

FORM TP 2007184



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MAY/JUNE 2007

**CARIBBEAN EXAMINATIONS COUNCIL
ADVANCED PROFICIENCY EXAMINATION**

ECONOMICS

UNIT 1 – PAPER 02

2 $\frac{1}{2}$ hours

24 MAY 2007 (a.m.)

INSTRUCTIONS TO CANDIDATES

1. This paper consists of **THREE** sections.
2. There are **TWO** questions in each section. Candidates **MUST** answer **THREE** questions, **ONE** from **EACH** section.
3. Answers for **ALL** questions must be written in the answer booklet provided.
4. Candidates may use silent non-programmable calculators.

SECTION I

Answer ONE question from this section.

1. Table 1 shows the utility that Abina gets from the consumption of video games and novels.

Table 1

Quantity	Utility from Video Games	Utility from Novels	Marginal Utility		Marginal Utility per Dollar	
			Video Games	Novels	Video Games	Novels
0	0	0				
1	30	30				
2	40	38				
3	48	44				
4	54	46				
5	58	47				

Abina has \$100 per month to spend on video games and novels. Video games cost \$20 each and novels cost \$20 each.

- (a) (i) Define “marginal utility”. [2 marks]
- (ii) Calculate Abina’s marginal utility from
- a) video games [5 marks]
- b) novels. [5 marks]
- (b) Draw a diagram showing Abina’s budget constraint. [5 marks]
- (c) (i) Calculate the marginal utility per dollar of Abina’s consumption choices. [5 marks]
- (ii) State the optimal number of video games and the optimal number of novels that Abina will consume in a month. [2 marks]
- (d) State how EACH of the following will affect the quantity of video games and novels consumed by Abina:
- (i) An increase in the money she has to spend by \$20, ceteris paribus [2 marks]
- (ii) An increase in the price of ONE of the goods, ceteris paribus [2 marks]

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(e)

Table 2 Rental Housing Market

Price Per Unit \$	Quantity Demanded (’000 Units Per Month)	Quantity Supplied (’000 Units Per Month)
140	20	39
130	25	34
120	30	30
110	35	25
100	40	22

Table 2 shows the market for rental housing.

- (i) Using the information from Table 2 above, draw a diagram that shows
- a) the demand curve and the supply curve for housing [5 marks]
 - b) the equilibrium price of housing and the equilibrium quantity of housing. [2 marks]
- (ii) In order to assist low-income earners the Government fixes a price ceiling of \$110 on the rent.
- a) Show the price ceiling on your diagram at (i) above. [3 marks]
 - b) State the likely effects of this policy on
 - i) the availability of housing [6 marks]
 - ii) consumer and producer surplus. [6 marks]

Total 50 marks

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2. A garment manufacturer's short-run production function is shown in the table below.

Labour (L) per day (L)	Output (Q) Garments per day (Q)	Average Physical Product (APP)	Marginal Physical Product (MPP)
0	0	0	0
1	5		
2	12		
3	22		
4	30		
5	36		
6	40		

- (a) (i) Write the formulae for average physical product and marginal physical product. [2 marks]
- (ii) Copy the table in your answer booklet and complete it. [6 marks]
- (b) (i) Draw a diagram showing the average and marginal product curves. [8 marks]
- (ii) Discuss the relationship between the average physical product curve and the marginal physical product curve. [6 marks]
- (iii) Explain why the marginal product of the firm first increases and then decreases as more units of labour are added. [9 marks]
- (c) Construct a table to show the Total Fixed Cost, Total Variable Cost, Total Cost, Average Variable Cost, Average Total Cost and Marginal Cost for garments produced if the manufacturer's Total Fixed Cost is \$30.00 and his variable costs consist of wages of \$20 per worker per day. [12 marks]
- (d) (i) Write the formula for calculating the elasticity of demand the manufacturer faces when he sells 30 garments when the price is \$4 per garment, and when he sells 25 when the price is \$5 per garment. [2 marks]
- (ii) Calculate the elasticity of demand and state how his total revenue would be affected by an increase in price. [5 marks]

Total 50 marks

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SECTION II

Answer ONE question from this section.

3. (a) (i) Define the term “market structure” and list TWO types of market structures that exist in your country. [4 marks]
- (ii) State FOUR major assumptions on which perfect competition is based and give ONE example of a perfectly competitive industry operating in your country. [6 marks]
- (iii) Compare TWO other market structures, **not including the two listed at (a) (i) above.** [10 marks]
- (b) The government of your country imposes a tax on each pack of cigarettes sold.
- (i) Draw a diagram showing the effect of the tax. [8 marks]
- (ii) Discuss the effect that the tax would have on the following:
- a) The quantity of cigarettes bought and sold
- b) The price paid by the buyer
- c) The net price received by the seller (after handing over the tax revenue to the government) [9 marks]
- (c) (i) Define the term “deadweight loss” and, in the diagram at (b) (i) above, shade the area representing the deadweight loss caused by the per unit tax on cigarettes. [5 marks]
- (ii) Define consumer surplus and producer surplus, and show which part of the diagram represents consumer surplus lost and producer surplus lost. [8 marks]

Total 50 marks

4. (a) Discuss the term “market failure” in the context of the Pareto efficiency criteria. [8 marks]
- (b) State FOUR causes of market failure and explain how EACH is responsible for inefficient market outcome in your country. [20 marks]
- (c) Discuss FOUR measures that the government of your country has implemented to correct market failure and evaluate the effectiveness of TWO of these measures. [22 marks]

Total 50 marks

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SECTION III

Answer ONE question from this section.

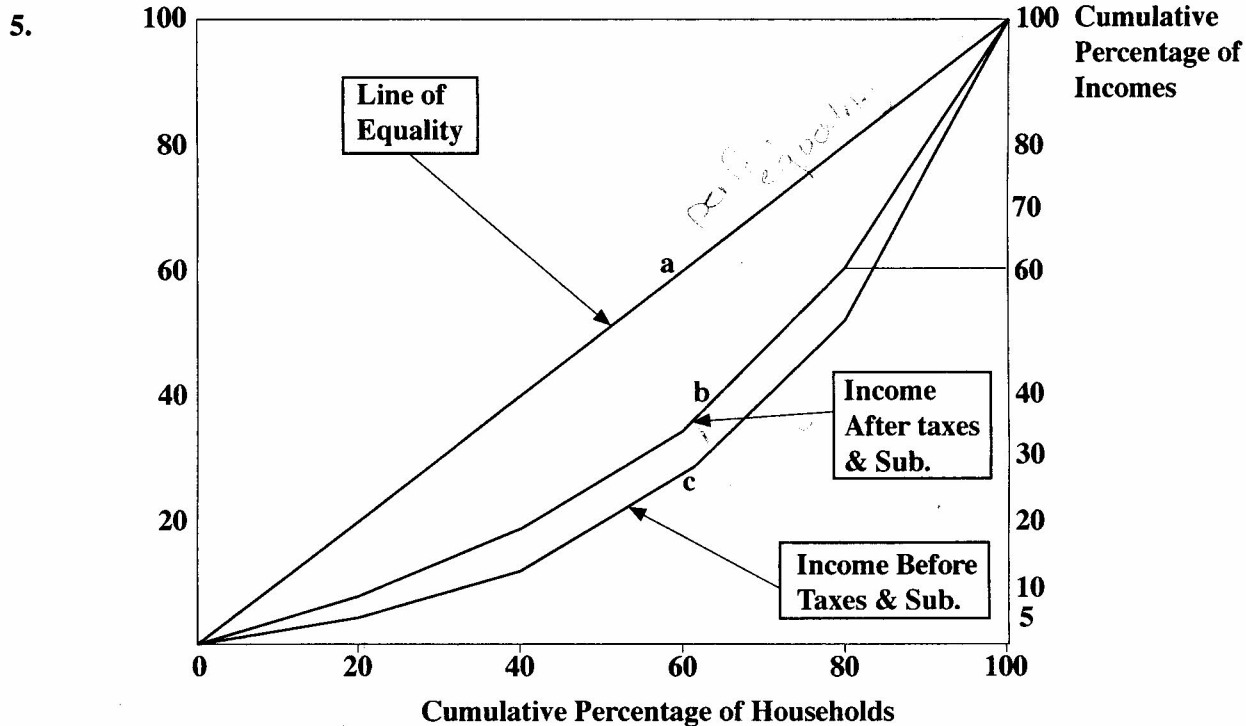


Figure 1 - Lorenz Curve: Household Income Before and After Taxes and Subsidies

(a) Consider Figure 1 and say what EACH of the following represents:

- (i) The diagonal
- (ii) The vertical axis
- (iii) The horizontal axis
- (iv) Curve (b)
- (v) Curve (c)

[8 marks]

(b) (i) Discuss the role of the diagonal in the depiction of income inequality.

[6 marks]

(ii) What do the Lorenz curves (b) and (c) show about the distribution of household income among the top 20% of households and the lowest 20% of households?

[10 marks]

(iii) Comment on the area between Curve (b) and Curve (c).

[4 marks]

(iv) Which of distributions (b) or (c) would result in a greater Gini coefficient? Explain the reasons for your choice.

[4 marks]

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- (c) Explain the difference between absolute and relative poverty. [6 marks]
- (d) Explain the term "social welfare" and say how government subsidies to education will affect social welfare. [12 marks]

Total 50 marks

- 6.
- (a) Define the term "value of the marginal product of labour". [3 marks]
 - (b) Explain the difference between labour force and potential labour force. [12 marks]
 - (c) Distinguish between size and functional income distribution and classify the distributions. [8 marks]
 - (d) John operates a small business which accumulated revenues totalling \$980,000 in 2005. He paid \$49,000 to his landlord, \$147,000 to the bank and he had \$196,000 remaining after paying his staff. Using the FOUR major economic factors of production, answer the following questions.
 - (i) State how much was earned by EACH factor of production. [9 marks]
 - (ii) Name the reward accruing to EACH factor. [4 marks]
 - (iii) Indicate the percentage of the revenue received by EACH factor of production. [4 marks]
 - (e)
 - (i) Distinguish between transfer earnings and rent. [6 marks]
 - (ii) How much economic rent will John earn if the lowest return with which he will be satisfied is 18% of the revenues for his personal inputs? [4 marks]

Total 50 marks

END OF TEST