

UNIVERSITY OF ESWATINI

FIRST SEMESTER RE-SIT EXAMINATION PAPER, JANUARY 2020

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF ECONOMICS

COURSE CODE: ECO201

TITLE OF PAPER: MICROECONOMICS I

TIME ALLOWED: 2 HOURS

Instructions

1. This paper consists of section (A), Section (B) and Section (C).
2. Section A is compulsory.
3. Answer one question from Section (B) and one question from Section (C).

Special Requirements

Scientific calculator

*Candidates may complete the front cover of their answer book when instructed by the Chief Invigilator and sign their examination attendance cards but must **NOT** write anything else until the start of the examination period is announced.*

No electronic devices capable of storing and retrieving text, including electronic dictionaries and any form of foreign material may be used while in the examination room.

DO NOT turn examination paper over until instructed to do so.

SECTION A

QUESTION ONE: COMPULSORY

PART I: MULTIPLE CHOICE QUESTIONS

WRITE THE CORRECT ANSWER IN YOUR ANSWER BOOKLET. (1 MARK EACH = 10 MARKS)

1. When the price of one of the products that you buy increases, your purchasing power decreases. Thus you are likely to buy less of all normal goods. This is known as:
 - a) The substitution effect
 - b) The real income effect
 - c) The law of diminishing marginal returns
 - d) The rip-off effect

2. Banele graduates from university with a degree in Economics and his income increases by E15,000 a year. Ceteris paribus, he decreases the quantity of donuts he buys. For Banele, donuts
 - a) And toast have become substitutes
 - b) And tea has become complements
 - c) Are an inferior good
 - d) Are a normal good

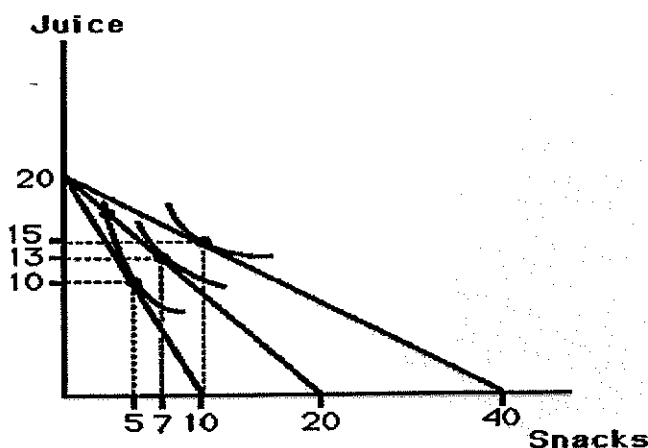
3. Suppose that price of Good X rises by 30% and demand for Good X falls by 10%. Elasticity of demand is
 - a) -3
 - b) -30
 - c) -0.33
 - d) -1.33

4. Sibonelo loves chocolate. As the market price of a bar of chocolate increases from E30 to E60, Sibonelo continues to buy a dozen chocolates every week to satisfy his wants. Sibonelo's demand for chocolate is therefore:
- a) Elastic
 - b) Unit elastic
 - c) Perfectly inelastic.
 - d) Illustrated by a horizontal demand curve.
5. Which of the following products would you expect to have the most inelastic demand following a price change in the short term?
- a) Package holidays to the Seychelles
 - b) Diesel
 - c) An XBox
 - d) A bottle of red wine
6. MTN estimates the price elasticity of demand for text messages to be -2.0. If the business cuts the price of text messages by 20%, demand could be expected to
- a) Expand by 20%
 - b) Expand by 30%
 - c) Expand by 40%
 - d) Expand by 10%
7. When the price of a CD is E12 per unit, 180,000 CDs are demanded each week. The manufacturer estimates that the price elasticity of demand is -1.4. If the price of the CD were cut by E3, how many CDs would be demanded at the new price?
- a) 200,000
 - b) 215,000
 - c) 220,000
 - d) 243,000

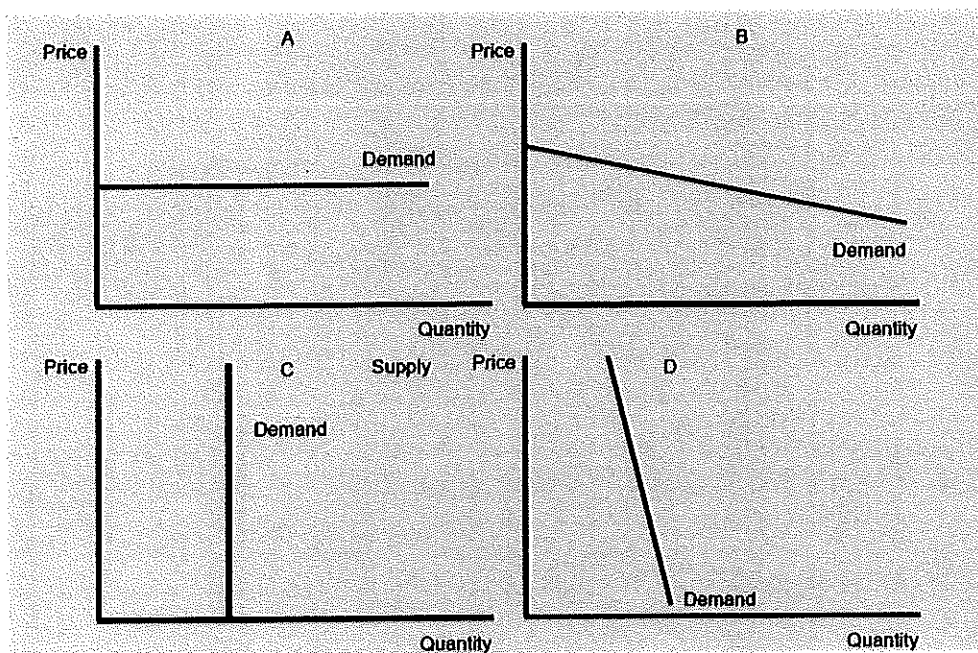
8. When *real* income rather than money income is kept constant in drawing a consumer's demand curve for a commodity, the demand curve is negatively sloped-:
- Always
 - Never
 - Sometimes
 - Often
9. When someone consumes two goods (A and B), that person's utility is maximized when the budget is allocated such that
- the ratio of the marginal utility of A to the price of A equals the ratio of the marginal utility of B to the price of B
 - the marginal utility of A equals the marginal utility of B
 - the marginal utility of A times the price of A equals the marginal utility of B times the price of B
 - the ratio of total utility of A to the price of A equals the ratio of the marginal utility of B to the price of A

Use the following diagram to answer **Questions 10- 12.**

The Figure below shows Lungile's indifference map for juice and snacks. Also shown are three budget lines resulting from different prices for snacks assuming she has E20 to spend on these goods-:



10. Which of the following points are on Lungile's price-consumption curve?
- 10 snacks and 20 juices
 - 10 snacks and 0 juices
 - 10 snacks and 5 juices
 - 10 snacks and 15 juices
11. This information could be used to determine-:
- the slope of Lungile 's demand curve for juice.
 - the amount by which Bobby's demand curve for juice shifts when her income rises.
 - the amount by which Lungile's demand curve for juice shifts when the price of snacks rises.
 - All of the above.
12. As the price of snacks rises, the price for juice
- stays the same.
 - increases.
 - decreases
 - might change, but there is not enough information to determine.
13. Which one of the following diagrams, A, B, C or D shows a demand curve that is perfectly inelastic?



- a) A
- b) B
- c) C
- d) D

14. When total utility increases, marginal utility is

- a) negative and increasing
- b) negative and declining
- c) zero
- d) positive and declining.

15. The table below shows the price and quantity for two goods X and Y. The cross price elasticity of demand for X and Y when the price of X falls from E10 to E9 is

Price of Good X per unit	Quantity of Good X demanded	Quantity of Good Y demanded
E10	20	30
E9	24	42

- a) -4
- b) +2
- c) -2
- d) +4

16. Good X is an inferior good. A rise in consumers' income is likely to lead to:

- a) A rise in demand and an increase in market price and quantity sold
- b) A fall in demand and an increase in market price and quantity sold
- c) A fall in demand and a fall in market price and quantity sold
- d) An expansion of market supply following an increase in demand

17. The statement $C = D = 10$ utils implies

- a) an ordinal measure of utility only
- b) a cardinal measure of utility only
- c) an ordinal and a cardinal measure of utility
- d) none of the above.

18. A consumer who is below the personal budget line (rather than on it)
- a) is not spending all personal income
 - b) is spending all personal income
 - c) may or may not be spending all personal income
 - d) is in equilibrium.
19. If the price elasticity of demand for beans is estimated to be -0.4, then a 20% increase in price will _____ the quantity demanded by _____ %
- a) Increase, 8%
 - b) Decrease, 14%
 - c) Increase, 16%
 - d) Decrease, 8%
20. As the price of a good rises, the consumer will experience
- a) a desire to consume a different bundle.
 - b) a decrease in utility.
 - c) a southwesterly movement on the indifference map.
 - d) All of the above.

Question 1 (ii)

- a) E. Merckx and Co. produces bicycles using only two variable inputs – bicycle frames and wheels. Draw the isoquants for 100 and 200 units of output. Why do they look like this? [5]
- b) What is a production function? [2]
- c) Highlight the parameters of the Cobb-Douglas production function [3]
- d) How does the change in an inputs price affect the various short-run cost curves? Consider the case of both fixed input prices and variable input prices. [5]
- e) Why is a typical short-run average total cost curve more U-shaped than the long-run average total cost curve. [5]

SECTION B

ANSWER ANY ONE (1) QUESTION

[30 Marks Each]

Question Two

(30 Marks)

3. (a) Consider two goods: paper towels and televisions.

(i) Which is a durable good? Would you expect the price elasticity of demand for paper towels to be larger in the short run or in the long run? Why? [5]

(ii) What about the price elasticity of demand for televisions? [5]

(b) Suppose the Ministry of Agriculture is interested in analysing the domestic supply of corn. The researchers estimate the following demand and supply functions:-

$$Q_d = 1600 - 125P$$

$$Q_s = 440 + 165P$$

Where:- Quantities are measured in millions of bushels.

Prices are measure in Emalangenzi/ bushel.

(i) Calculate the equilibrium price and quantity that will prevail under a completely free market. [5]

(ii) Calculate the price elasticity of demand at the equilibrium values. [5]

(iii) Calculate the price elasticity of supply at the equilibrium values. [5]

(c) What constraints or limitations does the consumer face in seeking to maximize the total utility from personal expenditures? [5]

Question Three

(30 Marks)

4. Starting from a position of consumer equilibrium, with the aid of diagram(s)

(a) Show the substitution and income effects of a price rise (ceteris paribus) for a normal good, X. [7]

(b) Derive two demand curves for the good X in (a) above,

(i) one that keeps money income constant and,

(ii) the other that keeps real income constant [3]

In your answer, explain how you derived the demand curves for commodity X. [10]

(c) Explain what the slope of the income consumption curve shows about the income elasticity of demand. [5]

(d) Why can't all goods be inferior? [5]

SECTION C

ANSWER ANY ONE (1) QUESTION

[30 Marks Each]

Question Four

- a) Consider the production function $Q = 150L$, where Q is total output and L is the quantity of labor employed. What does this production function look like? Describe the corresponding AP and MP curves. Why is it unlikely that a true production function has this form?
[10]
- b) Best and Marsh Ltd produce a football game called 'The Entertainers'. The company has just completed a study of its production process and it has just determined that one more unit of labor increase its output of the game by 200. However, an additional unit of capital could increase its output by only 150. What are the marginal products of capital and labor? If the current price of capital is SZL10 and the current price of labor is SZL25, is the firm employing the optimal input bundle for its current output? Why or why not? If not which input usage should be increased?
[10]
- c) How does the change in an inputs price affect the various short-run cost curves? Consider the case of both fixed input prices and variable input prices.
[10]

Question Five

- a) Using an isoquant map and a given input-price ratio, explain how we can derive the long-run and short-run cost curves.
[20]
- b) What does the long-run expansion path look like if one input is regressive? Can both inputs be regressive? Why?
[10]