

ECO101: Introduction to Microeconomics

Summer_23 | Midterm Examination | Total Marks: 30 | Duration: 1hr 15mins Answer Any 3 of the following questions

Question 1

	Time required to produce one <u>T-shirt</u>	Time required to produce one <u>Trouser</u>
China	20 mins	5 mins 20
Bangladesh	30 mins	15 mins

What is the opportunity cost of China to produce 5 t-shirts? (2.5 Marks)

What is the opportunity cost of Bangladesh to produce 10 trousers? (2.5 Marks)

Which country has an absolute advantage in producing Trousers? (2.5 Marks)

d. Which country has a comparative advantage in producing Trousers? (2.5 Marks)

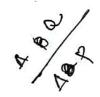
Question 2

As it happens, the local production of cattle (cows and goats) has increased significantly and so has the availability of beef and mutton. This has coincided with a decrease in consumers' income. Let's assume that beef is an inferior good while mutton is a normal good and each market is initially at equilibrium -

- a. Now, draw a demand-supply diagram to illustrate and explain the effects of the given shocks on the equilibrium price and quantity in the beef market. (5 Marks)
- b. Draw a demand-supply diagram and explain how the events changes the equilibrium condition in the market of mutton. (5 Marks)

2/0 10 K

Question 3



Given the demand and supply functions of Product X:

Demand: Px = 150 - 3Qx + 2Qy; where Qy is the quantity demanded for Product Y

Supply: Px = 30 + Qx

Additional Information: The market is at equilibrium and Quantity demanded for Product Y (Qy) is 20 units.

a. If the supplier wants to increase the price by 10TK, do you think that would be a good idea for her business in terms of revenue? (3 marks)

b. If a rise in market price (equilibrium) by 20TK, increases Qy by 20 per cent, then what's the cross price elasticity of demand? Comment on the relationship and elasticity.

(4 marks)

c. If there is a lack of raw material available for the production of Product X, how would the supplier react to an increase of price in the market? (3 marks)

<u> Question 4</u>

Consider the following demand and supply equations: P = 65 - 7Q and P = 15 + 3Q. The market is in equilibrium.

a. Calculate the consumer surplus and the producer surplus. (4 marks)

A new 5 take tax is imposed on sellers that shifts the original supply curve to: P = 20 + 3Q.

b Compute the After-tax Consumer and Producer surplus. (4 marks)

c. Calculate the government's tax revenue and deadweight loss. (2 marks)

