = 0.89$ where Y = road accident; X = consumption of beer. **(5 marks)**
 - (ii) $r_{yx} = 0.95$ where Y = road accident; X = wages and salaries. **(5 marks)**

QUESTION TWO

The following table includes the price and quantity demanded of the product of a monopolist over a six-year period.

Year	2005	2006	2007	2008	2009	2010
Quantity('000 yards)	8	3	4	7	8	0
Price (E per yard)	2	4	3	1	4	5

- a. Estimate the demand function for the monopolist assuming this function is linear. **(20 marks)**
- b. Comment on the values of the estimated coefficients on the basis of economic theory. **(10 marks)**

QUESTION THREE

- a. What is meant by perfect multicollinearity and what are its effect? **(5 marks)**
- b. What is meant by high, but not perfect multicollinearity? What are the problems that may result. **(10 marks)**
- c. How can multicollinearity be detected and what can be done to overcome or reduce the problems resulting from multicollinearity? **(10 marks)**

QUESTION FOUR

- (a) What is meant by Heteroscedasticity? **(5 marks)**
- (b) Draw a figure showing homoscedaticity disturbances and various forms of heteroscedastic disturbances. **(10 marks)**
- © Why is heteroscedasticity a problem and discuss how can its presence be tested? **(10 marks)**