Economics 105

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Pledge: *No Aid; No Violations*   October 2, 1996

Sign _____   Quiz #1

Note: Please answer in the space provided. Scrap paper is available in the front of the room. The examination will end at 2:00. Show your calculations in order that you may receive partial credit even if you make a numerical error.

1.   IDENTIFICATION: (30 points) Here are three pairs of concept. For each pair, explain the similarities and differences between the two concepts:

1. $\boldsymbol{h}_y = \dfrac{\partial q}{\partial y}\dfrac{y}{q}$ and $\eta_p = -\dfrac{\partial q}{\partial p}\dfrac{p}{q}$

2.   Price floor versus a surplus

3.   Competition versus oligopoly

II.   MARKETS: (30 points) The demand function for wheat is $q_d = 250p^{-2}$. The
         supply function is $q_s = 2p$, where q_d is the number of bushels demanded, q_s is
         supply and p is price.

         a.   Neatly plot the demand and supply curves.

         b.   Determine the equilibrium price and quantity.

         c.   What is the elasticity of demand at the equilibrium price and quantity?

III.   TRADE (40 points):[1] In Britain there are 1000 workers who can produce either wool or wine. The production transformation function for Britain is $Wool^b = 1000 - 2Wine^b$. They are producing 500 bales of wool and 250 barrels of wine.

In Portugal, where there are 500 workers, the production transformation curve is $Wool^p = 750 - 1.5\ wine^p$. They are producing 200 barrels of wine and 450 bales of wool.

1.   Is production being carried out efficiently in Britain? Explain

2.   Is production in this two country world being carried out efficiently? Explain

3.   Derive the production transformation curve for this two country world. Plot it below:

4.   Evaluate one (only 1) of the following arguments on the back of this page:

a.   Workers in Britain complain that trade should be prohibited because they will not be able to complete with more productive Belgian workers.

b.   Workers in Belgian complain that trade should be prohibited because they will not be able to compete with British workers because they receive a lower real wage.

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[1] After David Ricardo, *Principles of Political Economy and Taxation*, 1817