EC9100

THE UNIVERSITY OF WARWICK

May Examinations 2010/2011

Econometrics B

Time Allowed: 3 Hours.

Answer: THREE questions

Read carefully the instructions on the answer book provided and make sure that the particulars required are entered on each answer book.

- 1. Explain why a "spurious regression" problem may be present when estimating a relationship between non-stationary economic variables and discuss the consequences of this. Explain, giving economic illustrations, the concept of cointegration and how it can help to address this problem. Give a detailed description of the ADE unit-root test and its use in testing cointegration.
- 2. Explain tests that you could use to examine whether the coefficients in a regression equation exhibit structural change at a particular date. Discuss why it would be important for these tests that you also conduct other d'agnostic tests of the equation, and describe which additional tests would be useful. How would you test for structural that we have a list processor?
- 3. Explain, with reference to an empirical economic illustration, how you would formulate and estimate a suitable model for a binary choice facing a group of utility-maximising consumers. Describe how you would construct "marginal effects" to assist interpretation of the estimated model. How would you test the distributional assumption in the case of a probit model?
- 4. Explain the problem of endogenous selection and its consequences for the estimation of a regression equation. Describe a simple model for endogenous selection and explain how you would estimate it using a simple 2-step estimator. Discuss the issue of identification in models of this type.