

*“Investing in Africa’s future”*

**COLLEGE OF BUSINESS, PEACE, LEADERSHIP AND  
GOVERNANCE (CBPLG)**

**NMEC101: ECONOMIC PRINCIPLES 1**

**END OF SEMESTER FINAL EXAMINATIONS**

**NOVEMBER/ DECEMBER 2019**

**LECTURER: MR T. MASESE**

**DURATION: 3 HRS**

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**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 (one mark each)

1. Consider the following table.

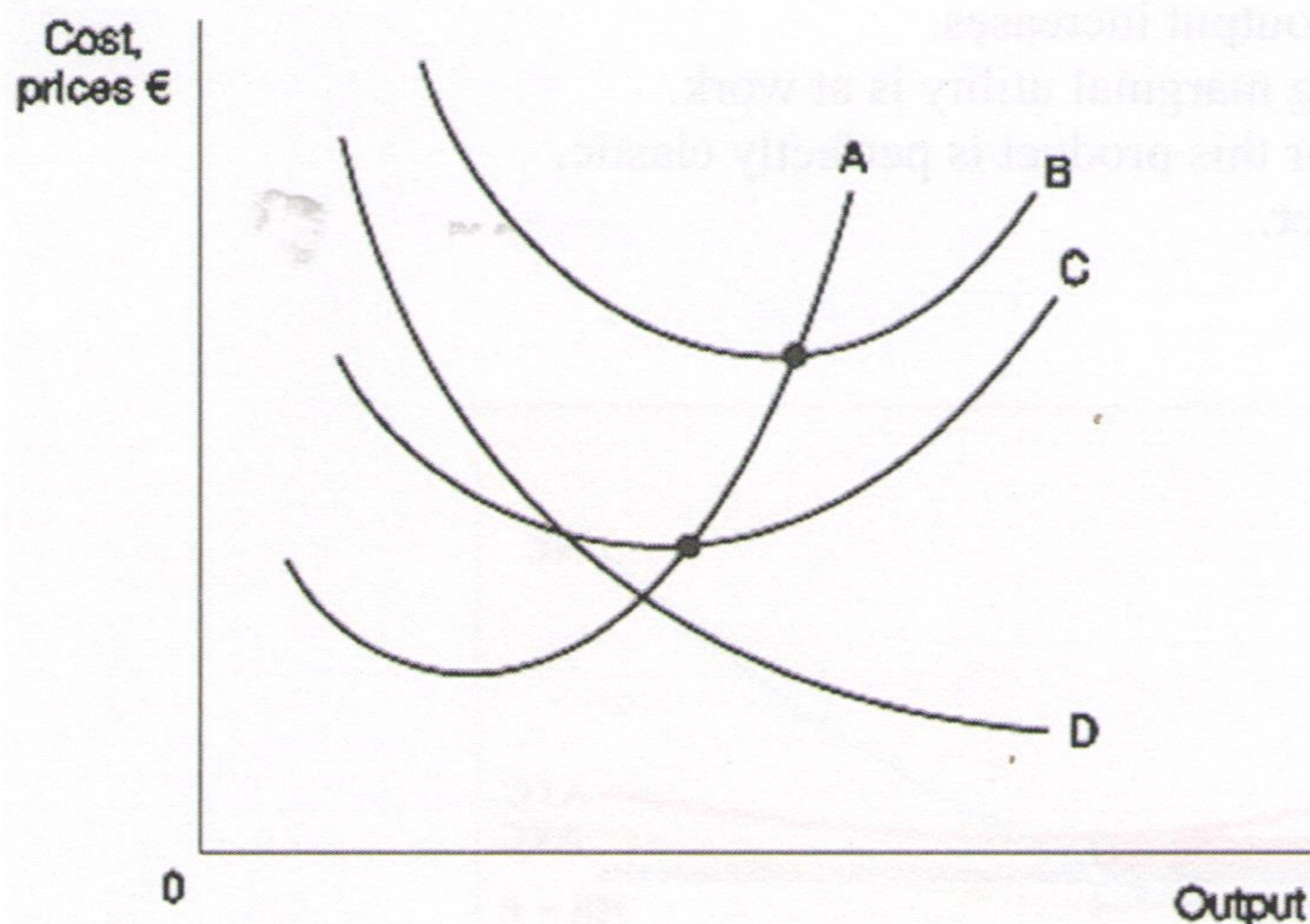
Price €	Quantity demanded	Quantity supplied
1	1,200	200
2	1,000	400
3	800	600
4	600	800
5	400	1,000
6	200	1,200

In terms of the above table, if a price of €2 is charged:

- A. The market will be in equilibrium situation
  - B. There will be a surplus of 700 units
  - C. There will be a shortage of 600 units
  - D. The price of the good will tend to fall
  - E. None of the above.
2. Supply curve S
- A. Reflects an inverse (negative) relationship between price and quantity supplied.
  - B. Reflects a direct (positive) relationship between price and quantity supplied.
  - C. Depicts the collective behavior of buyers in this market.
  - D. Shows that producers will offer more of a product for sale at a low product price than at a high product price.
3. 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.
4. 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. 10
  - C. 40
  - D. 15
  - E. 20



5. The figure below represents the short-run average and marginal cost curves. The average variable cost, marginal cost and average fixed cost curves are represented by:



- A, B and C respectively
  - B, D and C respectively
  - C, A and D respectively
  - B, A and C respectively
  - None of the above.
6. 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
  - the various amounts of labour and capital required in order to produce an increased level of output
  - the various amounts of labour and capital required in order to produce a reduced level of output
  - none of the above.
7. Suppose the demand and supply curves for a product are given by:  $Q_s = 85 + 30P$  and  $Q_d = 185 - 20P$  where  $Q_d$  is quantity demanded,  $Q_s$  is quantity supplied and  $P$  is the price. The equilibrium price  $P$  and quantity  $Q$  for this product respectively are:
- $P = 4$  and  $Q = 143$
  - $P = 3$  and  $Q = 114$
  - $P = 2$  and  $Q = 145$
  - $P = 20$  and  $Q = 185$
  - $P = 85$  and  $Q = 30$
8. 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:
- 0.2
  - 0.5
  - 1.0

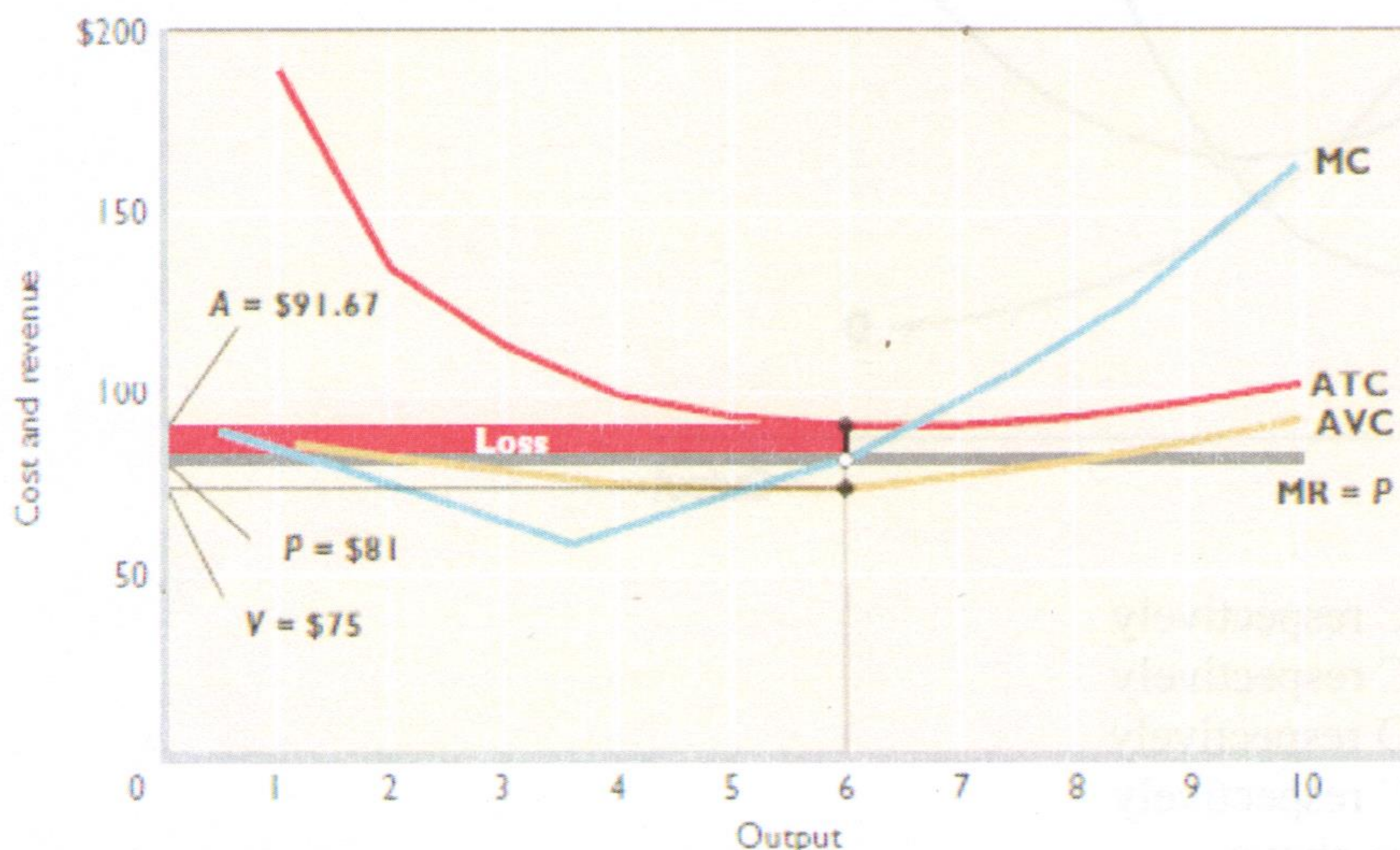


D. 2.0

E. 2.4

9. 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



10. 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.

## 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 (1 mark each)

1. If a firm cannot cover its variable costs in the short run its should shut down its operations
2. A change in supply and a change in quantity supplied are reflected by a shift in the supply curve and a movement along the supply curve respectively
3. A macroeconomic issue tends to influence all the firms and households, rather than specific firms or households.
4. In the long run, the reduction in average costs as a result of producing a variety of products is called economies of scope
5. 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.



6. In the long run, the resulting reduction in costs per unit as production increases is called economies of scale
7. In perfect competition, a firm will continue to operate in the short run so long as it is covering its variable costs.
8. Monopoly operators are able to make supernormal profit in the long run because of barriers to entry.
9. 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
10. The difference between 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.

## SECTION B- CASE STUDY

**Read the following case study and answer the following questions**

In the short run, price elasticities of demand for bus and rail fare average  $-0.42$  and  $-0.46$  respectively. Overall, short-run busfare elasticity values have risen. This can be seen to reflect an increase in car ownership and less reliance over time on the bus. In the long run, bus fare elasticities average around  $-1.01$ . A number of reasons can be put forward for this. First, the longer the time period then the greater the range of options open to the bus user affected by the fare increase. In the short run the bus passenger can switch modes or stop making the journey. In the long run, however, more options are available such as moving homes, changing jobs or buying a car. In terms of rail elasticities the increase in value over time is not as great as for buses.

*Source: Adapted from The demand for public transport: a practical guide, TRL Report TRL593, 2004*

### Questions

1. Define price elasticity of demand and comment on the short-run values for bus and rail **(5 marks)**
2. Why do you think the increase in the elasticity value of rail over time is not so great as that for bus? **(3 marks)**
3. According the case above what are the main determinants of elasticity of demand for bus transport **(7 marks)**



## SECTION C- DATA BASED QUESTIONS

- a. Give two examples of macroeconomic problems in Africa today and as well as two pressing macroeconomic problems **(2 marks)**
- b. Give two examples of normative statements about the economy and two examples of positive ones **(2 marks)**
- c. Use the principle of opportunity cost to explain why students watch more TV the week after examinations than the week before examinations **(2 marks)**
- d. Explain the difference between economic (a) accounting and economic costs and (b) accounting and economic profits **(4 marks)**
- e. What is a production possibility frontier (PPF)? What factors may lead to a shift in a PPF? **(4 marks)**
- f. Assume that demand for a commodity is represented by the equation  $P = 10 - 0.2Q_d$  and supply by the equation  $P = 2 + 0.2Q_s$ , where  $Q_d$  and  $Q_s$  are quantity demanded and quantity supplied, respectively, and  $P$  is price. Using the equilibrium condition  $Q_s = Q_d$ , solve the equations to determine equilibrium price and equilibrium quantity. Graph the two equations to substantiate your answers **(4 marks)**
- g. Suppose the government imposes an effective price floor in the cheese market. Use a supply-and demand diagram to show the effect of this policy on the price of cheese and the quantity of cheese sold. Is there a shortage or surplus of cheese? Why does government sometime impose price ceilings and price floors on the market for maize **(5 marks)**
- h. Suppose that because of a legal settlement over health care claims, tobacco companies raise the average price of a pack of cigarettes from \$1.95 to \$2.45. Also, suppose the projected decline in cigarette sales was 8%. What does this imply about the elasticity of demand for cigarettes? Explain. **(3 marks)**
- i. Suppose all the oil wells in Iran, Iraq and Kuwait are set on fire, resulting in serious and prolonged decline in the world production output of oil. With the aid of demand and supply curves, illustrate and explain how this will affect (i) the price of oil (ii) the price of coal (iii) the price of motor cars (iv) the taxi fares **(7 marks)**
- j. Explain the difference between labor and entrepreneurship as economic resources or factors of production **(2 marks)**
- k. 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 **(10 marks)**
- l. Suppose you are the Managing Director of a firm that produces 3 goods: X, Y and Z. The price elasticity of demand for X is 2.5: for Y it is 1.00: and for Z it is 0.5. The firm is experiencing serious cash flow problems and you have to increase the total revenue as soon as possible. If you were in a position to set the prices for these goods, what would be your pricing strategy for each product? Explain your answers. **(4 marks)**
- m. 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 shut down and his long run decision regarding exit? **(4 marks)**
- n. The following table shows estimates of price elasticity of demand and income elasticities for selected products. Explain the meaning of these estimates of elasticities and how the values recorded might be of use to the agricultural industry **(6 marks)**



	Beef	Potatoes	All Food
Price Elasticity of demand	-1.25	-0.21	0
Income Elasticity of demand	+0.08	-0.48	+0.01

o. Consider the following production costs for shoes

Quantity	TC	TFC	TVC	ATC	AFC	AVC	MC
0	15	A					
1	30		B				
2	35			C			
3	39				D		
4	45					E	
5	60						F

Complete the above table giving the correct values of the letters in the boxes above (6 marks)

**END OF PAPER**