

CENTRAL UNIVERSITY



RE-SIT EXAMINATION: 2016/2017

FACULTY OF ARTS AND SOCIAL SCIENCES

DEPARTMENT OF ECONOMICS

PUBLIC SECTOR ECONOMICS (3 CREDITS)

LEVEL 300

DURATION: 2 HOURS

STUDENT ID No.....

INSTRUCTIONS

ANSWER QUESTION 1 AND ANY TWO OTHER QUESTIONS

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THE INVIGILATOR**

LECTURER: KWABLAH EDMUND

ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS

QUESTION ONE

A. Prove that the Excess Burden of a percentage tax (t) on a commodity is equal to
 $A = \frac{1}{2} \Omega * P * Q * t^2$

Where Ω is the absolute value of the price elasticity of demand facing the commodity, P is the before tax equilibrium price of the commodity, Q is the before tax equilibrium quantity of the commodity and t is the percentage tax rate on the commodity [10 marks]

B. The Demand and supply of “Joy Daddy Bitters” a locally produced alcoholic drink in a hypothetical market is represented as follows:

$$Q_d = 130 - 2P$$

$$Q_s = -5 + 0.4P$$

Where Q_d and Q_s are the demand and supply curves respectively. Suppose the government imposes an excise tax of 4.50 per bottle on the producers of the bitters.

- (i) Calculate the pre-tax and the post - tax equilibrium [2 marks]
- (ii) Compute the tax burden. What proportion is borne by the consumer and the producer respectively? [3 marks]
- (iii) Calculate the excess burden of the tax [2marks]
- (iv) Calculate the efficiency loss ratio and interpret your answer [3marks]

A. Mention and explain 5 features of a good tax system [10marks]

Total = 40marks

QUESTION TWO

- A. What is a public good? [4marks]
- B. Explain three (3) characteristics of a public good [6 marks]
- C. Suppose the government of Ghana is considering the provision of two public goods X and Y. X requires an investment of \$26,000 while Y requires an investment of \$ 38,000. The cost of capital is 12%. On the basis of the following cash inflows and present value of 12%, you are required to state which project should be accepted. [20marks]

Year	Project X	Project Y

	(cash inflows) \$	(cash inflows) \$
1	9,000	8,000
2	7,000	10,000
3	6,000	12,000
4	5,000	14,000
5	4,000	8,000
6	4,000	2,000
7	3,000	16,000
8	3,000	-
9	3,000	-
10	3,000	-

Total = 30 marks

QUESTION THREE

- A. What is market failure? [4 marks]
- B. Discuss any **four (4)** causes of market failure [12 marks]
- D. Distinguish between negative and positive externalities with the aid of diagrams [10 marks]
- C. Explain any two measures to deal with negative externality and positive externality [4 marks]

Total = 30 marks

QUESTION FOUR

- A. Explain the following terms
- i. Fiscal Policy [5marks]
 - ii. National debt [5 marks]
- B. Distinguish between recurrent and capital expenditure [5 marks]
- C. Use the following to explain why public expenditure has the tendency to increase overtime
- i. Wagner's law [8 marks]
 - ii. Peacock-Wiseman hypothesis [7 marks]

Total = 30 marks

QUESTION FIVE

A. Discuss briefly the ability-to-pay principle of taxation [10 marks]

B. With the aid of a diagram explain the incidence of a tax on consumers and producers if the good has

i. elastic demand [5marks]

ii. inelastic demand [5marks]

iii. perfectly elastic demand [5marks]

iv. perfectly inelastic demand [5marks]

Total = 30 marks