

AFRICAN ECONOMIC RESEARCH CONSORTIUM

Collaborative MA Programme in Economics for Anglophone Africa (Except Nigeria)

JOINT FACILITY FOR ELECTIVES JULY – OCTOBER 2006

PUBLIC SECTOR ECONOMICS II

Second Semester: Final Examination

Duration: 3 Hours

Date: Friday, September 29, 2006

INSTRUCTIONS:

Answer **THREE** Questions; **TWO** Questions from **Section A** and **ONE** Question from **Section B**. Each Question Carries 20 Marks.

Allocate your time accordingly. Be brief and to the point.

SECTION A: Theory of Taxation

(Answer **TWO** Questions from this **Section**)

Question 1

- (a) Show the effect of an increase in interest rate to a borrower and a lender in a two-period inter-temporal model of consumption decision in a perfectly competitive market. **(11 Marks)**
- (b) Assess differences in effect of introduction of lump-sum tax, income tax and an indirect tax on present and future consumption of an individual in a two-period inter-temporal model of consumption decisions in a perfect market. **(9 Marks)**

Question 2

- (a) “The economy is an interdependent system in which all prices are related to each other. Changes in the price and quantity of one product or factor affect those of others. Households not directly involved in the taxed market may lose or gain, and those which are directly involved may become subject to further indirect effects”. Discuss, outlining the limitations of a partial equilibrium analysis compared to a general equilibrium analysis in the analysis of tax incidence. **(8 Marks)**
- (b) Using a two-sector general equilibrium analysis, Harberger (1962) demonstrates that a tax on return on capital in the corporate sector may be borne by all owners of capital, whether or not their capital is used in the corporate sector. Without stating the assumptions of the model, show that there are basically two effects (substitution and output effects) of the introduction of corporate tax on capital in the corporate sector. **(12 Marks)**

Question 3

- (a) What is the conclusion of *the Ramsey rule*? Show that in certain circumstances Ramsey rule result is attained when tax rates are set inversely proportional to the price elasticity of demand. **(12 Marks)**
- (b) “By suggesting that inelastically demanded goods should be taxed at relatively high rates, the *inverse elasticity rule* contrasts the fairness objective of taxation”. Discuss, giving suggestions on how distributional consequences of taxation can be considered. **(8 Marks)**

SECTION B: Tax Policy and Other Issues

(Answer **ONE** Question from this **Section**)

Question 4

There are three major principles of tax design, namely: equity, efficiency, and administrative feasibility.

- (a) Atkinson (1977) shows, using a targets-and-instruments assignment-type framework, how the problems of optimal design of direct and indirect taxation can be resolved to attain the first two major principles of tax design. Outline Atkinson's arguments and assess their practical importance **(10 Marks)**
- (b) What are consequences of tax evasion? Using a simple model of tax evasion demonstrate why the level of marginal tax rate, the level of marginal penalty rate and a probability of detection are important variables in curbing tax evasion. **(10 Marks)**

Question 5

- (a) What are the disadvantages of a decentralized system of government? **(8 Marks)**
- (b) 'You are a Minister for Finance and you would like to transfer funds in the form of grants from the Treasury to the local authorities specifically for increasing the provision of education services. There are only two options, to use unconditional non-matching closed grant or matching open-ended grant. Which grant would you choose among the two, and why? **(12 Marks)**