

MASTER OF ARTS EXAMINATION, 2025

(2nd Year, 1st Semester)

ECONOMICS

Course : PG/Eco 308

Public Economics I

Time : 2 Hours

Full Marks : 30

Answer *any three* questions.

1. (a) Explain the standard Samuelson condition for optimal public good provision and its derivation.

(b) How does this condition change in the presence of distortionary taxation (e.g., indirect taxes)? Explain the intuition behind the changes.

(c) Illustrate graphically how the transformation frontier between private and public goods changes when moving from a lump-sum tax regime to a distortionary tax regime. Explain the implications of this shift for the optimal quantity of the public good. 3+4+2+1=10

(2)

2. Explain how the salience of taxes (whether the tax is included in the final price shown to consumers) affects consumer demand for goods, particularly in the context of sales taxes and excise taxes. 10

3. Explain the concept of deadweight loss arising from commodity taxation. Derive the formula for deadweight loss and discuss its relationship to the price elasticity of demand. Then, explain the inverse elasticity rule for optimal commodity taxation, deriving the rule and discussing its implications for tax policy. What are the limitations of this rule and under what conditions does it apply? 1+3+3+3=10

4. Carefully explain Dalton's principle of transfers. How does it differ from the Pareto criterion for evaluating welfare improvements? Carefully explain marginal social cost of funds (MSCF). Explain the two components of MSCF i.e. Distributional Characteristics (DC) and Marginal Efficiency Cost of Funds (MECF). How does each component reflect different aspects of a tax reform's welfare implications? Discuss the role of social welfare weights (β_h) in the MSCF calculation. What are the advantages and limitations of using Dalton's principle as a basis for assessing tax reforms? 1+1+1+2+2+1+2=10

5. (a) Describe the key features of the Harberger (1962) two-sector model. What are the crucial assumptions underpinning this model?

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(3)

(b) Explain substitution effects and output effects in the Harberger model. How do these effects influence the ultimate incidence of a tax?

(c) Discuss how the relative capital intensity of different sectors affect the distribution of the tax burden across factors of production (capital and labour). 1+2+1+2+4=10

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XX24(113)—70

(3)

(4)

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