



AFRICAN ECONOMIC RESEARCH CONSORTIUM
Collaborative Masters Programme in Economics for Anglophone Africa
(Except Nigeria)

JOINT FACILITY FOR ELECTIVES (JFE) 2012

JUNE – SEPTEMBER

INTERNATIONAL ECONOMICS I

First Semester: Final Examination

Duration: 3 Hours

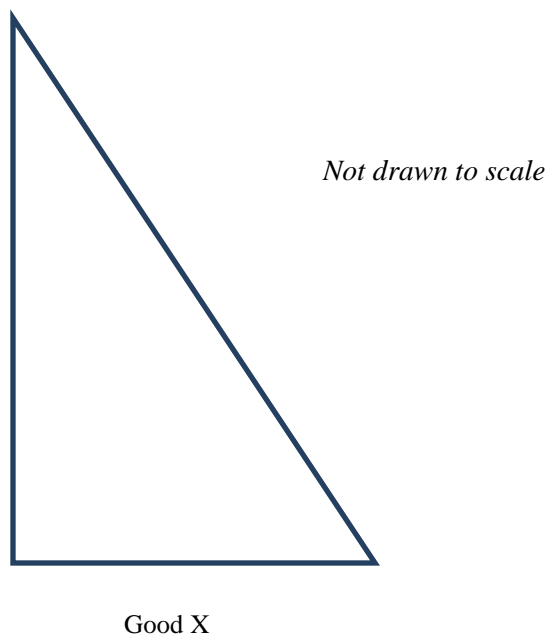
Date: Thursday, August 2, 2012

INSTRUCTIONS:

1. Answer **ANY FOUR** (4) questions.
 2. All questions carry equal marks.
 3. Show all your workings and use well labeled diagrams where appropriate.
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Question 1

A country (A) has the following constant-opportunity costs- production possibility frontier.
Country A's utility function is given by $U(X,Y) = X^{1/3}Y^{2/3}$, the marginal product of labor in Y (β) is =1, the marginal product of labor in X (α) is = 0.5.

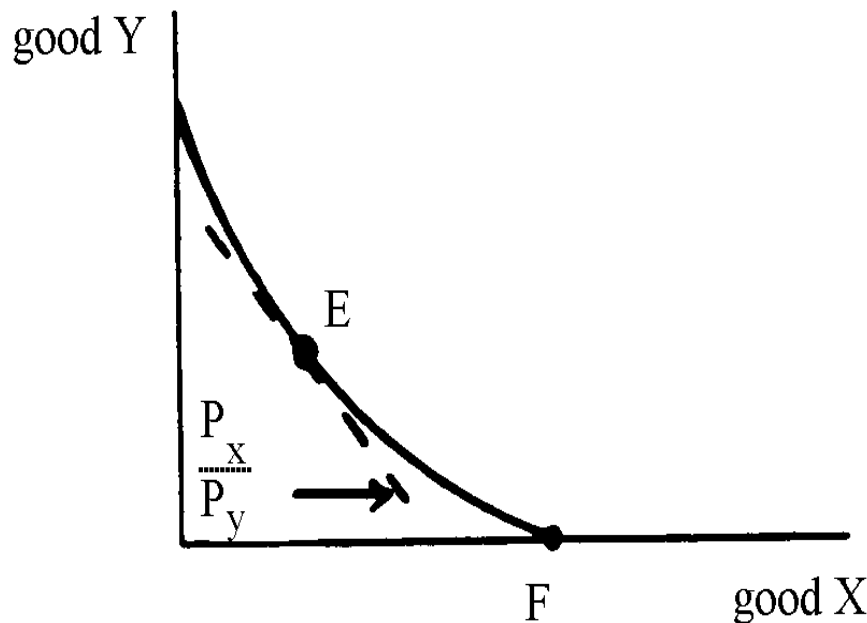




- (a) Compute how much X and Y will be produced and consumed in country A in autarky. **(5 Marks)**
- (b) Suppose A enters into trade with a country Z at the exchange rate of 1Y for 1X. How much X and Y will be produced? How much X and Y will be consumed in country A? **(6 Marks)**
- (c) Explain the effect of trade on real wage in terms of good Y and in terms of good X. **(4 Marks)**

Question 2

Consider two countries H and F with identical and convex PPF (see figure below) due to external scale economies in industries X and Y. Suppose also both countries have identical demands such that both have achieved the autarky equilibrium at point E with autarky price given by P_x / P_y .



- (a) Discuss the possibility of gains from opening up for trade. Can there be a case where one country can be worse off from trade? **(9 Marks)**
- (b) Suppose commodities X and Y have different factor intensities (K/L), would trade lead to factor price equalization? **(6 Marks)**



Question 3

Consider a small country Z, with a production possibility frontier and utility function given by $128 = Y^2 + 4X^2$ and $U = Y^{0.5} X^{0.5}$ respectively, where Y is Yams and X is Xerox machines.

- (a) Compute the equilibrium autarky production of Yams and Xerox machines. **(5 Marks)**
- (b) Compute the equilibrium production of Y and X if the international price ($P_x^* / P_y^* = P^*$) level is =1. **(5 Marks)**
- (c) Using a well labeled general equilibrium diagram show the effect of a production subsidy on X. **(5 Marks)**

Question 4

- (a) Suppose that a country has a nominal tariff rate of 10 percent on good A and imports \$1,000 of good A, has a nominal rate of 5 percent on good B and imports \$1,400 of good B, and has a nominal tariff rate of 15 percent on good C and imports \$600 of good C. These are the only three goods in existence. Compute the country's unweighted-average nominal tariff rate and its weighted-average nominal tariff rate. **(3 Marks)**
- (b) Suppose that, for a country, the free trade price of good X is \$1,000 and the free trade prices of the *only* two inputs (both of which are imported) to the production process of good X are \$400 for good W and \$350 for good Y. Assume that one unit of good W and good Y is necessary for the production of one unit of good X. Suppose now that the country, which is a "small" country, introduces a tariff structure that imposes a 20 percent nominal tariff on good X, an 8 percent tariff on good W, and a 6% tariff on good Y.
 - (i) Compute the Effective Rate of Protection (ERP), or "effective tariff rate," that this tariff structure provides to the domestic producers of good X. **(3.5 Marks)**
 - (ii) Discuss the limitations of ERP concept. **(3.5 Marks)**
- (c) Consider the Linder theory explaining the composition and pattern of trade. What would this theory suggest about the prospects of developing countries in exporting goods to developed countries? Do you think this is realistic suggestion? Why or why not? **(5 Marks)**

Question 5

- (a) Discuss dynamic effects of economic integration that are likely to occur in addition to the static effects such as trade creation and trade diversion. **(7 Marks)**
- (b) Consider a country exporting good Y and importing good X. Using a general equilibrium diagram discuss the effects of (i) introducing an export tax and (ii) introducing an import tax, on producers and consumers. Explain why these two taxes are similar. **(8 Marks)**