

UNIVERSITY OF FORT HARE  
ALICE AND EAST LONDON CAMPUS

ECO121L & ECO121F

BACHELOR OF COMMERCE

Oct/Nov 2024

MAIN EXAMINATION

.....  
Time: 3 Hours

Subject: Introduction to Economics (Micro-Economics)

Marks: 100

This paper consists of 19 pages including the cover page

Internal Examiners

Miss S. Booï

Miss S. Mayekiso

Instructions

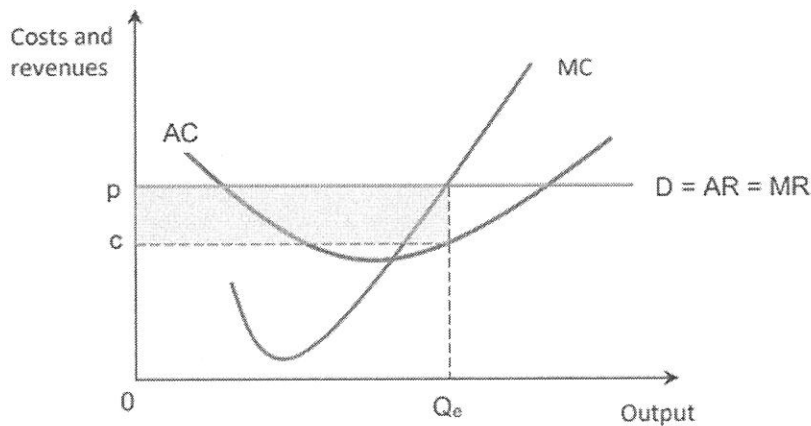
- Answer ALL questions in section A and section B
- Answer ONLY ONE question in section C, both questions carry equal marks.
- Section A is to be answered on the answer grid provided.
- Answer Section B and Section C in answer books
- The multiple-choice answer sheets are to be placed inside the examination book on completion of the examination.
- Use clearly drawn diagrams where necessary.
- Calculators are allowed.
- Answers must be rounded off to two (2) decimal places.

## Section A : Compulsory

### Question 1 [60]

1. Which of the following illustrates the concept of external cost?
  - A. Smoking harms the health of the smoker.
  - B. Bad weather reduces the size of the wheat crop.
  - C. A reduction in the size of the wheat crop causes income of wheat farmers to fall.
  - D. Smoking harms the health of nearby nonsmokers.
2. If the government allocates resources(funds) to build a bridge that will allow people and cars to cross. However, the person who was allocated the funds used them to take his family to a holiday. Then this is considered as:
  - A. Overprovision
  - B. Under provision
  - C. Misallocation of resources
  - D. None of the above
3. An essential characteristic of a public good is that it is non-excludable. This means that:
  - A. Public goods are of equal benefit to all consumers.
  - B. People could consume the goods without paying for them.
  - C. There is no opportunity cost in the provisioning of public goods.
  - D. The government should not levy a tax for providing public goods.
4. Which would definitely not be an example of price discrimination?
  - A. A theatre charges children less than adults for a movie.
  - B. Universities charge higher tuition for international students.
  - C. A doctor charges for services according to the income of patients.
  - D. An electric power company charges less for electricity used during off-peak hours when production costs are lower.
5. Under conditions of pure monopoly:
  - A. There are no close substitutes.
  - B. The firm is a price setter.
  - C. There is no advertising.
  - D. Both A and B.
6. When you purchase and eat a sandwich, no one else can eat the same sandwich. When you download a file on the Internet, the file is still available for others to download. Economists explain this difference between a sandwich and computer files by saying that the sandwich is:

- A. excludable whereas the computer file is not.
  - B. nonexcludable whereas the computer file is not.
  - C. rival in consumption whereas the computer file is not.
  - D. nonrival in consumption whereas the computer file is not.
7. Microeconomics Municipality is considering implementing a new public transportation system. This system would reduce air pollution and traffic congestion but would also require a significant investment in infrastructure. How would this impact the marginal social costs and benefits for the public transportation system?
- A. The MSB shifts to the right and MSC curve shift to the right.
  - B. The MSB shifts to the right and MSC curve shift to the left.
  - C. Only the MSC curve shift.
  - D. Only the MSB curve shift.



8. Using the diagram above, what is the firm earning?
- A. Supernormal profit.
  - B. Normal profit.
  - C. Economic loss.
  - D. None of the above.
9. Using the diagram in question 7, what does the shaded area represent?
- A. Supernormal profit.
  - B. Economic loss.
  - C. Normal profit.
  - D. Total loss.
10. A firm is operating in a perfectly competitive market and is making supernormal profits. What is the likely outcome for this firm in the long run?
- A. It will leave the industry.
  - B. The price of the product will rise.

- C. the firm's price will fall.  
D. Both the price and the firm's output will remain unchanged.
11. A natural monopoly is most likely to exist when  
A. there are extremely large economies of scale.  
B. there are large barriers to entry.  
C. there is government regulation of the industry.  
D. there are long term patents in an industry.
12. For a perfectly competitive corn grower in Nebraska, the marginal revenue curve is  
A. upward sloping.  
B. the same as its demand curve.  
C. downward sloping.  
D. vertical at the profit maximizing quantity of production.
13. A natural monopoly's average cost curve
- |      |   |
|------|---|
| i.   | intersects the demand curve while the average cost curve slopes downward.                           |
| ii.  | reaches its minimum before it intersects the demand curve.  |
| iii. | intersects the demand curve below the intersection of the marginal cost curve and the demand curve. |
- A. i, ii, and iii.  
B. ii only.  
C. i and iii.  
D. i only.
14. With price discrimination, a monopoly  
A. produces less output than if it does not price discriminate.  
B. converts consumer surplus into deadweight loss.  
C. converts producer surplus into economic profit.  
D. converts consumer surplus into economic profit.
15. Which of the following is an example of negative externality?  
A. Education.  
B. Covid 19 Vaccination.  
C. Traffic congestion.  
D. Charity donation.
16. Which of the following statement is correct about public goods.  
A. Public goods are efficiently provided by markets.  
B. A public good is a type of a natural monopoly.  
C. A free face mask that you receive from the government is an example of a public good.

- D. National defence is an example of a public good.
17. In the kinked demand curve model, when one firm increases the price of the product and the competitors do not follow, the demand curve is
- A. Elastic
  - B. Inelastic
  - C. Both A and B
  - D. None of the above.
18. The difference between the amount of money that consumers are willing to pay and the amount that they actually pay for the product is called
- A. Gain to consumers
  - B. Producer surplus
  - C. Consumer surplus
  - D. Only A and C are correct
19. Which of the following statements is/are correct about normal profits?
- |      |   |
|------|---|
| i.   | When a firm is earning normal profits, they are breaking even.                                      |
| ii.  | When a firm is earning normal profits, their average revenue is equal to their average costs.       |
| iii. | When a firm is earning normal profits, it means that they have enough revenue to cover their costs. |
- A. i, and ii are correct.
  - B. Only ii is correct.
  - C. i, ii, and iii are correct.
  - D. ii and iii are correct.
20. If a perfectly competitive firm in the short run is producing where  $P = ATC = MC$ , we can say that this firm is:
- A. earning economic profits.
  - B. at its profit-maximizing output level.
  - C. Obligated to shut down.
  - D. on the downward-sloping portion of the demand curve.
21. Which one of the following statements about the budget line is **correct**?
- |      |   |
|------|---|
| i.   | For every change in income there is a different budget line (given the prices of the products in question). |
| ii.  | The budget line is sometimes referred to as budget constraint.  |
| iii. | Consumption possibilities line is another name for budget line.   |
| iv.  | The slope of the budget line reflects the opportunity cost of the one good in terms of the other good.      |

v. A budget line illustrates the affordable combinations of two goods.

- A. ii & v only
- B. i, ii, & iii
- C. iii, iv, & v
- D. All the statements are correct

22. If the demand curve that the firm faces is downward sloping, we can reasonably believe that the

- A. firm has no control over the price of the product it sells but can vary the output.
- B. firm can influence the price of the product it sells.
- C. firm's contributions to total output of the product is insignificant.
- D. firm will have no effect on the price of the product it sells.

23. We refer to the demand for labour as

- A. final demand.
- B. primary demand.
- C. tertiary demand.
- D. derived demand.

24. Which of the following statements is true about monopoly and perfect competitive firms:

- i. Monopolist firms earn economic profits both in the short run and in the long run.
- ii. The marginal cost is also the supply curve for monopolist firms.
- iii. Loss making firms can leave the market in the long run under perfect competition.
- iv. Monopolist firms are the producers of products with no close substitutes.
- v. Perfect competitive firms can form a collusion to limit production.

- A. i, ii, v
- B. ii, iv, v
- C. i, iii, iv
- D. iii, iv, v

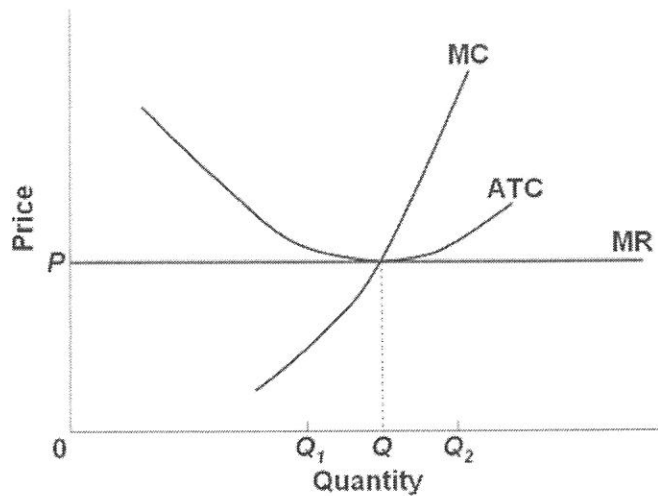
25. Suppose that Helen has R50 to spend. Coffee costs R2 and a muffin costs R5. Which of the following combinations is NOT on her budget line?

- A. 0 coffee and 10 muffins.
- B. 0 muffins and 25 coffees.
- C. 8 muffins and 5 coffees.
- D. 10 muffins and 3 coffees.

26. Francina initially leased a one-room space and started a small coffee shop with only two varieties of coffee and one staff member. But he found that the costs per coffee were very high. When he leased a larger space and expanded the coffee shop to have more varieties

of coffee and staff, the cost per coffee fell. Which of the following factors came into play when Francina expanded the coffee shop?

- A. Economies of scale
- B. Diseconomies of scale
- C. Increasing returns to the labour inputs
- D. Decreasing returns to the labour inputs



27. In the diagram above,

- A. a competitive firm that should shut down in the short run.
- B. the equilibrium position of a competitive firm in the long run.
- C. a competitive firm that is realizing an economic profit.
- D. the loss-minimizing position of a competitive firm in the short run.

28. Which of the following statement(s) is/are CORRECT about the market for labour?

- i. In the labour market, labour can be sold.
- ii. The ownership of labour cannot be transferred.
- iii. The remuneration for labour is the price.
- iv. The labour market is influenced by the nonmonetary factors such as equity, fairness, and medical.

- A. i, ii, & iii are correct.
- B. ii, iii, & iv are correct.
- C. ii and iii only.
- D. All of the above.

29. Which of the following statement(s) best describe the impact of an increase in the wage rate have on the labour market?

- i. An increase in the wage rate will cause an increase in employment and a decrease in wages.

- ii. An increase in the wage rate will cause a decrease in employment and an increase in wages.
- iii. An increase in the wage rate will cause an increase in both employment and wages.

- A. i and ii only
- B. ii only
- C. ii and iii only
- D. i and iii only

30. Under pure competition in the long run:

- A. neither allocative efficiency nor productive efficiency are achieved.
- B. both allocative efficiency and productive efficiency are achieved.
- C. productive efficiency is achieved, but allocative efficiency is not.
- D. allocative efficiency is achieved, but productive efficiency is not.

31. The convexity of the indifference curve reflects

- A. Diminishing marginal rate of substitution.
- B. Diminishing Returns to scale.
- C. Diminishing marginal utility.
- D. Increasing marginal utility.

32. The individual labour supply curve is

- A. Convex to the origin.
- B. Downward sloping
- C. Backward bending.
- D. Vertical.

33. What is the most likely market structure of an industry where economies of scale are present, and there is a high degree of interdependence between a small number of firms?

- A. monopolistic competition.
- B. Monopoly.
- C. Oligopoly.
- D. perfect competition.

34. Which of the following characteristics is most important in differentiating between perfect competition and all other types of markets?

- A. whether or not the product is standardised.
- B. whether or not there is complete market information about price.
- C. whether or not firms are price takers.
- D. All of the above are equally important.

35. Under what circumstances is a product most likely to be supplied only by the government rather than the private sector?
- A. The product is excludable and non-rival.
  - B. The product is non-excludable and non-rival.
  - C. The product is excludable and rival.
  - D. The product is non-excludable and rival.

36. Use the following table which shows the short-run production function of a bakery to answer the questions below:

Number of ovens	Number of workers	Output
3	0	0
3	1	60
3	2	140
3	3	230
3	4	300

- What is the average product when fourth worker is employed?
- A. 70
  - B. 75
  - C. 80
  - D. 76.67
37. What is the marginal product when the fourth worker is employed?
- A. 70
  - B. 75
  - C. 80
  - D. 90
38. Which of the following factors will cause a rightward shift in the supply curve in the labour market?
- A. Improvement in working conditions.
  - B. Decrease in the wage rate.
  - C. Increase in retirement benefits.
  - D. Increase in non-labour income.
39. Which of the following does not illustrate the free rider problem?
- A. Kenneth does not contribute to public television, but she watches it every day.
  - B. Ben refuses to help pay for the private security officer who patrols his neighbourhood.
  - C. Liz, a taxpayer, prefers to check out books from her local library rather than purchasing them herself.

D. Oman enjoys the fireworks from his lawn and does not purchase a ticket to view the display from the stadium.

40. Consider a budget line relating to two products, Pizza and Burger. The quantity of Pizza is plotted on the vertical axis and the quantity of Burger on the horizontal axis. Which one of the following statements is **correct**?

- i. If the price of A increases, while income and the price of B remain unchanged, the budget line will Swivel to the right.
- ii. If the consumer's income increases, while the prices of A and B remain unchanged, the budget line will shift parallel to the right.
- iii. If the prices of A and B increase by the same percentage, while income remains the same, the budget line will shift parallel to the right.
- iv. If the price of A increases, while income and the price of B remain unchanged, the budget line will swivel to the left.
- v. If the price of B decreases, while income and the price of A remain unchanged, the budget line will swivel to the right.

- A. i, ii, & v
- B. ii, iii, & iv
- C. iv & v
- D. ii, iv, & v

41. A perfectly competitive firm earns an economic profit in the short run if price is

- A. equal to average total cost.
- B. greater than average total cost.
- C. greater than average variable cost.
- D. equal to marginal cost.

42. The marginal cost curve intersects the:

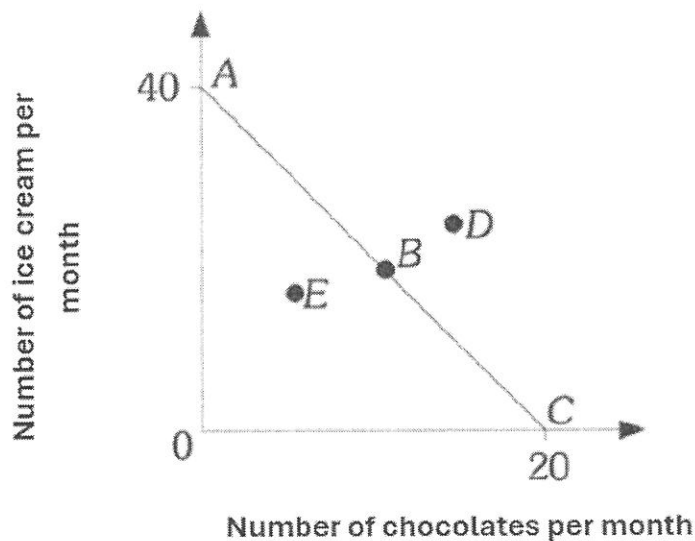
- A. AC and AVC curves at their minimum points.
- B. AC, AVC and AFC curves at their minimum points.
- C. AC and AFC curves at their minimum points.
- D. AVC and AFC curves at their minimum points.

43. The market structure in which entry into the industry is the most prohibitive(hardest) is:

- A. perfect competition
- B. monopolistic competition
- C. oligopoly
- D. pure monopoly

44. If the price of one good increase while the price of the other good and the consumer's income remain unchanged, what will happen to the budget line?

- A. The budget line rotates inward from the intercept on the axis of the good that did not change in price.
- B. The budget line rotates outward from the intercept on the axis of the good that did not change in price.
- C. The budget line shifts inward without a change in slope.
- D. The budget line shifts outward without a change in slope.



45. Josh prefers chocolates and ice cream, and his Budget line is represented by line AB in the diagram above. Using the diagram above, which combination of these goods would Josh prefer while still leaving some of his income unspent?
- A. B
  - B. E
  - C. C
  - D. None of the above
46. Free riding can occur if a good is
- A. a private good.
  - B. excludable and nonrival.
  - C. excludable and rival.
  - D. nonexcludable and nonrival.
47. Indifference curves cannot cross because
- A. The intersection point would have two levels of utility, and this is impossible.
  - B. They are always convex to the origin.
  - C. Marginal rate of substitution is diminishing.
  - D. Assumption of completeness.

48. Which of the following cost relationships is not true?

- A.  $AFC = AC - MC$
- B.  $TVC = TC - TFC$
- C. The change in TVC/the change in Q = MC.
- D. The change in TC/ the change in Q = MC.

49. Which of the following statement is true with regards to kinked demand curve?

- i. The upper portion is inelastic because if firm A increases the price above the prevailing one, no other firm will follow him. So firm A's product will become relatively more expensive, and he would lose a significant portion of his sales.
- ii. The lower portion is more elastic because if firm A reduces the price below the prevailing one, all other firm will follow him. So firm A's product will not become relatively cheaper, and his gain will be very less.

- A. Only i is correct.
- B. Only ii is correct.
- C. Both i and ii are correct.
- D. Both i and ii are incorrect.

50. A perfectly competitive firm will continue to operate in the short run when the market price is below its average total cost if the

- A. marginal cost is minimized.
- B. price is at least equal to the minimum average variable cost.
- C. price is also less than the minimum average variable cost.
- D. marginal revenue is greater than marginal cost.

51. Which of the following is not a characteristic of a public good?

- A. Non-exclusivity.
- B. Available to nonbuyers.
- C. Nonrivalry in consumption.
- D. Can be consumed only once.

52. Advertising the brand name or special features of a product, rather than the price, is an example of \_\_\_\_\_ competition.

- A. non-price.
- B. Differentiation.
- C. Imperfect.
- D. Perfect.

53. Place butter on the horizontal axis and margarine on the vertical axis. Assume that butter and margarine are perfect substitutes. Which statement best describes the shape of the indifference curves.
- S-shaped.
  - Vertical.
  - Horizontal.
  - A straight line.
54. Which of the following statements best describes the backward bending individual supply of labour?
- The individual supply of labour is described by an initial positive relationship and then a negative relationship between the wage rate and quantity of labour supplied.
  - The individual's working hours decreases when the wage rate increases beyond a certain point.
- Both i and ii are correct.
  - Only i is correct.
  - Only ii is correct.
  - None of the above.
55. If for a firm  $P = \text{minimum ATC} = MC$ , then:
- neither allocative efficiency nor productive efficiency is being achieved.
  - productive efficiency is being achieved, but allocative efficiency is not.
  - both allocative efficiency and productive efficiency are being achieved.
  - allocative efficiency is being achieved, but productive efficiency is not.
56. All of the following pertain to a perfectly competitive market except which one?
- Consumers prefer certain brands over others.
  - All firms have realized the possible economies of scale.
  - Consumers can shop for the lowest available price.
  - There is freedom of entry and exit of firms in the industry.
57. In contrast to perfect competition, a monopolist charges a
- higher price and produces a larger quantity.
  - higher price and produces a smaller quantity.
  - lower price and produces a larger quantity.
  - lower price and produces a smaller quantity.
58. Economic profit equals accounting profit minus
- explicit costs.
  - implicit costs

- C. fixed costs.
  - D. variable costs.
59. Which of the following factors will cause a rightward shift in the demand curve in the labour market?
- A. Increase in wage rate.
  - B. Increase in productivity.
  - C. Decrease in the price of the product.
  - D. Decrease in consumer demand.
60. The term allocative efficiency refers to:
- A. the level of output that coincides with the intersection of the MC and AVC curves.
  - B. minimization of the AFC in the production of any good.
  - C. the production of the product-mix most desired by consumers.
  - D. the production of a good at the lowest average total cost.

### **SECTION B: Compulsory**

#### **Question 2 [20]**

- 1.1 The ECO121L/F restaurant, located on the UFH campus, is addressing employee concerns over low wages and long working hours by adopting a robotic solution. Using a diagram, explain the impact of this decision on the demand for labour. [10]
- 1.2 Indifference curves can intersect, but only once. Do you agree with the statement? Discuss [2]
- 1.3 Sky is a university student with a monthly budget of R200. She allocates her budget between two goods: movie tickets and study snacks. The price of a movie ticket is R50, and the price of study snacks is R25 each. Sky's preferences for movies and study snacks are represented by convex indifference curves, with movies on the y-axis and study snacks on the x-axis.
- 1.3.1 Using the information above, three indifference curves and a budget line that represent Sky's preferences. [3]
- 1.3.2 Suppose the price of movie tickets increases to R100 per ticket. Show the effect of this price increase on the budget line, labelling the original budget line (PQ) and the new budget line (XY). [3]
- 1.3.3 Show how this increase in price will affect Sky's consumer equilibrium. [2]

## SECTION C

Answer only ONE question from this section

### Question 3 [20]

3.1 Mr Homes owns a small printing company. He rents a printing machine for R500 per month and buys paper at R0.50 per sheet. Mr Homes prints 100 sheets per hour.

Number of hours	Total sheets printed	Paper costs per hour (R)	Fixed costs	Variable Costs	Total costs
0	0	0			
1	100	50			
2	200	100			
3	300	150			
4	400	200			
5	500	250			

3.2.1 Use the table above to calculate the following: Fixed, variable and total costs.

[6]

3.3 Briefly distinguish between the three types of price discrimination. [6]

3.4 Using a diagram, explain in detail the long-run equilibrium of a monopolist firm. Clearly show and explain the firm's earnings and the profit-maximizing point [8]

### Question 4 [20]

4.1 Joyce owns a small café. She produces Russian and chips as a combo using labour (number of workers) as variable input. The fixed input is her café's capacity. The following table shows the total output (Russian and chips combo per day) as Joyce hires more workers.

Units of labour per day	Output	Marginal product	Average Product
0	0		
1	10		
2	18		
3	24		
4	29		
5	31		

4.1.1 Calculate the marginal product and average product of labour for each number of workers. [4]

4.1.2 Using the information on the table above, indicate whether Joyce is experiencing increasing, diminishing or negative marginal returns. [2]

4.2 Explain the difference between fixed costs and variable costs. Provide examples. [4]

