UNIVERSITY OF ZAMBIA

SCHOOL OF HUMANITIES AND SOCIAL SCIENCES

DEPARTMENT OF ECONOMICS

SEMESTER I : TEST NUMBER II

ECN 1115: INTRODUCTION TO MICROECONOMIC THEORY

3rd AUGUST, 2020

TIME ALLOWED: 4 ½ hours (10 hours to 14:30 Hours)

INSTRUCTIONS

- Answer All questions
- Please, answer them and submit by 14:38 hours
- **E-mail your solutions to: dmudenda@unza.zm and copy: natashakangwachileshe@gmail.com and sharonkaonga61@gmail.com**
- Any delayed submission will be disqualified. Any plagiarism will result in your script to not be considered.

Question: 1

A city of Makala-nguzu is estimated to be 4000 hectares. The city is inhabited by Mr. Huang and 200 other residents. Mr Huang has a title from the local authorities and occupies 3600 hectares of the land and the rest of the land is inhabited by the other resident. They all derive utility from the land and are never saturated. Answer the following questions:

a. A pareto efficient allocation is one in which there is no feasible reallocation of the goods that would make consumers at least as well-off and at least one consumer strictly better off. Is this true, false or uncertain? Explain your answer
b. Is the allocation of Land in Makala-nguzu pareto optimal? Explain your answer with the help of a diagram
c. Is the land allocation equitable? Explain your answer.
d. Economics suggests that among a choice of different points on contract curve, a more equal distribution across consumers is preferable to a less equitable distribution. True, false or uncertain? Explain your answer

Question: 2

Instructions for tackling each of the questions are given within questions. Answer all of them.

a. For each of the following scenarios, use a supply and demand diagram to illustrate the effect of the given shock on the equilibrium price and quantity in he specified competitive market. Illustrate and explain whether there is s shift in the demand curve, supply curve or neither
    i. An unexpected heat weave hits Lusaka province. Show the effect in the ice cream market in Chirundu
    ii. Zimbabwe and Zambia are major producers of tobacco. Workers in Zambia decide to go on strike. Show the effect on the market for Zambian tobacco
    iii. Suppose government imposes a price cap on bottled water. Show the effect on bottled water market.
b. You run the only lemonade stand in the Ruins Hostel. If people don't buy lemonade from you, their only is to buy orange juice from a nearby vendor. One day, you decide to raise the price of lemonade from K5 per glass to K5.10 per glass. As a result, have of your usual customers decide to get orange juice instead of lemonade that day. What does this experience tell you about demand for lemonade in Ruins Hostel.

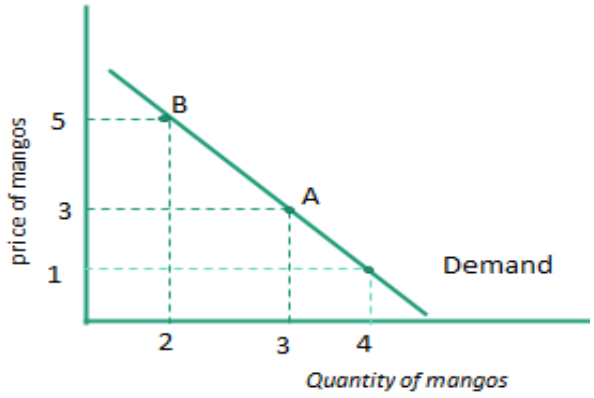
Question: 3

You have just won your first job as a consultant to analyse the market for cotton. From public sources, you are able to find that last year's price for cotton was K20 per ton. At this price 100 million tons were sold on the country. From the trade association data, you are able to obtain estimates for the own price elasticities of demand and supply in the country as -0.25 for demand and 0.5 for supply. You are told that the demand and supply curves are linear:

a. If government imposed a tax on producers of cotton, explain who is likely to bear most of the incidence of the tax and why
b. Assume that the cotton buyers have no discovered wool as a perfect substitute to cotton. Draw the supply and demand curves and explain how the results in a) above will change.

Question : 4:

You are given the following graph which shows the demand curve for Mangos:



a. Calculate the amount of revenue the seller would receive if the price is set at K3
b. Calculate the amount of revenue the seller would receive if the price is set at K5
c. Reasoning from the results you just calculated, is the demand for mangos elastic or inelastic
d. Calculate the arc elasticity of demand between point A and B

Question 5

Production at Mbeba's brick making factory shows the following relationship between the number of workers and number of blocks produced a day:

Quantity of Labour	Quantity (number of bricks)	Marginal return to labour	Fixed costs	Variable Cost	Total Cost
0	0				
1	100				
2	180				
3	240				

a. Complete the table based on the following questions:
b. Calculate the marginal return gained from each additional worker
c. Suppose Mbeba has entered in a long term lease for a factory space which is his fixed cost. The lease cost is K50 and he hires each worker at K80 per day. Complete the rest of the table.
d. Can tell whether the above exhibit increasing returns to scale or not? Explain your answer