KENYATTA UNIVERSITY
SCHOOL OF ECONOMICS
APPLIED ECONOMICS DEPARTMENT
EAE 313: PUBLIC FINANCE
SECOND SEMESTER 2019/2020 EXAMINATIONS

DSV02

Moderated

Instructions: Answer Question One and any other Two Questions *Time: 2 hours*

Question ONE

a) In most cases, Public Finance assumes that governments are omniscient and altruistic bodies striving to lead the economy to equitable and efficient outcomes where private markets fail to do so. This is obviously an unrealistic assumption. Explain five points why it is unrealistic assumption. 10 marks

b) Using relevant examples differentiate between the following pair of terms:

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i) Congestible and impure goods. 3 marks

ii) Direct and indirect benefits. 2 marks

iii) Tax Incidence and Tax Burden. 2 marks

IV) Privatization and Nationalization. 3 marks

d) Mau forest is facing the possibility of depletion as a common good, explain the options that the government could use to ensure proper management of the forest. 10 marks

QUESTION TWO

A) Consider an economy with two consumers, Ben and Joe. There is public good in this economy in a form of tornado sirens. Ben's demand for tornado sirens is given by P = 10 - Q, and Joe's demand for tornado sirens is P = 8 - 2Q. The marginal cost for providing tornado sirens in the markets is constant at MC = 9.

Required

i. Is there a potential for free-rider problem? Explain 2 marks
ii. Derive market demand curve for sirens. 3 marks
iii. How many sirens will be provided in the market? 4 marks
iv. What will be the price for these sirens? 3 marks

B) State FOUR consequences of the growth of public expenditure in a country. 8 marks

QUESTION THREE

a. Jennifer and Joe are neighbors. Jennifer grows crops, and Joe raises cows. If there is no intervention, the cows will eat some of Jennifer's crops. The marginal benefits to Joe of holding the cows are given by 500-2Q with Q being the number of cows. The marginal private costs are constant at Kshs 100. The marginal damage to Jennifer is Kshs 50.

i. How many cows will Joe hold if he maximizes his profit? 5 marks
ii. What would be the socially optimal number of cows? 3 marks
iii. What would be the optimal Pigouvian tax rate? 2 marks

iv. Instead of introducing such a tax, a fence could be built around Joe's land for Kshs X, eliminating the externality. What is the maximum amount of money Joe would be willing to pay for such a fence? 3marks

b) Highlight 7 properties for a good Public Budget. 7 marks

QUESTION FOUR

a) A monopolist demand function is given by;

$P=Q^2-10Q+28$ and cost function;

$C=Q^2$.

If the firm is causing pollution to the society valued at $C=3Q$,

Required

i. Solve for the social optimal level of output and price. (7 marks)

ii. Explain 3 ways in which the public sector should intervene to ensure the social optimum level of output and price. (3 marks)

iii. Calculate the dead weight loss in the absence of pollution. 5 marks

b) You have been hired as a consultant on public finance issues by your county government. One of your major tasks is to advise the county executives on how to contain the public expenditure. Carefully explain five canons of public expenditure; you would apply in carrying out the assignment. 5 marks

QUESTION FIVE

a) The government has increased VAT on some commodities in order to raise revenue. The market for commodity X was at equilibrium before tax at price Ksh. 50 per unit sold and the quantity was 5000 units. Suppose own price elasticity of demand is 0.6 and the elasticity of supply is 1.1. After the government announced tax measures the new market price increased to Ksh. 70 per unit.

i. Calculate the equilibrium price and quantities after tax (2 marks)

ii. Calculate the seller and buyers burden (9 marks)

iii. Explain the above (ii) results (2 marks)

b) With specific reference to Wagner's theory and the Peacock-Wiseman's Political Constraint Model, describe how they lead to growth of public expenditure in East African countries. 7 marks