

This paper is not to be removed from the Examination Halls

UNIVERSITY OF LONDON

279 0022 ZA

BSc degrees and Diplomas for Graduates in Economics, Management, Finance and the Social Sciences, the Diploma in Economics and Access Route for Students in the External Programme

Public Economics

Wednesday, 7 June 2006 : 10.00am to 1.00pm

Candidates should answer **FIVE** of the following **EIGHT** questions: **TWO** from Section A and **THREE** from Section B. All questions carry equal marks.

PLEASE TURN OVER

SECTION A

Answer **both** questions from this section.

1. Answer **three** of the following questions.
Define and briefly describe the following:
 - (a) the Samuelson rule.
 - (b) an equivalence scale.
 - (c) the Median voter theorem.
 - (d) the minimal state.
 - (e) ordinal level comparability of utility.
 - (f) tax overlap.

2. Answer **three** of the following questions.
Briefly demonstrate:
 - (a) market unravelling in an insurance market.
 - (b) the inefficiency of private provision of a public good.
 - (c) the Pareto efficiency of competitive equilibrium.
 - (d) the welfare loss due to monopoly with rent-seeking.
 - (e) that the highest skilled individual should face a marginal rate of income tax equal to zero.
 - (f) how bureaucracy leads to excessive government expenditure.

SECTION B

Answer **three** questions from this section.

3. Given the problem of adverse selection and the ability of insurance companies to discriminate, what should be the role of the state in financing medical insurance?
4. What limits the redistribution that can be achieved using an income tax? Should the income tax be supported by other tax instruments in order to achieve redistributive aims?
5. What is the Tiebout hypothesis? Why does it fail when there is a small number of potential communities? What are the policy implications of this result?
6. 'When countries are merged into an economic union the incentive to engage in tax competition is reduced.' Discuss this statement, paying particular attention to policy implications.
7. Apply the concept of rent-seeking to analyze why the US government made the policy decision to refuse to ratify the Kyoto protocol.
8. There are two consumers. Consumer h , $h = 1, 2$, has income M_h and preferences represented by $U_h = \log(x_h) + \log(G)$, where x_h is the consumption of a private good and G is consumption of a public good. Let τ_h be the share of the cost of the public good met by h , with $\tau_1 + \tau_2 = 1$.
 - (a) Show that if they act honestly consumer h will announce a level of demand for the public good given by $G_h = \frac{M_h}{\tau_h}$.
 - (b) Show the Lindahl equilibrium shares are $\tau_h = \frac{M_h}{M_1 + M_2}$, and find the equilibrium level of public good.
 - (c) Prove that the solution in (b) satisfies the Samuelson rule.
 - (d) Assume that consumers can announce false demand functions. In particular, consumer h can announce demand function $G_h = \frac{M_h}{\alpha_h \tau_h}$. Find the Nash equilibrium values of α_h and interpret this solution.

END OF PAPER