COMM 220 – PRACTICE PROBLEM SET 4

Suppose that the demand (Qd) and supply (Qs) functions for a product are:

$Qd = 6342 - 242P$

$Qs = 948 + 106P$

(a) Find the equilibrium price and quantity of the product.

(b) Find the consumer surplus and producer surplus at the market equilibrium.

(c) Suppose P is regulated at \$12. How would this policy impact the market? Find the changes in consumer surplus and producer surplus, and the deadweight loss.

(d) Suppose P is regulated at \$18. How would this policy impact the market? Find the changes in consumer surplus and producer surplus, and the deadweight loss.

(e) Suppose P is regulated at \$18 and the government guarantees to purchase any excess supply to maintain this price level. How much will the government have to pay? Find the changes in consumer surplus and producer surplus, and the deadweight loss.

(f) If a tax of \$2 per unit is imposed, what would be the buyer's price, the sellers' price, the number of units sold in the market, the percentage of tax paid by buyers, the percentage of tax paid by sellers, the changes in consumer surplus and producer surplus, the government tax revenue, and the deadweight loss?

(g) If a subsidy of \$2 per unit is granted, what would be the buyer's price, the sellers' price, the number of units sold in the market, the percentage of subsidy accrued to buyers, the percentage of subsidy accrued to sellers, the changes in consumer surplus and producer surplus, the government cost, and the deadweight loss?