NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION
DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE

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COURSE CODE: PMI511S	COURSE NAME: PRINCIPLES OF MICROECONOMICS
SESSION: JUNE 2024	PAPER: THEORY
DURATION: 3 HOURS	MARKS: 100

1ST OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER(S)	Ms. Precious Mwikanda Mr. Mally Likukela
MODERATOR:	Mr. Eslon Ngeendepi

INSTRUCTIONS
1. **This question paper consists of 22 pages including the answer sheet. The attached ANSWER sheet must be detached and submitted to the invigilators.** 2. **Answer on the answer sheet provided at the end of the question paper, DO NOT ANSWER ON THE QUESTION PAPER.** 3. **Indicate your student number and shade it legibly.** 4. **Shade (pencil/ black pen) your answers clearly and visibly.** 5. **Items permissible: calculator, pens, pencil.**

SECTION A
40 MARKS

Instructions:

- Read all questions carefully.
- Answer by shading your answers on the answer sheet provided.

QUESTION 1 **[20 Marks]**

1. **Which of the following would most likely not shift the production possibilities curve to the left?** **[1]**

   A. A war in a country's trading partner.
   B. Economic sanctions.
   C. Reduction in economic activities for a short period.
   D. Increase in the quantity of capital goods.

2. **If a country is producing *inside* its production possibilities curve, then…** **[1]**

   A. It cannot produce more of one good without producing less of the other good.
   B. It is impossible, as you can only produce along your production possibilities curve.
   C. None of the above is true.
   D. It is inefficient in its production capabilities.

3. **Opportunity cost is:** **[1]**

   A. All production costs incurred.
   B. The value of the next best alternative action that has been sacrificed.
   C. Irrelevant because not everyone experiences it.
   D. Production cost for the entire economy.

4. **Which of the following is a correct match of an economic resource and payment for that resource?** **[1]**

   A. Land and profit
   B. Labour and rent
   C. Capital and interest
   D. Entrepreneurship and loans.

5. **The problem with a capitalistic society is.** **[1]**

   A. There will always be inflation as producers always raise their prices.
   B. There is a tendency towards income inequality.
   C. Firms in this society face too much competition.
   D. They lead to inefficient amount of choice because of overproducing.

6. **On a linear downward sloping demand curve, the elasticity of demand is zero: [1]**

   A. At its vertical intercept
   B. At its midpoint
   C. At its horizontal intercept
   D. Above the linear curve.

7. **If the quantity of a product demanded increases by 1% when the price decreases by 1%, the demand for this product is... [1]**

   A. Perfectly elastic
   B. Relatively elastic
   C. Unit elastic
   D. Relatively inelastic.

8. **If the price elasticity of demand is 0.25 and a firm increases the price of its product it would expect its total revenue to: [1]**

   A. Decrease
   B. Increase
   C. Stay the same.
   D. None of the above.

9. **Which of the following statements is correct? [1]**

   A. The motive of consumer behaviour is to maximise the production of goods and services.
   B. Cardinal approach is measured by ranking consumers' goods or service in order of preference.
   C. Ordinal utility is based on the idea that utility can be expressed in terms of numbers.
   D. Utility is closely related to the term "satisfaction".

10. **Marginal utility is best defined as the ratio of... [1]**

   A. Total quantity consumed to total utility.
   B. Total utility to the total quantity consumed.
   C. Total utility to the change in quantity consumed.
   D. The change in total utility to the change in quantity consumed.

11. **A consumer is in equilibrium when... [1]**

   A. Marginal utility is at the maximum level.
   B. A consumer aims to maximise surplus.
   C. Prices of two goods are equal.
   D. The marginal utilities per dollar of the goods consumed are equal.

12. Consumer surplus is defined as: [1]

A. The difference between what consumers would have been willing to pay and what they actually paid.
B. The benefit gained from all consumption.
C. An increase in consumption resulting from consuming one extra unit.
D. Marginal utility divided by total consumed quantities.

13. Jesse spends his income of N$ 40 on only two goods: chips and Russian sausage. Initially, the price of a Chips is N$10 and the price of Russian sausage is N$4. If the price of a chips rises to N$ 15 a kilogram, Jesse will buy ___ [1]

A. More Russian sausages
B. Fewer chips
C. More chips, fewer Russian sausages.
D. Options A and B.

14. In a perfect market, if firms are making economic profits in the short run, the following will happen: [1]

A. The equilibrium market price will decrease.
B. Producing all the output they can to make more profits.
C. Setting a high price that is least preferred by consumers.
D. Some more firms will leave the market.

15. The short-run supply curve of a firm in a perfectly competitive market is: [1]

A. Derived from the market supply curve.
B. Identical to the firm's AVC curve above its MC curve.
C. Identical to a firm's MC curve above its AVC curve.
D. The same as the firm's demand curve.

16. Which of the following is not a barrier to enter a monopolist industry? [1]

A. A business may have exclusive control of a strategic resource.
B. A business may have a patent right on his product.
C. There should be low price if the monopolist is to get approval from government.
D. A business may have a legal licence making it to be a sole supplier in a particular industry.

17. If the demand for a product is relatively price elastic, it is possible that the product is: [1]

A. Having no close substitutes.
B. A necessity.
C. A luxury.
D. A non-durable.

18. When a consumer enjoys more and more of a product and each additional unit provides him/her with less satisfaction, we can interpret this situation as [1]

A. The law of demand.
B. Decreasing total utility levels.
C. Diminishing marginal utility.
D. Diminishing marginal returns to consumer.

19. Perfectly inelastic demand entails that when the price increases by 1%, the quantities demanded decrease by: [1]

A. 0%
B. the same 1%
C. Greater than 1%
D. Smaller than 1%

20. Under perfect competition, which of the following costs will a firm continue to pay even when they have shut down? [1]

A. Average variable cost.
B. Average total cost.
C. Fixed cost.
D. Marginal cost.

QUESTION 2 **[20 Marks]**

Instructions:

- Read all the questions carefully.
- Answer by shading your answers on the answer sheet provided.

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21. Our needs and wants adds to the problem of scarcity as more and more are in need every day. [1]

A. True
B. False

22. Assume that Namibia produces both consumer goods and capital goods. Namibia's production possibilities curve for consumer goods will shift leftward if there is less consumer goods being produced. [1]

A. True
B. False

23. If a country is producing outside its production possibility frontier, then it is at full employment? [1]

A. True
B. False

24. The demand for cigarettes tend to have perfectly elastic demand. [1]

A. True
B. False

25. If a product is having price elasticity of demand greater than 1, then a decrease in its price would increase the total revenue. [1]

A. True
B. False

26. A price floor is imposed mainly to protect the interests of the producer in a particular industry. [1]

A. True
B. False

27. The number of potential buyers is one of the determinants of changes in demand. **[1]**

A. True
B. False

28. The change in total product resulting from a change in a variable input is known as an average product. **[1]**

A. True
B. False

29. A firm's total cost in the short run is the sum of its total fixed cost plus its total variable cost. **[1]**

A. True
B. False

30. In the short run, if marginal product is at its maximum, then marginal cost is at its minimum. **[1]**

A. True
B. False

31. Interest charged on a bank loan for new equipment would be regarded as a variable cost in the short run. **[1]**

A. True
B. False

32. The decrease in marginal utility as the quantity of a good being consumed increases is known as the principle of diminishing marginal returns. **[1]**

A. True
B. False

33. If all firms in a perfectly competitive market earn economic profits, new firms will be attracted to the market. The supply of the good will increase, thus lowering its price. Eventually all firms will be earning normal profit only. **[1]**

A. True
B. False

34. In a competitive market, a firm has a horizontal demand curve and in a monopolistic market, it has a U-shaped demand curve. **[1]**

A. True
B. False

35. In a competitive market, a firm cannot control the price of the product and in a monopolistic market it can. [1]

A. True
B. False

36. If a firm obtains a total revenue of N$60 by selling 3 units, a total revenue of N$80 by selling 4 units and a total revenue of N$100 by selling 5 units. The marginal revenue of the 5^{th} unit is N$20. [1]

A. True
B. False

37. A monopolist has an advantage of practising price discrimination which can lead to decreases in total profit sometimes. [1]

A. True
B. False

38. One of the conditions to practice price discrimination is that demand curves of the different segments should have different price elasticity of demand. [1]

A. True
B. False

39. Under a perfect competitive environment, the profit maximising level of output is where marginal cost equals marginal revenue. [1]

A. True
B. False

40. In a Monopoly market, firms take the market price as given, which entails that the market demand is infinitely elastic. [1]

A. True
B. False

SECTION B
60 MARKS

QUESTION 1 **[20 Marks]**

Instructions:

- Read all the questions carefully.
- Answer by shading your answers on the answer sheet provided.

Consider the following production possibilities of one agricultural farm in Namibia. Use the information in the table below to answer questions 41 to 45 below:

Table 1: Production possibilities for potatoes and fish

Maximum annual output options	Quantity of potatoes (kg)	Quantity of fish (kg)
A	1,000	0
B	800	300
C	600	500
D	400	600
E	200	650
F	0	

41. Calculate the opportunity cost of increasing annual output of potatoes from output level B to output level A, above. **[1]**

A. 0
B. 100
C. 200
D. 300

42. Calculate the opportunity cost of increasing annual output of potatoes from output level E to output level D, above. **[1]**

A. 100
B. 150
C. 50
D. 0

43. Calculate the opportunity cost of increasing fish from output levels B to output level C, above? [1]

A. 400
B. 300
C. 200
D.100

44. Calculate the opportunity cost of increasing annual output of fish from output level C to output level D, above. [1]

A. 100
B. 200
C. 300
D. 400

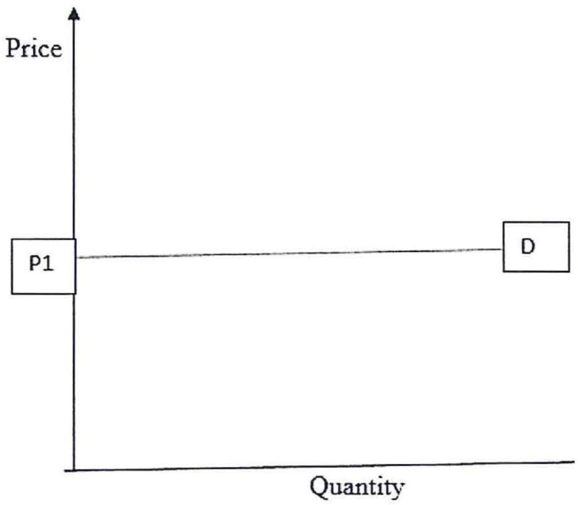
45. Which statement is correct about the law of increasing opportunity cost? [1]

A. Increasing the resources to produce both combinations is possible at any given time.
B. Increasing the production of one good increases the resource to produce both combination in the future.
C. Increasing the production of one good decreases the production of the other good at increasing quantities.
D. Increasing the cost of production for both combinations to attain economic growth.

In the following questions (46 to 50), describe what type of price elasticity is represented by the presented curves:

46. Study the demand curve in figure 1a below and choose the correct answer. [1]

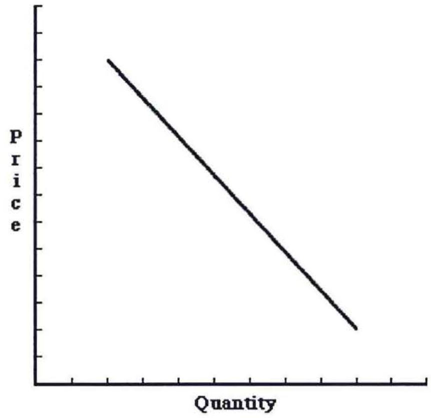
Figure 1a : Demand curve



A. Perfectly inelastic demand
B. Relatively elastic demand
C. Relatively inelastic demand
D. Perfectly elastic demand

47. Study the demand curve below and choose the correct answer. **[1]**

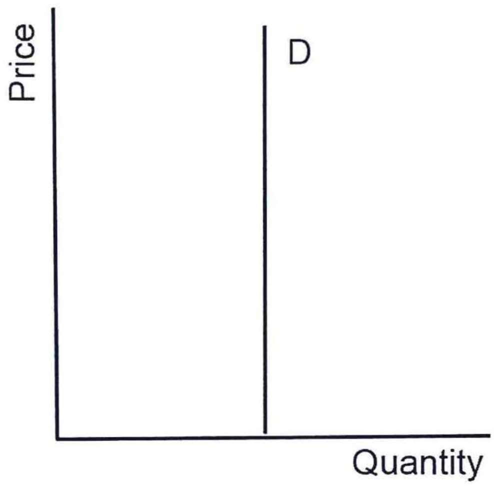
Figure 1b: Demand curve



A. Perfectly inelastic demand
B. Relatively elastic demand
C. Relatively inelastic demand
D. Perfectly elastic demand

48. Study the demand curve and choose the correct answer. **[1]**

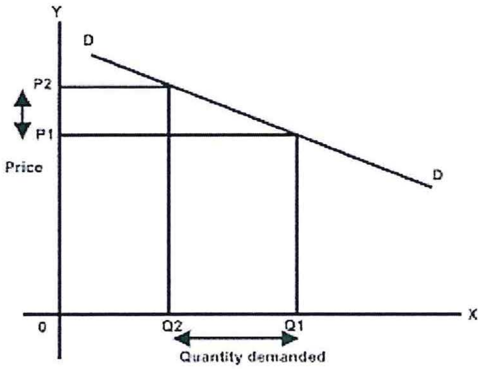
Figure 1c: Demand curve



A. Perfectly inelastic demand
B. Relatively elastic demand
C. Relatively inelastic demand
D. Perfectly elastic demand

49. Study the demand curve below and choose the correct answer. [1]

Figure 1d: Demand curve



A. Perfectly inelastic demand
B. Relatively elastic demand
C. Relatively inelastic demand
D. Perfectly elastic demand

50. How does unit elastic demand price increase affect the total revenue of a coca-cola retailer? [1]

A. Increase the revenue
B. Decreases the revenue
C. Neither increases nor decreases
D. None of the above

To answer questions 51 and 52, use the information below to calculate the elasticity of demand. Given that the Price for a product is N$25 and the quantity demanded decreased from 75 to 59 units.

51. Calculate the price elasticity of demand using point formula and choose the correct description below [2]

A. $E > 1$
B. $E < 1$
C. $E = \infty$
D. $E = 0$

52. Calculate the price elasticity of supply by using the arc formula. Then confirm which elasticity it presents from the choices below. [2]

A. E > 1
B. E < 1
C. E = ∞
D. E = 0

Marina spends N$170 each week on rice and meat. The price of rice is N$20 per unit and the price of meat is N$30 per kg. The data in Table 2 reflect the total utility Marina derives from the rice and meat. Calculate and complete the missing information in the table below to answer questions 53 to 57.

Table 2 Marina' s utility (MU) schedule for rice and meat.

TU rice	MU rice	MU/P rice	Quantity	TU meat	MU meat	MU/P meat
0	?	?	0	0	?	?
660	?	?	1	900	?	?
1 260	?	?	2	1 710	?	?
1 800	?	?	3	2 430	?	?
2 280	?	?	4	3 060	?	?

53. What is Marina's MU for rice at the 2nd quantity? [1]

A. 600
B. 300

54. What is Marina's weighted MU for rice at the 2nd quantity? [1]

A. 110
B. 30

55. What is Marina's weighted MU for meat at the 1st quantity? [1]

A. 30
B. 90

56. What is Marina's weighted MU for meat at the 3rd quantity? [1]

A. 12
B. 24

57. Marina will be in consumer equilibrium when she buys the following combinations of rice and meat: [2]

A. 4 Rice and 3 meat.
B. 2 Rice and 2 meat.

QUESTION 2 **[40 Marks]**

Instructions:

- Read all the questions carefully.
- Answer by shading your answers on the answer sheet provided.

Calculate and complete the missing information in the table below to answer questions 58 to 63 below.

Table 3: Etunda Irrigation farm's production costs

Output (Q)	Total fixed cost N$	Total variable cost N$	Total cost N$
0	30	0	?
1	30	30	?
2	30	?	71
3	30	?	79
4	?	58	88
5	?	70	100

58. Total cost at the output levels of 0 is **[1]**

A. 0
B. 30

59. Total cost at the output levels of 1 is **[1]**

A. 30
B. 60

60. Total variable cost at the output levels of 2 is **[1]**

A. 21
B. 41

61. Total variable cost at the output levels of 3 is **[1]**

A. 39
B. 49

62. Total fixed cost at output levels of 4 is **[1]**

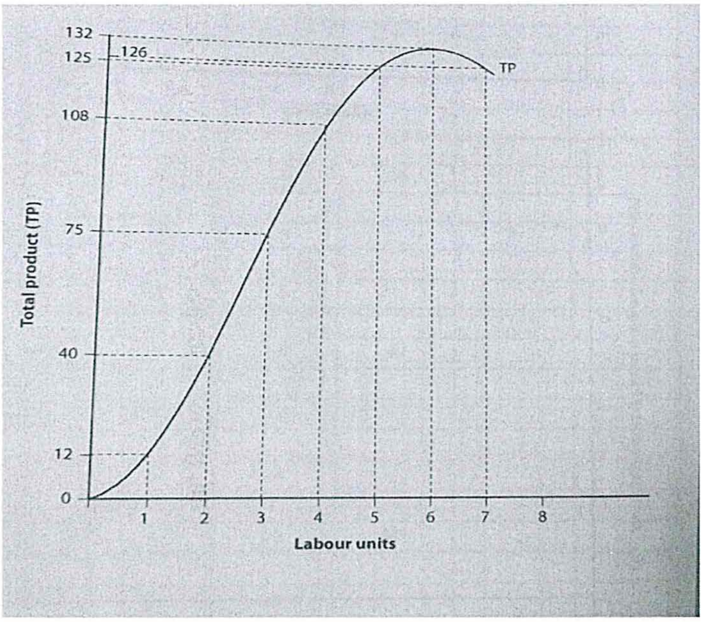
A. 30
B. 60

63. Total fixed cost at output levels of 5 is **[1]**

A. 30
B. 40

Figure 2: Barley Production curve

Study the following product curve and answer questions 64 to 67 below:



64. How many units of labour are required to produce the highest possible total product? **[1]**

A. 5 units of labour

B. 6 units of labour

C. 7 units of labour

D. 8 units of labour

65. How many additional tons of barley are produced by adding the fourth labourer to the production process? [1]

A. 75
B. 33
C. 10
D. 108

66. At how many units of labour does the law of diminishing return set in? [2]

A. 4^{th} unit of labour
B. 6^{th} unit of labour
C. 7^{th} unit of labour
D. 8th unit of labour

67. At how many units of labour does the state of technology place a limit on the total output of that can be produced? [1]

A. 4^{th} unit of labour
B. 6^{th} unit of labour
C. 7^{th} unit of labour
D. 8th unit of labour

68. In the long run we know that [1]

A. all inputs are fixed
B. all inputs are variable
C. at least one input is variable, and one is fixed.
D. output is fixed at the maximum.

69. Average product is defined as [1]

A. total product divided by marginal product
B. total product divided by the variable input
C. marginal product divided by the fixed input
D. marginal product divided by the variable input.

70. If 11 labourers can produce a total of 54 units of a product and an additional worker has a marginal product of 6, then the average product of 12 labourers is: [1]

A. 5
B. 6
C. 54
D. 60

71. **Suppose that the first four units of a variable input generate total output of 100, 250, 350, and 400 respectively. The marginal product of the third unit of input is:** **[1]**

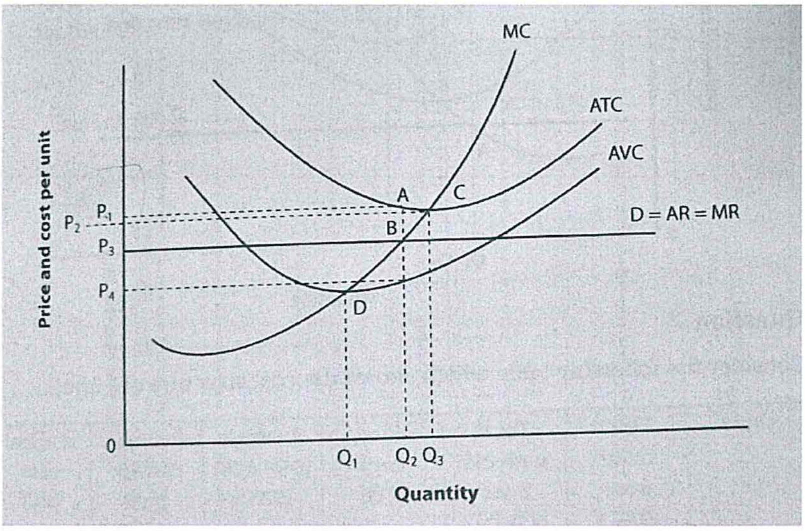
A. 50
B. 100
C. 150
D. 350

72. **If four workers can produce a total output of 18 chairs per day and five can produce a total output of 20 chairs per day, the marginal product of the fifth worker is:** **[1]**

A. two chairs
B. four chairs
C. five chairs
D. twenty chairs

The figure below presents the equilibrium position of a perfect market firm. Use this figure to answer the questions 73 to 78.

Figure 3: A firm under perfect competition



73. **What is the equilibrium price?** **[1]**

A. $0P_4$
B. $0P_3$

74. **What is the equilibrium level of output?** **[1]**

A. $0Q_2$
B. $0Q_3$

75. What is the average total cost per unit at equilibrium? **[1]**

A. $0P_1$
B. $0P_4$

76. What is the average revenue per unit? **[1]**

A. $0P_2$
B. $0P_3$

77. Is the firm making a profit or loss? **[1]**

A. loss making
B. profit making
C. no profit, no loss
D. break even

78. Can the firm continue to produce or should they shut down? **[1]**

A. continue
B. shut down

79. A condition needed for a perfectly competitive industry to exist is that: **[1]**

A. government intervenes to protect consumers.
B. there are no obstacles to the mobility of resources.
C. sellers set the price of the product.
D. buyers discriminate in their purchases based on non-price factors.

80. The average revenue by a firm in a perfectly competitive market is **[1]**

A. is equal to the market price.
B. increases with the quantity of output sold.
C. decreases with the quantity of output sold.
D. is at first greater than and later less than the marginal revenue.

81. If a perfectly competitive firm increases production from 10 to 11 and the market price is N$20 per unit, the total revenue for the 11th units would be the following:[1]

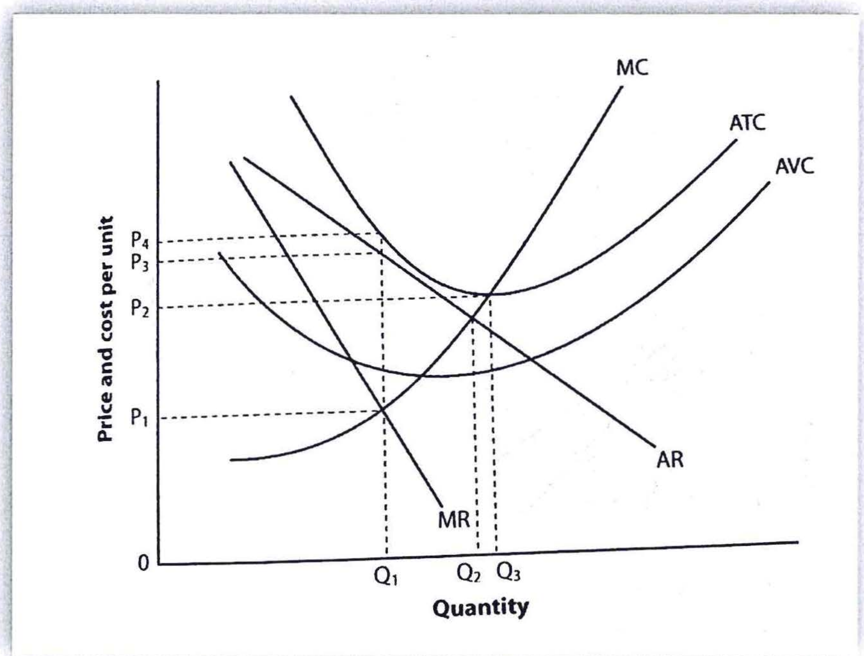
A. N$10
B. N$20
C. N$210
D. N$220

82. The demand curve for a product sold in a perfectly competitive market is .... [1]

A. unit elastic
B. perfectly elastic
C. perfectly inelastic
D. relatively elastic

Use the information in the figure below to answer questions 83 to 87.

Figure 4: A cost and demand structure of a monopolist firm



83. What are the conditions for profit maximization or loss minimization for this monopolist? [1]

A. P=AR=MR
B. MR=MC and AR > AVC

84. What is the monopolist's equilibrium quantity? [1]

A. $0Q_1$
B. $0Q_2$

85. At what price is the monopolist selling the product? [1]

A. $0P_2$
B. $0P_3$

86. What is the average total cost of producing the product? [1]

A. $0P_2$
B. $0P_4$

87. What shows you that this firm is a monopolist? **[1]**

A. The slope of the MR
B. The slope of the MC

88. Which of the following is not a characteristic of a monopolist? **[1]**

A. There is complete freedom for firms to enter or leave the market.
B. The firm and the industry are the same.
C. The firm sells a unique product that has no close substitutes.
D. Entry into the market is restricted.

89. Price discrimination ... **[1]**

A. Is based on cost differences between firms.
B. Means selling at a lower price than consumers are willing and able to pay.
C. Requires that consumers and markets are interdependent.
D. Occurs when a firm charges different consumers different prices.

90. Which of the following is not an example of price discrimination? **[1]**

A. Windhoek country club offering lower rates to students.
B. "buy two, get one free" pizza promotions at Debonairs Pizzeria.
C. the lower cost structure of momondo.com which allows it to sell cheaper airline tickets.
D. cheaper electricity during off- peak periods.

91. Giving discounts to customers is a form of price discrimination **[1]**

A. True
B. False

92. The shut - down rule applies when... **[1]**

A. P=AVC
B. P> AVC
C. P< AVC
D. MC> MR

Based on the given information in table 4 below, calculate and fill in the correct answer for questions 93 to 96. (Do not forget to shade the correct answer on your answer sheet after calculating).

Table 4: A monopolist cost and output schedule

Price	Quantity demanded	Total Cost	Marginal Cost	Profit / Loss
18	1	21		
16	2	24		
12	3	40		

93. What is the Marginal cost for this monopolist at the 1st quantity levels? **[1]**

A. 21
B. 21
C. 3
D. 0

94. What is the Marginal cost for this monopolist at the 2nd quantity levels? **[1]**

A. 16
B. 8
C. 3
D. 1

95. What is the profit (or loss) at the 1st quantity levels? **[1]**

A. - 3
B. +3
C. +24
D. -24

96. What is the profit (or loss) at the 2nd quantity levels? **[1]**

A. – 8
B. +8
C. +32
D. -32

97. What is total revenue? **[1]**

A. where total cost is less than marginal cost.
B. when average revenue is greater than marginal revenue.
C. when price is multiplied by the units sold.
D. when price is divided by the quantity produced.

(TOTAL MAKS: 100)

ALL THE BEST!!!

Surname, Initials	Study Mode/Town	Signature

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PMI 511S JUNE EXAMINATION (5687)

1	A B C D	26	A B C D	51	A B C D	75	A B C D	90	A B C D
2	A B C D	27	A B C D	52	A B C D	76	A B C D	91	A B C D
3	A B C D	28	A B C D	53	A B C D	77	A B C D	92	A B C D
4	A B C D	29	A B C D	54	A B C D	78	A B C D	93	A B C D
5	A B C D	30	A B C D	55	A B C D	79	A B C D	94	A B C D
6	A B C D	31	A B C D	56	A B C D	80	A B C D	95	A B C D
7	A B C D	32	A B C D	57	A B C D	81	A B C D	96	A B C D
8	A B C D	33	A B C D	58	A B C D	82	A B C D	97	A B C D
9	A B C D	34	A B C D	59	A B C D	83	A B C D		
10	A B C D	35	A B C D	60	A B C D	84	A B C D		
11	A B C D	36	A B C D	61	A B C D	85	A B C D		
12	A B C D	37	A B C D	62	A B C D	86	A B C D		
13	A B C D	38	A B C D	63	A B C D	87	A B C D		
14	A B C D	39	A B C D	64	A B C D	88	A B C D		
15	A B C D	40	A B C D	65	A B C D	89	A B C D		
16	A B C D	41	A B C D	66	A B C D				
17	A B C D	42	A B C D	67	A B C D				
18	A B C D	43	A B C D	68	A B C D				
19	A B C D	44	A B C D	69	A B C D				
20	A B C D	45	A B C D	70	A B C D				
21	A B C D	46	A B C D	71	A B C D				
22	A B C D	47	A B C D	72	A B C D				
23	A B C D	48	A B C D	73	A B C D				
24	A B C D	49	A B C D	74	A B C D				
25	A B C D	50	A B C D						

A

A B

Student ID

0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1
2	2	2	2	2	2	2	2	2
3	3	3	3	3	3	3	3	3
4	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5
6	6	6	6	6	6	6	6	6
7	7	7	7	7	7	7	7	7
8	8	8	8	8	8	8	8	8
9	9	9	9	9	9	9	9	9