ECO402 Assignment No 1 Solution Springs 2013

Solution
A. Calculate shortages or surpluses that occur in rice industry when government sets price equals to Rs. 700 per bag of rice.
Answer:
There will be a shortage of rice with 28000 Qtd. Ultimate effect price.
Part a (I):
Domestic industry for rice is in equilibrium where quantity demanded equals quantity supplied, i.e. Qd=QS.
By equating both equations, we get;
2000 – 6P = 1500 + 14P
-20P = -500
P = 500/20
P = Rs. 25
Part a (ii):
Qd = 2000 – 6P
Qd = 2000 – 6(25)
Qd = 2000-150
= 1850 kg
B. Calculate price elasticity of demand and price elasticity of supply when Government decreases price of rice from Rs. 800 to Rs. 700.
Answer: To calculate shortage, set the price ceiling price equal to the demand equation and equal to the supply equation and solve for Qd and Qs respectively. Subtracting Qs from Qd, you get the shortage. To calculate surplus, pick a market price for the consumer surplus calculation. Calculate the total units of the good purchased using this price according to your demand equation.
As price elasticity of demand = Percentage change in quantity demanded of rice/percentage change in price of rice
In this example,
Percentage change in quantity demanded of rice = (1910-1880)/1880*100
= 1.596
Percentage change in price of rice = (15-20)/20*100
= -25
Negative sign shows decrease in price of rice, so in absolute value, percentage change in price of rice = 25
Price elasticity of demand = 1.596/25
= 0.064
As consumers' demand for rice is inelastic, so they will not increase consumption by significant amount when price of rice decreases from 20 to 15 per kg.
Therefore, consumers' demand for rice does not increase significantly due to decrease in price.
C. Analyze whether the above government action in the form of setting price equals to Rs.700 per bag is proved to be successful to stable the domestic rice market or not. Give answer by only considering the values calculated in part B.
Answer:
As price elasticity of supply = Percentage change in quantity supplied of rice/percentage change in price of rice
In this example,
Percentage change in quantity supplied of rice = (1710-1780)/1780*100
= -3.933
Negative sign shows decrease in quantity supplied of rice, so in absolute value, percentage change in quantity supplied of rice = 3.933
Percentage change in price of rice = (15-20)/20*100
= -25
Negative sign shows decrease in price of rice, so in absolute value, percentage change in price of rice = 25
Price elasticity of supply = 3.933/25
= 0.157
As producers' supply of rice is inelastic, so they will not decrease supply by more proportion when price of rice decreases from Rs.20 to Rs.15 per kg.
D. How cereal industry of Thailand will be affected if Government is successful in overcoming hoarding of rice. Graphically analyze.
If rice is not used in befoul then demand of rice in international market will be decreased and supply of

rice will increase in domestic market so supply curve will shift rightward. That's why equilibrium quantity of rice will be increased in domestic market and its price will be decreased as shown in the following diagram.