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ECS3704

OCTOBER/NOVEMBER 2014
OKTOBER/NOVEMBER 2014

PUBLIC ECONOMICS
OWERHEIDSEKONOMIE

STUDENT NUMBER / STUDENTENOMMER									

IDENTITY NUMBER / IDENTITEITSNOMMER											

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VIR GEBRUIK DEUR EKSAMENOPSIENER

Question No Vraagnr	Marks / Punte		
	Examiners / Eksaminatore		
	1	2	3
Section A			
1			
2			
3			
Section B:			
Total / Totaal			

Subject / Vak

Number of paper / Vraestelnommer

Date of examination / Datum van eksamen

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ECS3704October/November 2014
Oktober/November 2014**PUBLIC ECONOMICS
OWERHEIDSEKONOMIE**Duration 2 Hours
Tydsduur 2 Uur100 Marks
100 Punte**EXAMINERS / EKSAMINATORE**

FIRST / EERSTE	PROF TJ STEENEKAMP
SECOND / TWEDE	MS/ME AK FITSCHEN
EXTERNAL / EKSTERNE	DR NFK MONKAM

Closed book examination
Toeboekeksamen

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This paper consists of 30 pages including 2 pages for rough work (pp 29 to 30) plus the special front page

Hierdie vraestel bestaan uit 30 bladsye insluitende 2 bladsye vir rofwerk (pp 29 tot 30) plus die spesiale voorblad

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This paper consists of 2 sections. Section A consists of three questions. **ALL the questions in Section A must be answered.** Section A counts 40 marks. Section B consists of five questions. You must answer **any THREE** of the five questions in Section B. Section B counts 60 marks.

Hierdie vraestel bestaan uit 2 afdelings. Afdeling A bestaan uit drie vrae. **AL die vrae in Afdeling A moet beantwoord word.** Afdeling A tel 40 punte. Afdeling B bestaan uit vyf vrae. U moet **enige DRIE** van die vyf vrae in Afdeling B beantwoord. Afdeling B tel 60 punte.

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SECTION A / AFDELING A

You must answer **ALL** the questions in this section

U moet al die vrae in hierdie afdeling beantwoord

QUESTION 1 / VRAAG 1

(a) State the conditions for a top-level equilibrium using a mathematical equation (2)

(a) Stel die voorwaardes vir 'n top-vlak gelyktydige-ewewig deur van 'n wiskundige vergelyking gebruik te maak (2)

(b) Describe a positive consumption externality (2)

(b) Beskryf 'n positiewe verbruiks-eksternaliteit (2)

(c) Consider the figure below (2)

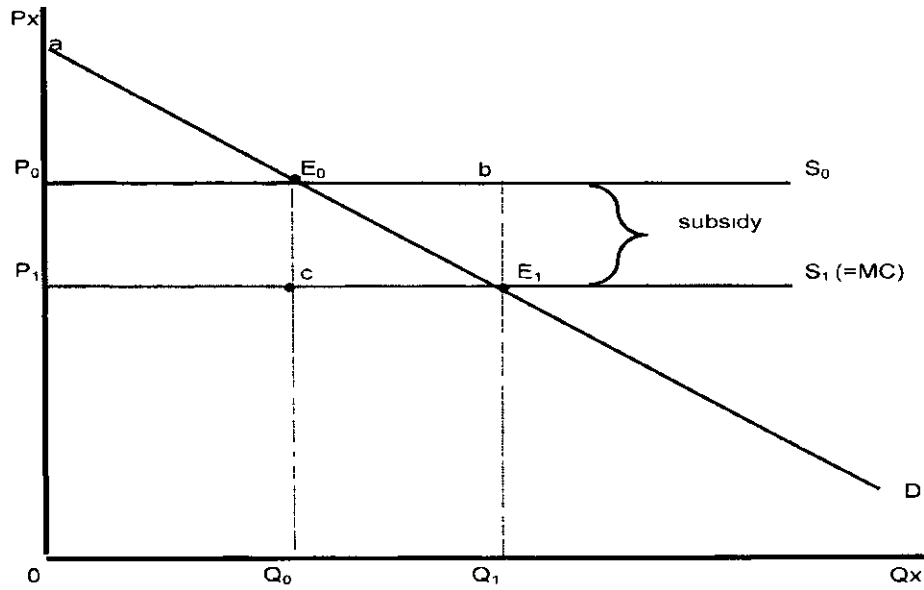
Beskou die diagram hieronder

(i) Which area measures the cost of the subsidy?

(i) Watter area meet die koste van die subsidie?

(ii) Which area measures the excess burden?

(ii) Watter area meet die oormatige belastinglas?



- (d) Provide two justifications for redistribution of income on Pareto inefficiency grounds (2)
- (d) Verskaf twee regverdigings vir herverdeling van inkome op grond van Pareto doeltreffendheidsredes (2)

- (e) An import tax of R60 is payable on a coffee machine priced at R600. The import tax increases to R80 when the value of the coffee machine is R1 000. Which one of the following statements is correct? **Circle** the correct option.
- [1] This is an example of a unit tax
 - [2] The tax does not distort relative prices
 - [3] The tax rate structure is proportional
 - [4] Mr W earns R100 000 per month and Mr P only R5 000 per month. If Mr W and Mr P each purchase a coffee machine at a price of R1 000, in terms of the income base, the rate structure is regressive
- (2)
- (e) 'n Invoerbelasting van R60 is betaalbaar op koffiemasjiene met 'n prys van R600. Die invoerbelasting neem na R80 toe wanneer die waarde van die koffiemasjiene R1 000 is. Watter een van die volgende stellings is korrek? **Omkring** die korrekte opsie.
- [1] Dit is 'n voorbeeld van 'n eenheidsbelasting
 - [2] Die belasting verwing nie relatiewe pryse nie
 - [3] Die belastingkoersstruktuur is proporsioneel
 - [4] Mnr W verdien 'n inkomste van R100 000 per maand en Mnr P slegs R5 000 per maand. Elk koop 'n koffiemasjiene teen R1 000 elk. Volgens die inkomebasis, is die belastingstruktuur regressief
- (2)
- [10]**

QUESTION 2 / VRAAG 2

- (a) Discuss with the aid of a diagram, why government should intervene when a factory producing steel causes a negative externality (e.g. pollution). Use the same diagram to explain how government can address this externality problem. (15)
- (a) Bespreek met behulp van 'n diagram waarom die owerheid moet inmeng wanneer 'n fabriek wat staal produseer, 'n negatiewe eksternaliteit veroorsaak (b.v. besoedeling). Gebruik dieselfde diagram om te verduidelik hoe die owerheid dié eksternaliteitsprobleem kan aanspreek. (15)

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[15]

QUESTION 3 / VRAAG 3

- (a) Explain, with the aid of a diagram, the incidence of a unit tax levied on the suppliers of cigarettes when (i) demand is relatively price elastic and (ii) when demand is relatively price inelastic. Assume a 'normal' supply curve that increases from left to right. What are your conclusions with regard to the impact of demand elasticities on tax shifting, tax revenue and tax incidence? (15)
- (a) Verduidelik met behulp van 'n diagram, die vestiging van 'n eenheidsbelasting wat op die verskaffers van sigarette geëf word wanneer (i) die vraag relatief pryselasties is en (ii) wanneer die vraag reëlf prysonelasies is. Veronderstel 'n 'normale' aanbodkromme wat van links na regs styg. Wat is u gevolgtrekking met betrekking tot die impak van elastisiteite op belastingafwenteling, -inkomste en -vestiging? (15)

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SECTION B / AFDELING B

Answer any **THREE** of the following five questions

Beantwoord enige **DRIE** van die volgende vyf vrae

QUESTION 4 / VRAAG 4

- (a) Explain, with the aid of a diagram, the economic impact of a personal income tax on labour supply. Refer to the income and substitution effects of the tax. (10)
- (b) Contrast and briefly discuss the policy options government could use to address inefficiencies caused by an "artificial" (or statutory) monopoly and a natural monopoly. (10)

[20]

- (a) Verduidelik met behulp van 'n diagram die ekonomiese impak van 'n persoonlike inkomstebelasting op arbeidsaanbod. Verwys na die inkomste- en substitusie-effekte. (10)
- (b) Kontrasteer en bespreek kortliks die beleidsopsies wat die owerheid kan gebruik om ondoeltreffendheid wat veroorsaak word deur 'n "kunsmatige" (of statutêre) monopolie en 'n natuurlike monopolie aan te spreek. (10)

[20]**QUESTION 5 / VRAAG 5**

- (a) Derive the equilibrium position for public goods with the aid of supply and demand curves. Give one reason why the private sector will not provide public goods at this equilibrium. (10)
- (b) Discuss two key tax equity principles. What are the advantages and shortcomings of each? (10)

[20]

- (a) Lei die ewewigsposisie vir 'n owerheidsgoed af met behulp van vraag en aanbod krommes. Gee een rede waarom die privaatsektor nie owerheidsgoedere by hierdie ewewig sal voorsien nie. (10)
- (b) Bespreek twee sleutel belastingbillikheidsbeginsels. Wat is die voordele en tekortkominge van elk? (10)

[20]**[TURN OVER]
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QUESTION 6 / VRAAG 6

- (a) Why are general taxes (e.g. a tax on all motor cars) more efficient than selective taxes (e.g. an excise tax on only BMWs)? Explain your answer using indifference curves (10)
- (b) Assume two products are produced in the economy: bread and motorcars. Bread is produced using labour-intensive techniques, whereas motorcars are produced using capital-intensive techniques. Use the general equilibrium approach (no diagrams required) to explain the incidence of a selective tax on motorcars (10)

[20]

- (a) Waarom is algemene belasting (bv. 'n belasting op alle motorvoertuie) meer doeltreffend as 'n selektiewe belasting (bv. 'n aksynsbelasting op slegs BMWs)? Verduidelik u antwoord met behulp van onsydigheidskrommes (10)
- (b) Neem aan dat twee produkte in die ekonomie geproduseer word: brood en motors. Brood word met arbeidsintensiewe tegnieke en motors met kapitaalintensiewe tegnieke geproduseer. Gebruik die algemene ewewigsbenadering (geen diagramme nodig) om die vestiging van 'n selektiewe belasting op motors te verduidelik (10)

[20]**QUESTION 7 / VRAAG 7**

- (a) Explain with the aid of a diagram why rent-seeking – a form of government failure – could cause economic inefficiency (14)
- (b) Distinguish briefly between pure public goods, mixed goods and merit goods. Name one example of each (6)
- (a) Verduidelik met behulp van 'n diagram waarom gewinsoeking (*rent seeking*) – 'n vorm van owerheidsmislukking – tot ekonomiese ondoeltreffendheid kan lei (14)
- (b) Onderskei kortliks tussen suiwer owerheidsgoedere, gemengde en merietegoedere. Noem 'n voorbeeld van elkeen (6)

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QUESTION 8 / VRAAG 8

- (a) Use a diagram to explain the potential benefits of a government housing subsidy for poor buyers if housing supply is (i) inelastic and (ii) elastic (10)
- (b) Discuss the assignment of spending responsibilities to national and sub-national governments (Use the three broad economic functions of government as a point of departure) (10)

[20]

- (a) Gebruik 'n diagram om die potensiele voordele van 'n owerheidssubsidie vir behuising aan arm kopers te verduidelik indien die behuisingaanbod (i) onelasties en (ii) elasties is (10)
- (b) Bespreek die toedeling van bestedingsverantwoordelikhede aan subnasionale regerings (Gebruik die drie bree ekonomiese funksies van die owerheid as 'n vertrekpunt) (10)

[20]

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