

**NAME:**

**ECON 305  
INTERNATIONAL ECONOMICS I  
Dr. Yetkiner**

**4 December 2006**

**Mid-Term**

**Answer the following questions precisely in the way the question specifies.**

**Part A. Classical Trade Theory (65 Points)**

**1. (10 points)** The following table shows the hours of labor required to produce one unit of each commodity in each country:

|                 | <b>Cloth (hours/yard)</b> | <b>Wine (hours/Gallon)</b> |
|-----------------|---------------------------|----------------------------|
| <b>Portugal</b> | <b>1</b>                  | <b>3</b>                   |
| <b>England</b>  | <b>3</b>                  | <b>2</b>                   |

a. **(4 points)** Is there a basis for trade? If so, which country is expected to specialize in **cloth** production? In **wine** production?

b. **(3 points)** What is the opportunity cost of **cloth** in terms of **wine** in England? In Portugal?

c. **(3 points)** Suppose that terms of trade is  $1W=4C$ . Is any country reluctant to open its economy into trade? Explain.

2. (10 points) The following table shows labor productivity (output produced per hour of labor) in each country:

|          | Cloth (yard/ hour) | Wine (Gallon/hour) |
|----------|--------------------|--------------------|
| Portugal | 0.5                | 0.33               |
| England  | 1                  | 1                  |

a. (5 points) Is there a basis for trade? If so, which country is expected to specialize in **cloth** production? In **wine** production?

b. (5 points) What is the opportunity cost of **wine** in terms of **cloth** in England? In Portugal?

3. (10 points) Consider the following information:

|         | Shoes (hours/pair) | Wine (hours/gallon) |
|---------|--------------------|---------------------|
| Italy   | 1                  | 1                   |
| England | 3                  | 1                   |

Suppose that the exchange rate is €0.5/£, the wage rate in Italy is €4 per hour, and the wage rate in England is £3 per hour.

a. (4 points) What is the terms-of trade? Show.

b. (3 points) What are the limits to the wage rate in **Italy**, other things being equal. Show.

c. (3 points) What are the exchange rate limits? Show.

4. (10 points) In the following two-good multi-country example, do all the countries stand to gain from trade if the international TOT is  $1\text{Fish}=0.5\text{Potatoes}$ ? If so, what commodities will each country export and import? Show.

|                | <b>Fish</b> | <b>Potatoes</b> |
|----------------|-------------|-----------------|
| <b>Poland</b>  | 3 hr/lb     | 5 hr/lb         |
| <b>Denmark</b> | 1 hr/lb     | 4 hr/lb         |
| <b>Sweden</b>  | 2 hr/lb     | 2 hr/lb         |

5. (25 points) The following table shows the *labor requirements* in each country:

|                | <b>Computers</b> | <b>Textiles</b> |
|----------------|------------------|-----------------|
| <b>Home</b>    | <b>1</b>         | <b>1</b>        |
| <b>Foreign</b> | <b>3</b>         | <b>2</b>        |

Suppose that labor endowments of Home and Foreign countries are 20 and 80, respectively. Suppose also that preferences are  $U(x_C, x_T) = (0.4)\log(x_C) + (0.6)\log(x_T)$  and

$U(x_C^*, x_T^*) = (0.4)\log(x_C^*) + (0.6)\log(x_T^*)$ , where  $x_C$  is consumption of computers and  $x_T$  is consumption of textiles.

- (i) Find the demand for computer and textile industries for Home and Foreign.
- (ii) Find the equilibrium relative price and relative quantity under autarky for Home and Foreign.
- (iii) Find the equilibrium output and labor demand for computer and textile industries under autarky for Home and Foreign.
- (iv) Find the relative supply of the World.
- (v) Find the relative demand for the World.
- (vi) Find the equilibrium relative world price and relative world output.
- (vii) Show that both countries gain from trade.
- (viii) Show that world gains from trade.

SAMPLE

**Part B. Neo-classical Trade Theory (40 Points)**

**6. (20 points)** “The higher the difference between the relative prices under autarky and the international terms-of-trade, the higher the gains-from-trade, under normal conditions”. **Illustrate and discuss.**

SAMPLE

7. (20 points) Suppose that country A and trading partner country B increase their willingness to trade simultaneously. What will be the impact on the TOT and on the volume of trade, given that country A is operating in the “elastic” range of its offer curve, while country B is operating both in the “elastic” and “inelastic” ranges of its offer curve. **Illustrate and discuss.**

SAMPLE