Intermediate Microeconomics (full and part-time)
Assignment One;
Due date 08/05/2015, before 13:00 NOTE no late assignments will be accepted
Total Marks: 40 marks
Examiner: Pinehas Nangula

Question One [20 marks]
a) Estimated demand function for processed pork is \( Q = 171 - 20p + 20p_b + 3p_c + 2Y \)
   Using the estimated demand function for processed pork in Namibia, show how the quantity demanded at a given price changes as per capita income, Y, increases by N$100 a year.

b) If the supply of corn by the Namibia is \( Q_n = a + bp \) and the supply by the rest of the world is \( Q_r = c + ep \), what is the world supply? What is the world inverse supply? [6 marks]
c) The demand function for rose is \( Q = a - bp \), and the supply function is \( Q = c + ep + ft \), where a, b, c, e, and f are positive constants and t is the average temperature in a month.
   Show how the equilibrium quantity and price vary with temperature? [8 marks]

Question Two [10 marks]
a) What is the effect of a N$1 specific tax on equilibrium price and quantity if demand is perfectly inelastic? [4 marks]
b) The coconut oil demand function is \( Q = 1200 - 9.5p + 16.2p_p + 0.2Y \). Assume that p is initially N$0.45 per kg, \( p_p = N$0.31 \) per kg and Q=1275 thousand metric tons per year.
   Calculate income elasticity of demand coconut oil. [6 marks]

Question Three [10 marks]
Diogo has a utility function \( U[B, Z] = AB^\alpha Z^\beta \), where A, \( \alpha \) and \( \beta \) are constants, B is burritos, and Z is pizzas. If the price of burritos, \( P_b \), is N$2 and the price of pizzas, \( P_z \), is N$1, and Y is N$100, what is Diogo’s optimal bundle? [10 marks]

All the best!!!!!