



**NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY**

FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION

DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE

QUALIFICATION : BACHELOR OF ECONOMICS, BACHELOR OF ACCOUNTING AND BACHELOR OF ACCOUNTING (CHARTERED)	
QUALIFICATION CODE: O7BEC0	LEVEL: 7
COURSE CODE: IMI611S	COURSE NAME: INTERMEDIATE MICROECONOMICS
SESSION: JUNE 2023	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

SECOND OPPORTUNITY QUESTION PAPER	
EXAMINER(S)	Mr Eslon Ngeendepi Mr Pinehas Nangula
MODERATOR:	Ms Ndeshi Shitenga

THIS MEMORANDUM PAPER CONSISTS OF 12 PAGES (Including this front page)

SECTION A

20 Marks

Instruction: Please use the answer sheet at the end of this question paper. Cross the alternative you select with an X.

QUESTION 1

(20 Marks)

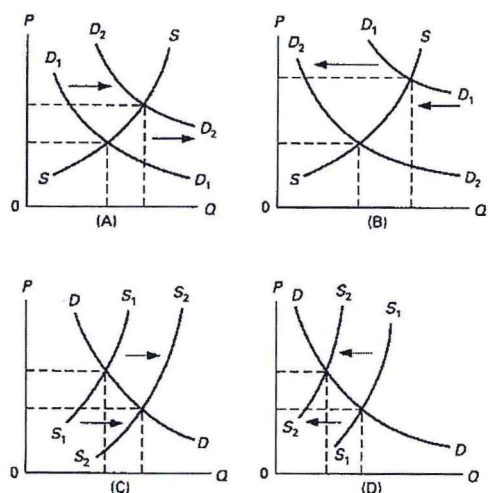
1. If people expect the price of Sasol shares to increase because of an expected future increase in the oil price, the equilibrium price of Sasol shares

- a) Is likely to increase now because of an increase in the demand for Sasol shares
- b) Is likely to increase now because of an increase the supply of Sasol shares
- c) Will only increase once the oil price increase happens
- d) Is indeterminate because we do not really know what will happen to the oil price in future

2. If the income elasticity of demand for furniture is +5, a 5% increase in consumer income, *ceteris paribus*, will

- a) Decrease the quantity of furniture bought by 25%.
- b) Increase the quantity of furniture bought by 25%.
- c) Increase the quantity of furniture bought by 5%.
- d) Increase the quantity of furniture bought by 1%.

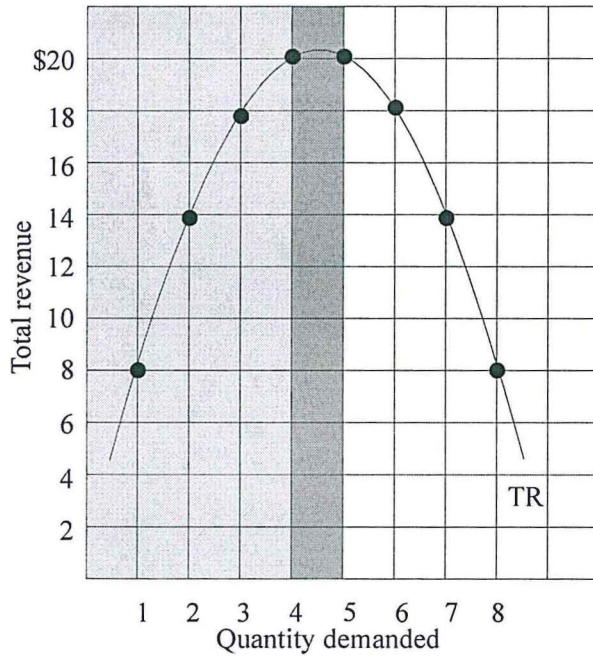
Use the Figure 1 below to answer question 3.



3. Which of the above diagrams illustrates the effect of a government subsidy on the equilibrium price and quantity of AIDS research?

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

Use figure 2 below to answer question 4.



4. The total revenue curve is derived from a linear demand curve. That demand curve must be price:

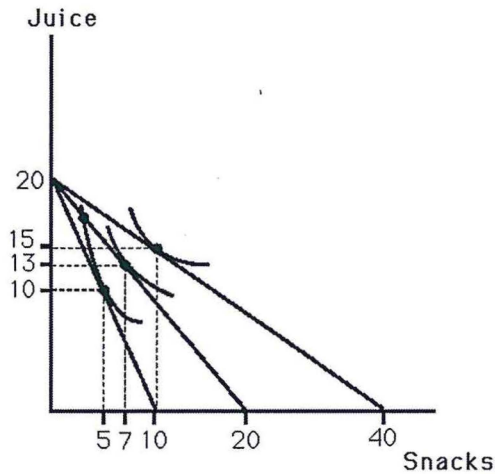
- a) Inelastic for price decrease that increase quantity demanded from 6 units to 7 units.
- b) Elastic for price decreases that increase quantity demanded from 6 units to 7 units.
- c) Inelastic for price increase that reduces quantity demanded from 4 units to 3 units.
- d) Elastic for price increases that reduces quantity demanded from 8 units to 7 units.

5. If a price ceiling is set above the equilibrium price:

- a) A shortage of the product will occur.
- b) A surplus of the product will occur.
- c) An illegal market will evolve.
- d) There will be no effect on the equilibrium price and quantity.

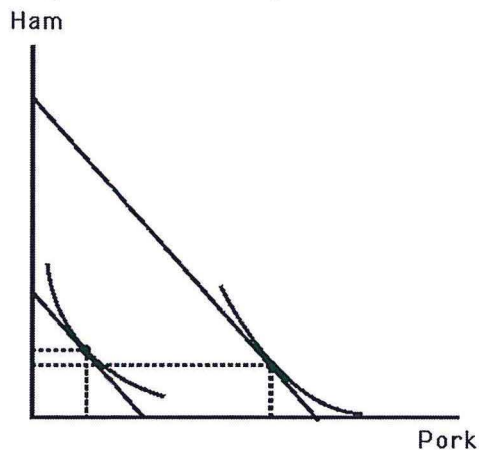
6. The slope of an indifference curve is _____, and a movement along the curve causes the loss in marginal utility of one good to _____ the marginal utility gained from another good.
- Positive; reduce.
 - Positive; equal.
 - Negative; reduce.
 - Negative; equal.

Use figure 3 below to answer question 7 below.



7. Figure 3 shows John's indifference map for Juice and snacks. Also shown are three budget lines resulting from different prices for snacks assuming he has N\$20 to spend on these goods. Which of the following points are on John's price-consumption curve?
- 10 snacks and 20 juices.
 - 10 snacks and 0 juices.
 - 10 snacks and 5 juices.
 - 10 snacks and 15 juices.
8. Figure 3 shows John's indifference map for Juice and snacks. Also shown are three budget lines resulting from different prices for snacks. As the price of snacks rises, John's utility
- Stays the same.
 - Increases.
 - Decreases.
 - Might change, but there is not enough information to determine.
9. Figure 3 shows John's indifference map for juice and snacks. Also shown are three budget lines resulting from different prices for snacks. John's demand for snacks is
- Inelastic.
 - Elastic.
 - Unit elastic.
 - Perfectly elastic.

Use Figure 4 to answer questions 10 – 12.



10. Figure 4 shows Lerato's indifference map and budget lines for ham and pork. Which of the following statements is TRUE?

- a) Pork is an inferior good.
- b) Ham is an inferior good.
- c) Neither pork nor ham is an inferior good.
- d) Both ham and pork are inferior goods.

11. Which of the following statements is TRUE

- a) Lerato's Engel curve for pork will be upward sloping.
- b) Lerato's Engel curve for pork will be downwards sloping.
- c) Lerato's Engel curve for pork will be backwards bending.
- d) Lerato's Engel curve for pork cannot be derived from the information provided.

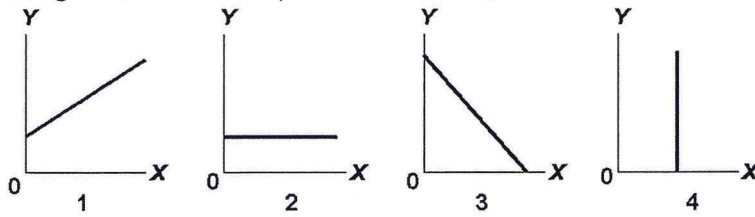
12. Which of the following statements is TRUE

- a) Lerato's demand curve for pork shift rightward when his income increases.
- b) Lerato's income elasticity of demand for pork is greater than zero.
- c) Pork is a normal good.
- d) All of the above.

13. Suppose the quantity of X is measured on the horizontal axis. If the income consumption curve is vertical, then the income elasticity of demand for X is

- a) 0.
- b) 1.
- c) -1.
- d) There is not enough information to determine the income elasticity for X.

Use figure 5 to answer question 14 below.



14. Answer on the basis of the relationships shown in the above four figures. The amount of Y is inversely related to the amount of X in:

- a) 2 only.
- b) Both 1 and 3.
- c) 3 only.
- d) 4 only.

15. Opportunity cost is best defined as:

- a) The monetary price of any productive resource.
- b) The amount of labor that must be used to produce one unit of any product.
- c) The amount of one product that you need to let go to produce one more unit of another product.
- d) The ratio of the price of imported goods to the price of exported goods.

16. The Namibia University of Science and Technology council decides to raise tuition fees for the purpose of increasing its revenue so that a hefty salary increase can be given to economics lecturers. In this case NUST is assuming that the demand for education at NUST is:

- a) Decreasing
- b) Relatively elastic.
- c) Perfectly elastic.
- d) Relatively inelastic

- 17. An anti-drug policy that reduces the supply of crack cocaine might;**
- Reduce the price of a "fix" from a N\$20 to a N\$10.
 - Reduce street mugging because the addicts demand for crack cocaine is highly elastic.
 - Increase street muggings because the addicts demand for crack cocaine is highly inelastic.
 - Increase street mugging because the addicts demand for crack cocaine is highly elastic.
- 18. The law of diminishing marginal utility state's that;**
- Total utility is maximized when consumers get the same amount of utility **per unit** (not per dollar) of each product consumed
 - Beyond some point additional units of a product will yield less and less extra satisfaction to a consumer.
 - Price must be lowered to induce firms to supply more of a product.
 - It will take larger and larger amounts of resources beyond some point to produce successive units of a product.
- 19. Cesar Saladino likes rum. The first shot of rum yields him 18 units of utility; the second yields him 12 more units of utility. If he drank a third shot, his total utility from the 3 drinks would be 38 units of utility. The marginal utility of the third shot would be:**
- 38 units of utility.
 - 30 units of utility.
 - 8 units of utility.
 - Zero, even though he still wouldn't be drunk.
- 20. Suppose that MU_X/P_X exceeds MU_Y/P_Y . To maximize utility the consumer who is spending all her money income should buy:**
- Less of X only if its price rises.
 - More of Y only if its price rises.
 - More of Y and less of X.
 - More of X and less of Y.

SECTION B

40 Marks

Question 1

(8 marks)

Consider the market for new passenger cars in Namibia. In each of the following cases, what will happen to;

- i. Demand and supply,
- ii. Equilibrium quantity and equilibrium price?

Use a graph to illustrate the shifts of the curves.

- a. The price of petrol increases; (2)
- b. The car manufacturing industry is subject to a prolonged strike about wages; (3)
- c. Government imposes restriction on the importation of new passenger cars. (3)

Question 2

(32 marks)

Suppose that the demand for processed beef in Namibia is given as,

$$Q_d = 226 - 9p + 20p_p + 3p_c + 0.002Y$$

And the supply function for beef in South Africa is assumed to be;

$$Q_s = 280 + 21p - 60p_a$$

Where:

- p is price of beef;
- Q is quantity of beef demanded (measured in millions of kg per year);
- p_p is the price of pork = N\$4 per kg;
- p_c is the price of chicken = N\$3 per kg;
- Y is income of consumers = N\$12,500 and
- p_a is price of cattle = N\$1.50 per kg.

- a) Derive the equilibrium price and quantity of beef. (Round off your answer to two decimal places). (10)
- b) Calculate the price elasticity of demand for beef. (2)
- c) Calculate the price elasticity of supply of beef. (2)
- d) Calculate the income elasticity of demand for beef. (3)
- e) Calculate the cross price elasticity of demand between the price of chicken and the quantity of beef. (3)

- f) Suppose that the government collect specific tax of N\$ 1.92.
- i. Graphically show the equilibrium in the absence of tax. (3)
 - ii. Graphically determine the effect of specific tax on the equilibrium price paid by the consumer and on the equilibrium quantity? Also show the amount of tax revenue generated by the government. (9)

SECTION C

40 Marks

Question 1

(20 marks)

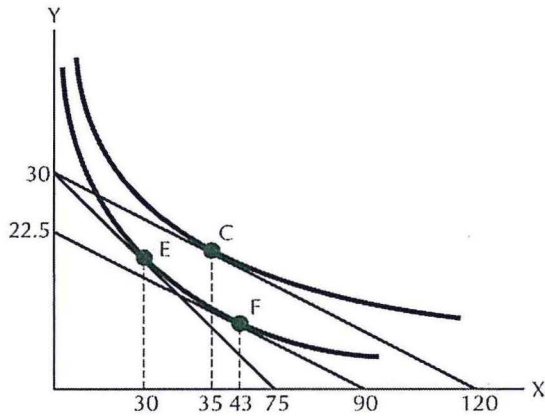
Meke's utility function is $U = BC$, where $B =$ KFC burger per week and $C =$ tin of coke per week. Suppose that the Marginal Utility of Burger ($MU_b = C$) and Marginal utility of coke ($MU_c = B$).

- a) What is her marginal rate of technical substitution if the burgers are on the vertical axis and Coke on the horizontal axis? (2)
- b) Meke's income is N\$120, the price of one burger is N\$4, and the price of coke is N\$2. How many burgers and coke's does she consume to maximize her utility. Illustrate your answer graphically. What is the slope of the budget line? (10)
- c) When a new tax raises the price of the burgers to N\$6, what is his new optimal bundle? Illustrate your answer graphically. What would happen to her total utility as a result of the price increase? (5)
- d) Derive and plot Meke's demand curve for burgers. (3)

QUESTION 2

(10 marks)

Consider the figure below, which shows the budget constraint and the indifference curves of good King Zog. Zog is in equilibrium with an income of N\$300, facing $P_X = 4$ and $P_Y = 10$.



- 2.1 If the price of X falls to R2.5, while income and price of Y stay the same, how much X will Zog consume? (2)
- 2.2 How much income must be taken away from Zog to isolate the income substitution effects? (4)
- 2.3 The total effect of the price change is to change consumption from point to point (4)

Question 1

(10 marks)

If the inverse demand curve is $p = 120 - Q$ and the marginal cost is constant at 10, how does charging the monopoly a specific tax of $\tau = 10$ per unit affect the monopoly optimum and the welfare of consumers, the monopoly, and society (where society's welfare includes the tax revenue)? What is the incidence of the tax on consumers? (10)

TOTAL MARKS: 100

Student number:.....

ANSWER SHEET FOR SECTION A

Mark the correct answer with an X.

	A	B	C	D
1. 1.				
2. 2.				
3. .				
4.				
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