AFRICAN ECONOMIC RESEARCH CONSORTIUM

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

JOINT FACILITY FOR ELECTIVES (JFE) 2013

JUNE - SEPTEMBER

PUBLIC SECTOR ECONOMICS I

First Semester: Final Examination

Duration: 3 Hours **Date: Monday, August 5, 2013**

INSTRUCTIONS:

1. This examination has **SIX QUESTIONS**.
2. You are required to attempt **FOUR QUESTIONS** in total.
3. Question 1 is **COMPULSORY**.

Question 1 (COMPULSORY)

(i) With reference to specific examples, briefly discuss three instances where private provision of a public good may overcome the free rider problem. **[5 marks]**

(ii) Discuss the two main propositions of Coase Theorem and explain why the theory may fail to deal with environmental externalities in your country. **[5 marks]**

(iii) "A Pareto efficient allocation must always be socially desirable". Discuss, using appropriate diagrams to support your answer. **[5 marks]**

(iv) Outline both the necessary and sufficient conditions for public sector intervention in the economy of your country. **[5 marks]**

(v) Explain briefly how a large government deficit can affect the future economic growth of your country. **[5 marks]**

Question 2

(i) What is the intuition behind the notion of Ricardian equivalence? How might you look for evidence to test the suggestion that people account for future generations' tax burdens by saving more today? **[10 marks]**

(ii) Using your country as an example, critically examine any two countervailing effects of government spending on economic growth. **[10 marks]**

(iii) When local telephone companies wish to raise the rates they charge to phone customers, they must first argue their case at a public hearing before a regulatory body. How does the free rider problem explain why telephone companies are usually successful in getting permission to raise their rates? **[5 marks]**

Question 3

One hundred commuters need to use a strip of highway to get to work. They all drive alone and prefer to drive big cars—it gives them more prestige and makes them feel safer. Bigger cars cost more per mile to operate, since their gas mileage is lower. Worse yet, bigger cars cause greater permanent damage to roads. The weight of the car is w. Suppose that the benefits from driving are $4w$, while the costs are $(3/2)w^2$. The damage to roads is $(1/3)w^3$. Assume that individuals have utility functions of the form $U = x$, where x is the net benefits from driving a car of a given size.

(a) What car weight will be chosen by drivers? **[5 marks]**

(b) What is the optimal car weight? If this differs from a, why? **[10 marks]**

(c) As a public sector economist you have been consulted by the city authorities to design a toll system that causes drivers to choose the optimal car weight. Advice the authorities on how to design such a system and how it would work. **[10 marks]**

Question 4

By using diagrams and examples, explain the differences between the following market failures: Negative Consumption Externality and Positive Production Externality. In each instance, explain why the market fails and recommend at least one possible policy action to correct the market failure. **[25 marks]**

Question 5

There is vast empirical evidence of the private benefits from education: people with more education tend to have higher earnings. Explain, then, why education at all levels, including higher education, is subsidized by the governments of many sub Saharan African countries. **[25 marks]**

Question 6

Public sector expenditure in sub-Saharan African countries has risen from about 18% of GDP in the 1980s to about 30% of GDP in the most recent period. Critically examine the underlying reasons for the growth of public expenditures in sub-Saharan Africa. **[25 marks]**