



“Investing in Africa’s future”
COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND GOVERNANCE

MEC101: ECONOMIC PRINCIPLES 1
END OF SEMESTER FINAL EXAMINATIONS

NOVEMBER-DECEMBER 2022

LECTURER: MR T. MASESE

DURATION: 3 HOURS

INSTRUCTIONS

Answer ALL QUESTIONS from this paper.

DO NOT repeat material.

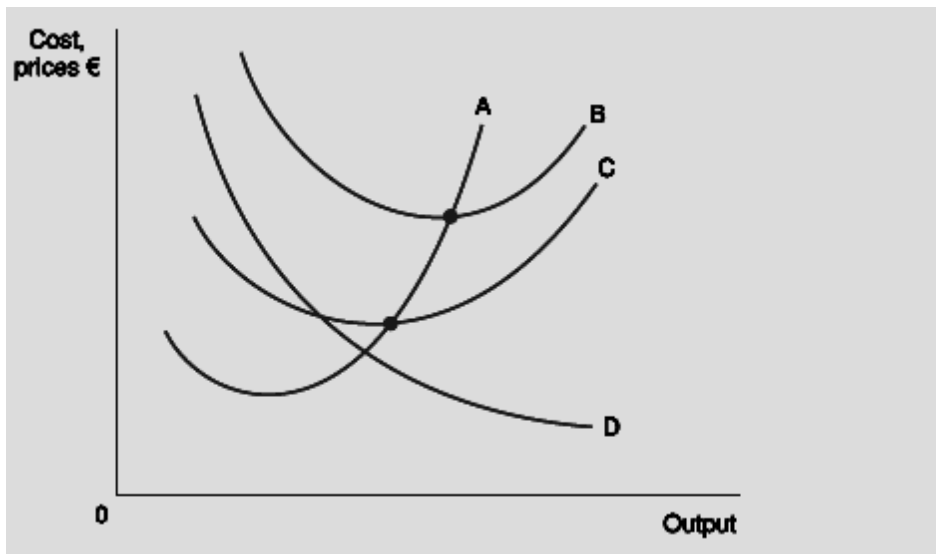
Write legibly.

Credit is given to application of theory and practice

Section A- MULTIPLE CHOICE QUESTIONS

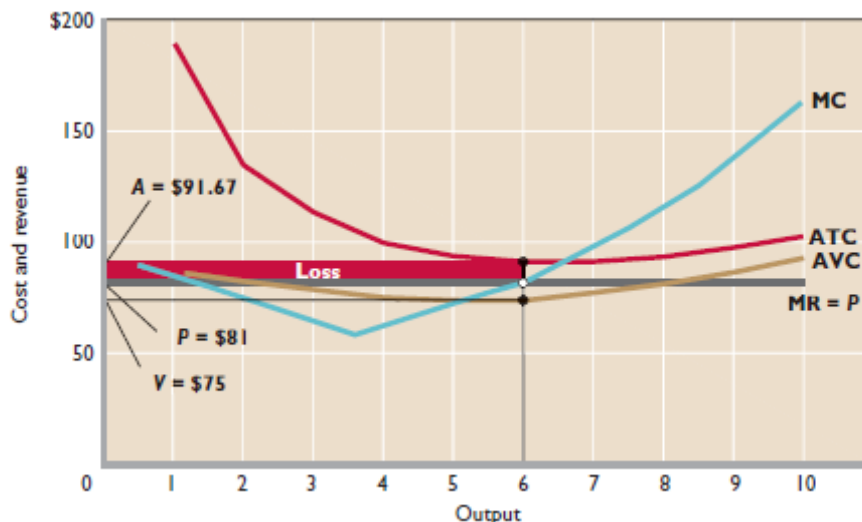
Multiple Choice Questions (10 marks)

- Determine which of the following four sentences use the terminology of the supply and demand model correctly.
 - "The price of bicycles rose, and therefore the demand for bicycles went down."
 - "The demand for bicycles increased, and therefore the price went up."
 - "The price of bicycles fell, decreasing the supply of bicycles."
 - "The supply of bicycles increased, and therefore the price of bicycles fell."
- Suppose the prices of illegal drugs fall in your community at the same time that police drug seizures increase. Which is the best explanation for this?
 - Fewer drugs are being supplied locally.
 - Police arrests are removing more drug dealers.
 - Police arrests are reducing drug consumption sharply.
 - More drugs are being supplied locally.
- The figure below represents the short-run average and marginal cost curves. The average variable cost, marginal cost and average total cost curves are represented by:



- A, B and C respectively
 - B, D and C respectively
 - C, A and D respectively
 - C, B and A respectively
 - None of the above.
- An isoquant curve reveals:
 - the various amounts of capital and output, with a fixed amount of labour
 - the various amounts of labour and capital required in order to produce the same level of output

- C. the various amounts of labour and capital required in order to produce an increased level of output
 - D. the various amounts of labour and capital required in order to produce a reduced level of output
 - E. none of the above.
5. Profit maximization is achieved where:
- A. average revenue equals average cost
 - B. total revenue equals total cost
 - C. marginal cost equals average cost
 - D. marginal revenue equals marginal cost
 - E. None of the above.
6. A rise in the price of product Y from \$50 to \$54 has resulted in the demand for product X increasing from 100 to 104 units per month. The cross elasticity of demand is:
- A. 0.2
 - B. 0.5
 - C. 1.0
 - D. 2.0
 - E. 2.4
7. In the figure below Curve MR is horizontal because:
- A. product price falls as output increases.
 - B. the law of diminishing marginal utility is at work.
 - C. the market demand for this product is perfectly elastic.
 - D. the firm is a price taker.
 - E. None of the above



8. If the average variable cost is decreasing then:
- A. marginal cost is below average variable cost
 - B. marginal cost is above average variable cost
 - C. marginal cost is equal to average variable cost
 - D. average fixed cost is increasing
 - E. none of the above.

9. A company supplies 20 units of a particular product per month at a price of \$24. If the price elasticity of supply is 4 then how many units would the company supply at a price of \$30?
- A. 5
 - B. 40
 - C. 15
 - D. 20
 - E. 10
10. A 5% increase in income leads to an increase in the quantity demanded from 24 units per week to 27 units per week. The income elasticity of demand is:
- A. 1.0
 - B. 1.5
 - C. 2.0
 - D. 2.5
 - E. 3.0

Section B: TRUE OR FALSE QUESTIONS

On your answer sheet indicate whether each statement below is True or False by inserting T for True or F for False (15 marks)

1. If the demand curve and supply curve for a firm are given by $Q_d = 200 - 2P$ and $Q_s = 50 + P$ respectively, then the equilibrium price and quantity are 50 and 100 respectively
2. The difference between the long-run and short-run in the theory of production is that in the short run all factors are variable and in the long run at least one factor is fixed.
3. If a firm cannot cover its variable costs in the short run it should shut down its operations
4. An increase in the demand for notebooks raises the number of notebooks demanded, but not the quantity supplied.
5. For each of the following pairs of goods, which statement is true or false?
 - a. The demand for required textbooks is more elastic than that for mystery novels
 - b. Demand for petrol is more elastic during the next six months or petrol during the next five years
 - c. Economists consider both explicit and implicit costs whilst accountants worry only about explicit costs.
6. In the long run, the reduction in average costs as a result of producing a variety of products is called economies of scope
7. Goods A and B are complementary if a rise in the price of good A leads to a fall in the demand for good B.
8. In the long run, the resulting reduction in costs per unit as production increases is called economies of scale
9. In perfect competition, a firm will continue to operate in the short run so long as it is covering its variable costs.
10. Monopoly operators are able to make supernormal profit in the long run because of barriers to entry.
11. Price elasticity of supply refers to how supply for a good responds to a change in the good's price
12. The change in the price of a product will lead to a shift of the whole demand curve for that product

SECTION B

Question 1

- a. Suppose a decrease in consumers' incomes causes a decrease in the demand for chicken and an increase in the demand for potatoes. Which good is inferior and which is normal? How will the equilibrium price and quantity change for each good? Illustrate with the aid of demand and supply diagrams **(6 marks)**
- b. Bob's lawn-mowing service is a profit-maximizing, competitive firm. Bob mows lawns for \$27 each. His total cost each day is \$280, of which \$30 is a fixed cost. He mows 10 lawns a day. What can you say about Bob's short-run decision regarding shutdown and his long-run decision regarding exit? **(5 marks)**
- c. If you were the president, would you be more interested in your economic advisers' positive views or their normative views? Why? **(2 marks)**
- a. Explain why it is possible for a monopoly to make supernormal profits in the long run and yet it is not possible to do the same for a perfectly competitive firm **(3 marks)**
- b. Use the supply and demand model to explain what happens to the equilibrium price and the equilibrium quantity for frozen yogurt in the following cases:
- i. There is a large expansion in the number of firms producing frozen yogurt **(2 marks)**
 - ii. It is widely publicized in the press that people who eat a cup of frozen yogurt a day live to be much happier in their retirement years. **(2 marks)**
 - iii. There is a sudden increase in the price of milk, which is used to produce frozen yogurt. **(2 marks)**
 - iv. Frozen yogurt suddenly becomes popular because Mai Titi, a celebrity promotes it in television commercials. **(2 marks)**

Question 2

- a. Consider the following supply and demand model of the world tea market (in billions of pounds).

Price per kg (\$)	Quantity Supplied	Quantity Demanded
\$38	1500	525
\$37	1000	600
\$36	700	700
\$35	600	900
\$34	550	1200

- i. Is there a shortage or a surplus when the price is \$38? What about \$34? **(2 marks)**
- ii. What are the equilibrium price and the equilibrium quantity? **(2 marks)**
- iii. Graph the supply curve and the demand curve **(3 marks)**

- iv. Show how the equilibrium price and quantity can be found on the graph
(2 mark)
 - v. If there is a shortage or surplus at a price of \$38, calculate its size in billions of pounds and show it on the graph
(2 marks).
 - vi. Calculate the price elasticity of demand and supply for tea when the price falls from \$36 to \$37. Interpret your answer.
(4 marks)
 - vii. Suppose the government imposes an effective price floor in the tea market at a price of \$37 Show this on the diagram in (iii) above. Is there a shortage or surplus of tea? Why sometimes does the government impose price ceilings and price floors on the market for tea
(3 marks)
- b. Consider the following production costs for shoes. Fill out the entries in the table below
(7 marks)

Quantity	TC	TFC	TVC	ATC	AFC	AVC	MC
0							
1				27			9
2				16			
3						5	
4						5.5	
5						8.5	

Question 3

- a. Why is the price elasticity of demand lower in the short run than in the long run? Food items often have low elasticities of demand. Suppose excellent weather leads to bumper yields of agricultural crops. Why might farmers complain about market conditions?
(5 marks)
- b. Popeye's income declines and, as a result, he buys more spinach. Is spinach an inferior or a normal good? What happens to Popeye's demand curve for spinach?
(3 marks)
- c. State and briefly explain the basic characteristics of a perfectly competitive industry or market structure. With the aid of appropriate diagrams, distinguish between the short-run and long-run equilibrium for a firm in perfect competition
(8 marks)
- d. The board of directors of an airline wishes to increase revenue. One group favors cutting airfares, and the other group favors raising airfares. What are the assumptions each group is making about the price elasticity of demand?
(5 marks)
- e. A firm faces the following; Sales \$140000, Other Explicit costs \$100 000, rent and Electricity \$10 000, opportunity cost of buildings, \$10000, imputed cost of owner's time \$15000, Opportunity Cost of Machinery \$15 000, Opportunity cost of finance, 5000 Calculate the accounting profit and the economic profit
(4 marks)

END OF PAPER