



AFRICAN ECONOMIC RESEARCH CONSORTIUM

**Collaborative MA Programme in Economics for Anglophone Africa
(Except Nigeria)**

JOINT FACILITY FOR ELECTIVES (JFE) 2011

JUNE – SEPTEMBER

INTERNATIONAL ECONOMICS I

First Semester: Final Examination

Duration: 3 Hours

Date: Friday, August 5, 2011

INSTRUCTIONS:

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

A free-trade equilibrium exists between country Home (H), and country Foreign (F) representing the rest of the world. The two goods produced and traded are cereals (X) and yeast (Y). The goods are produced with two factors: capital (K) and labor (L). Country H is capital-abundant, and X is labor -intensive. The trade pattern is the one predicted by Heckscher-Ohlin (H-O) theory.

- (i) What is factor price equalization? Explain the process of factor-price equalization in the context of the information given above. **(13 Marks)**
- (ii) One of the assumptions of H-O theory is that of “no transportation costs”. Within the H-O framework, complete factor price equalization cannot be achieved in the presence of transportation costs. Agree? Disagree? Explain. **(12 Marks)**



Question 2

Consider a specific factors model. The production functions of good X and Y and factor endowments are given as:

$$X = R^{0.5} L^{0.5}$$

$$Y = S^{0.5} L^{0.5}$$

$$L_x + L_y = \bar{L} = 400$$

$$\bar{R} = 100$$

$$\bar{S} = 100$$

Where L is labor (homogenous and freely mobile across the two sectors), R is capital specific to the production of good X, and S is capital specific to the production of good Y.

- (i) Suppose $P_x = 2$, and $P_y = 4$. Show how labor is shared in production of the two goods (L_x , and L_y), and compute the real factor prices (real wage rate, real rate for R and real rate for S) **(10 Marks)**
- (ii) Suppose the country plans to enter into trade where it would face a higher of X increase such that we have $P_x = 4$, and $P_y = 4$. Show the effect on the real factor prices (for labor, for R and S). **(10 Marks)**
- (iii) The government's plan to introduce free trade will gain the support of all interest groups. Agree? Disagree? Explain. **(5 Marks)**

Question 3

Consider a small country M, with PPF and utility function given by $100 = X^2 + Y^2$, $U = X^{0.5} Y^{0.5}$, where X is computers and Y is autos.

- (i) Compute the equilibrium consumption of X and Y under autarky. What is the domestic price ratio (P^a) in autarky? **(9 Marks)**
- (ii) If there is now trade so that country M faces an international price ratio ($P^* = \frac{P_X^*}{P_Y^*} = 0.5$), compute the equilibrium production of X and Y under free trade (Hint: Note we are given a specific PPF, and MRT is given by dA/dC). **(9 Marks)**
- (iii) Suppose M's government is interested in increasing production in the import competing sector relative to the level attained in free trade. Which of the following would you advise the government to use: Tariff or production subsidy? Use a well labeled diagram (in general equilibrium) to compare the effects of a tariff and a production subsidy. **(7 Marks)**



Question 4

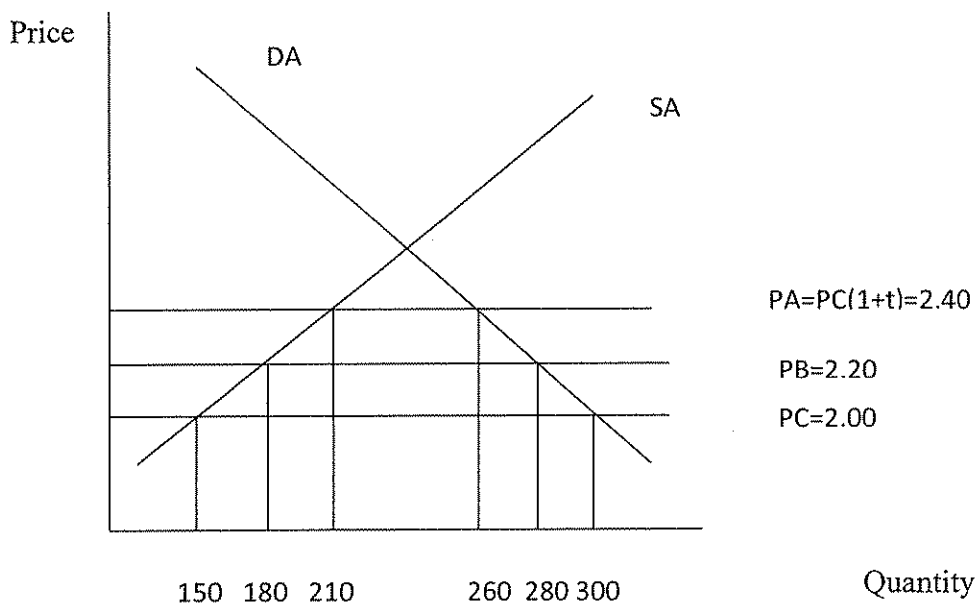
The effect of tariff and a quota are not always interchangeable means of protecting import competing producers. Discuss the effects of the two protection instruments in a growing economy (Assuming small country, discuss growth first in the scarce factor and then the abundant factor). **(25 Marks)**

Question 5

- (i) It is often said that developing countries have little to gain from economic integration projects because they trade very little with each other. What is the reason behind this view? Do you agree with the conclusion? Explain **(18 Marks)**
- (ii) Suppose that there are three countries in the world: A, B and C. Suppose that countries A and B form a customs union (country C is excluded). As a result, country A eliminates all protection against imports from B but maintains tariffs on imports from the non-member country, C. Compute the welfare effect of this union on country A.

See Figure 5a below. The production cost in C is \$2.0, and cost in B is \$2.20. The domestic price in A is \$2.40. Country A levies an import tariff of 20%. **(7 Marks)**

Figure 5a



Note: SA= A's domestic supply, DA is A's demand, and $t=20\%$

Question 6

Discuss the potential benefits and costs of foreign direct investment to a host country.

(25 Marks)