



Strathmore
UNIVERSITY

STRATHMORE BUSINESS SCHOOL
MASTER OF SCIENCE IN DEVELOPMENT FINANCE
END OF SEMESTER EXAMINATION
MDF 8102: MICRO AND MACRO ECONOMICS

Date: Tuesday, 14th December 2021

Time: 3 Hours

Instructions

1. This examination consists of **FOUR** questions.
2. Answer **QUESTION ONE** and **ANY OTHER TWO** questions.

Question 1 (Compulsory) (30 marks)

- a) Discuss the three methods of calculating GDP **(15 marks)**
- b) Explain economic welfare concepts and discuss the welfare implications of a tariff **(15 marks)**

Question 2 (15 marks)

Consider a Cobb-Douglas utility function for two goods X and Y represented as

$$U(X, Y) = X^a Y^b$$

The money income of the consumer and the prices of the two goods are given as M , P_X and P_Y , respectively. Derive the Marshallian demand functions

Question 3 (15 marks)

We can write the demand and supply curves algebraically as follows:

Demand: $Q = a - bP$

Supply: $Q = c + dP$

- a) Find the values of the constants a, b, c, and d in the supply and demand equations based on the supply and demand for the world copper market. The relevant numbers for the copper market are as follows: Equilibrium Quantity $Q^* = 18$ million metric tons per year (mmt/yr) Equilibrium Price $P^* = \$3.00$ per pound, point elasticity of supply $ES = 1.5$ point Elasticity of demand $ED = -0.5$.
(10 Marks)
- b) What would a 55-percent decline in demand do to the price of copper? **(5 Marks)**

Question 4 (15 marks)

- a) Using a well labelled diagram and clear explanations show that the market for pharmaceutical drugs, can either be perfectly competitive or monopoly **(10 marks)**
- b) Why is the Marginal Revenue Curve below the Demand Curve in a Monopoly? **(5marks)**