UNIVERSITI KUALA LUMPUR
BUSINESS SCHOOL

FINAL EXAMINATION
OCTOBER 2024 SEMESTER

COURSE CODE	:	**EBB20703**
COURSE NAME	:	**MANAGERIAL ECONOMICS**
PROGRAMME NAME	:	**BACHELOR OF BUSINESS ADMINISTRATION (HONS) INTERNATIONAL BUSINESS**
DATE	:	**6 FEBRUARY 2025**
TIME	:	**9.00 AM – 12.00 PM**
DURATION	:	**3 HOURS**

INSTRUCTIONS TO CANDIDATES

1. **Please CAREFULLY read the instructions given in the question paper.**
2. **This question paper has information printed on both sides of the paper.**
3. This question paper consists of **TWO (2) Sections; Section A and Section B**.
4. Answer **ALL** questions in **Section A and Section B**.
5. Please write your answers on the answer booklet provided.
6. All questions must be answered in **English** (any other language is not allowed).
7. **This question paper must not be removed from the examination hall.**
8. Only **non-programmable calculators** are allowed.

THERE ARE FOURTEEN (14) PAGES OF QUESTIONS, INCLUDING THIS PAGE.

SECTION A (Total: 30 marks)

INSTRUCTION: Answer ALL questions.
Please use the objective answer sheet provided.

1. When you study the factors that caused a change in the price of durian in 2024, you are studying a _____ issue.
   A. moral hazard
   B. principal-agent
   C. microeconomics
   D. macroeconomics

2. Given the following general linear demand function:

$$Q_d = 700 - 9P + 0.006M - 5P_R$$

   where *M* is income and P_R is the price of a related good, *R*.

   If income increases by \$1000, what will happen?
   A. there will be a decrease of 6 units in quantity demanded, all else constant.
   B. price of related good P_R will decrease by \$4, all else constant.
   C. quantity demanded will increase by 0.006 units while price will decrease by \$9.
   D. quantity demanded will increase by 6 units if it is a normal good, all else constant.

3. Economic profit is the difference between _____.
   A. accounting profit and explicit costs
   B. total revenue and the implicit costs of using owner-supplied resources
   C. total revenue and the opportunity cost of all of the resources used in production
   D. accounting profit and the opportunity cost of the market-supplied resources used by the firm

4. An activity, A has the following marginal benefit and marginal cost functions:

$$MB = 100 - 5A$$

$$MC = 20 + 3A$$

What is the optimal level of A^*?

A. 50 C. 25

B. 30 D. 10

5. Brand Sdn. Bhd. is expected to earn economic profits of RM120,000 in the first year, RM140,000 in the second year, and RM100,000 in the third year. After the end of the third year, the firm will go out of business. If Brand Sdn. Bhd. can be sold today at the price of RM310,522.00, what is the value of the firm?

A. RM49,478.00

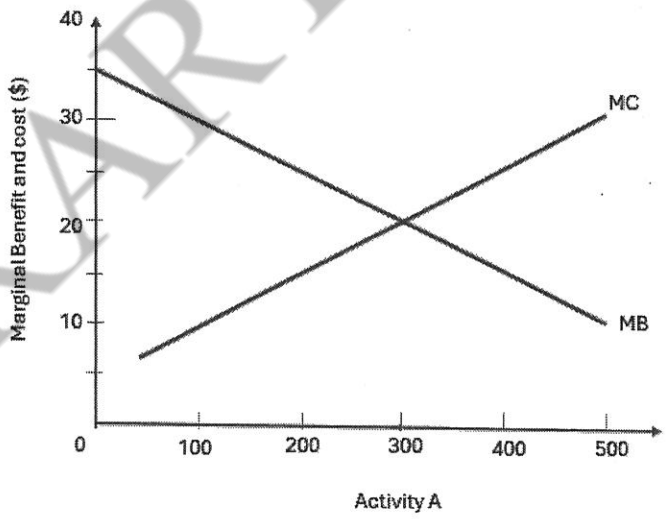
B. RM310,522.00

C. RM360,000.00

D. RM100,000.00

6. Refer to the figure 1 below which shows marginal benefits (*MB*) and marginal cost (*MC*) of activity *A*:

Figure 1: Marginal Benefit and Marginal Cost for Activity A



If the decision maker is choosing 300 units of activity *A*, _____.

A. this level maximizes net benefits

B. if the activity is increased by one unit, net benefits will increase by $20

C. if the activity is decreased by one unit, net benefits will decrease by $20

D. both B and C

Questions 7 and 8 are based on figure 2.

Figure 2. A Computer Printout

DEPENDENT VARIABLE: Y	R-SQUARE	F-RATIO	P-VALUE ON F
OBSERVATIONS: 12	0.7542	13.80	0.0018

VARIABLE	PARAMETER ESTIMATE	STANDARD ERROR	T-RATIO	P-VALUE
INTERCEPT	140.08	16.80	8.34	0.0001
X	−19.51	4.05	−4.82	0.0010
Z	1.01	0.20	5.05	0.0006

7. Choose the **CORRECT** regression.

   A. $R^2 = 0.7542$

   B. $Y = 140 - 19.5X + Z$

   C. $Y = 12 + 0.7542$R-SQUARE

   D. $Y = 140$(Intercept) $- 19.5(X) + 1.0(Z)$

8. All the statements are correct, **EXCEPT**

   A. This is the output of a multiple linear regression.

   B. All the t-ratios and F-ratio are statistically significant.

   C. The variable Y explains 75% of the independent variables of X and Z.

   D. A one unit increase in X will cause a decrease in Y by nearly 20 units.

9. The quantity demanded of star fruits will increase by 20% if the price is reduced by 10%. Select the **CORRECT** statement.

   A. The demand for star fruits is price elastic.

   B. The income elasticity of star fruits is elastic.

   C. The price elasticity of demand for star fruits is 0.5.

   D. Consumers for star fruits are not responsive to price change.

10. For a product with price elasticity of demand = - 0.3, _____.

A. quantity demanded will increase if price is increased by 0.3%

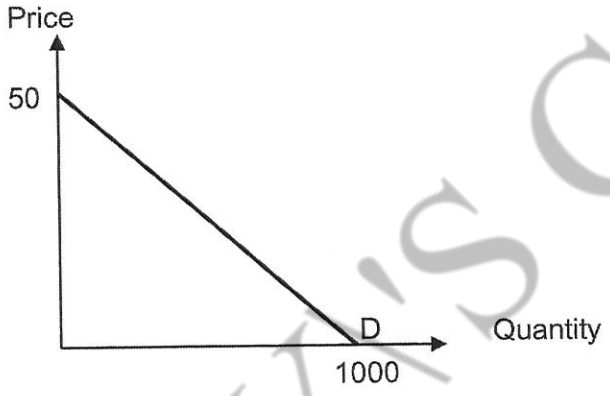
B. if the price increased by RM1, the quantity demanded will fall by 0.3

C. if the manager wished to increase total revenue, he should increase the price

D. there will be no change to total revenue whether the price is increased or decreased

11. Figure 3 shows a linear demand. The price at which total revenue is maximised is $_____.

Figure 3. Demand Curve



A. 10

B. 15

C. 20

D. 25

12. Suppose that the local hospital is considering a plan in which publics who donate blood can get heart screening for RM75 instead of the usual RM150. If both revenues for heart screening and blood donations rise with this plan, which of the following is true?

A. The demand for heart screening is price elastic.

B. The demand for heart screening is price inelastic.

C. The demand for blood donations is price elastic.

D. The demand for blood donations is price inelastic.

13. You are informed that when your sales executive reduced price of good X by 10%, the sales revenue remained unchanged. What can you conclude from this information?

A. Good X has many substitutes.
B. The price elasticity of demand for good X is inelastic.
C. Good X has a negative income elasticity of demand.
D. The quantity of good X sold has increased by exactly 10%.

14. A production function measures the relation between _____.

A. input prices and output prices
B. the quantity of inputs and input prices
C. input prices and the quantity of output
D. the quantity of inputs and the quantity of output

Refer to figure 4 and answer question 15 and 16.

Figure 4. Total Output from Various Combinations of Labour and Capital

		Units of Capital		
		1	2	3
Units of Labour	1	80	100	120
	2	180	220	260
	3	270	330	390
	4	340	420	500
	5	390	490	590
	6	410	530	650

15. If labour is fixed at 5 units, how much does the second unit of capital add to total output?

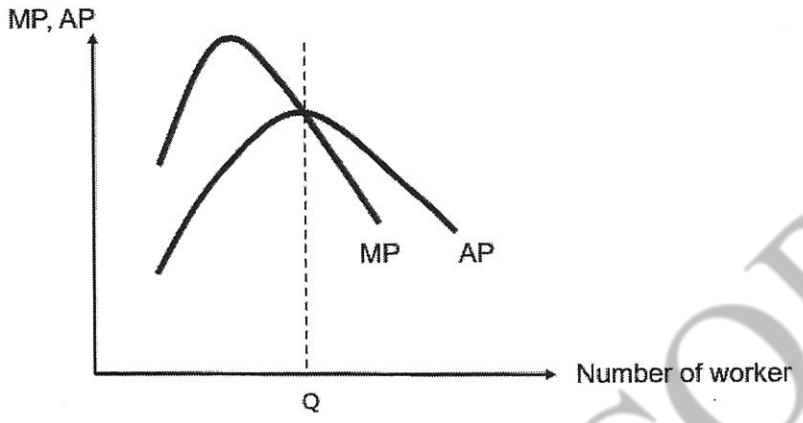
A. 100
B. 150
C. 390
D. 490

16. If capital is fixed at two units, what is the marginal product of the fifth unit of labour?

A. 60
B. 70
C. 80
D. 100

17. Figure 5 shows the relationship between marginal product (MP) and average product (AP). Choose the **CORRECT** statement.

Figure 5. MP and AP



A. The firm should employ as many workers as possible.
B. MP equals AP when Q number of workers are employed.
C. After employing Q number of workers, AP is increasing.
D. MP is increasing when the number of workers employed is less than Q.

18. The marginal rate of technical substitution is _____.
A. the slope of the isocost curve
B. the slope where two isoquants cross each other
C. the rate at which the firm can substitute labor for capital while holding total cost constant
D. the rate at which the firm can substitute labor for capital while holding output constant

19. Which of the following is **NOT** a characteristic of long-run equilibrium for a perfectly competitive firm?
A. Economic profit is zero.
B. Price is equal to long-run marginal cost.
C. Price is greater than long-run average cost.
D. The firm produces the output level at which long-run average cost is at its minimum.

20. For a price-taking firm, marginal revenue _____.

A. is the addition to total revenue from producing one more unit of output
B. increases as the firm produces more output
C. is lower than price as output increases
D. both A and C

21. Which of the following is a characteristic of a monopoly market?

A. One firm is the only supplier of a product for which there are no close substitutes.
B. The firm can decide what price to sell for their products.
C. It is very difficult for competitors to enter the market.
D. All of the above.

22. A firm with market power will maximize profit by hiring the amount of an input at which the _____.

A. last unit of input hired adds the same amount to total revenue as to total cost.
B. additional revenue from the last unit of the input hired exceeds the additional cost of the last unit by the largest amount.
C. last unit of the input hired adds the same amount to total output as to total cost.
D. additional output from the last unit of the input hired exceeds the additional cost of the last unit by the largest amount.

23. For a monopoly firm, if the demand curve stretches from price axis at RM30 and cuts the quantity axis at 400 units, the portion of demand curve which is price elastic has to be above the price of RM _____.

A. 5
B. 10
C. 15
D. 20

24. You obtained the following information: The current market price is RM3 per unit and your firm is producing an output of 50 units per day. You found out that your average total cost is RM2 per unit at this output level. Assuming you are operating in a perfectly competitive market, what is the maximum amount of profit your firm can earn per day?

A. RM45
B. RM50
C. RM100
D. RM150

25. The market demand for a monopoly firm is estimated to be:

$$Q_d = 100{,}000 - 500P + 2M + 5000P_R$$

where Q_d is quantity demanded, *P* is price, *M* is income, and P_R is the price of a related good. The manager has forecasted the values of *M* and P_R will be \$50,000 and \$20, respectively, in 2024. For 2024, the forecasted demand function is

A. Q_d = 300,000 – 500P

B. Q_d = 100,000 – 100P

C. Q_d = 600,000 – 100P

D. Q_d = 200,000 – 500*P*

26. Actions taken by oligopolists to plan for and react to actions of rival firms represent _____.

A. game theory
B. interdependence
C. strategic behavior
D. cooperative behavior

27. One reason a firm or firms might charge a price lower than its profit-maximizing price is _____.

A. to follow a tit-for-tat strategy
B. a signal of weak competition
C. to discourage the entry of new firms
D. to erect multiproduct barriers to entry

28. A firm is said to practice price discrimination if it is able to sell the same product to consumers at different prices according to _____.

A. price elasticity of each product
B. the characteristics of the product
C. the barriers to entry in each market
D. what consumers are willing and able to pay

29. A firm produces two goods (X and Y) that are related in consumption. The demand function for X is:

$$Q_d = 120 - 4P_X - 10P_Y$$

Which of the following pairs of goods might the firm be producing?

A. Cars and petrol

B. Cola and caffeine-free coke

C. Newspapers and tennis balls

D. Bran cereal and sugar-frosted corn flakes

30. For a firm to practice price discrimination, certain conditions must exist. Which of the following is **NOT** the right condition?

A. The firm must be a price taker.

B. It is not possible for consumers to buy low and sell high.

C. Price elasticity of demand for two markets must be different.

D. Firm must charge higher prices in market with less elastic demand.

SECTION B (Total: 70 marks)

INSTRUCTION: Answer ALL FIVE (5) Questions.
Please use the answer booklet provided.

Question 1 (12 marks)

(a) Explain price elasticity of demand for a good.

(5 marks)

(b) A daily newspaper company was reported to be losing about $20 million a year. A Wall Street analyst (Mr. A) recommended raising the paper's price from 50 cents to 75 cents, estimating that this would generate an additional $65 million in revenue annually. However, the paper's publisher (Mr. P) rejected the suggestion, arguing that circulation might decline sharply following the price increase. The publisher referred to The Wall Street Journal's experience, where a similar price increase resulted in a significant loss in readership.

Why did the analyst (Mr. A) and the publisher (Mr. P) have differing opinions about the price increase? Discuss the economic concepts involved in their arguments, such as price elasticity of demand, revenue, and consumers' response to price changes. (You may use Mr. A and Mr. P in your answer.)

(7 marks)

Question 2 (13 marks)

(a) Perfect competition and monopolistic competition are both market structures consist of many sellers and many buyers. However, they are different in many aspects. Explain **TWO** main differences for firms operating in these two market structures.

(6 marks)

(b) In a competitive industry, the market-determined price is RM12. For a firm currently producing 50 units of output, short-run marginal cost is RM15, average total cost is RM14, and average variable cost is RM7. Should the firm produce or shut down? Explain.

(7 marks)

Question 3 (15 marks)

Vanguard Sdn. Bhd. is selling laundry detergent and faces three big rivals in the same market. The marketing manager of Vanguard believes that sales of the company's Super Bright laundry detergent (S) are related to its own advertising expenditure (A), as well as the combined advertising expenditures of its rivals (R). The marketing manager collects 36 weekly observations on S, A, and R to estimate the following multiple regression equation:

$S = a + bA + cR$

Where S, A, and R are measured in ringgit per week. Vanguard's marketing manager is comfortable using parameter estimates that are statistically significant at the 10 percent level or better.

The regression output from the computer is as follows:

Figure 6: Computer Output

DEPENDENT VARIABLE: S	R-SQUARE	F-RATIO	P-VALUE ON F
OBSERVATIONS: 36	0.2247	4.781	0.0150

VARIABLE	PARAMETER ESTIMATE	STANDARD ERROR	T-RATIO	P-VALUE
INTERCEPT	175086.0	63821.0	2.74	0.0098
A	0.8550	0.3250	2.63	0.0128
R	−0.284	0.164	−1.73	0.0927

(a) Write the equation of the sample regression. In your answer, state each parameter clearly.

(6 marks)

(b) What is the p-value of Vanguard's advertising expenditure? Explain whether Vanguard's advertising expenditure have a statistically significant effect on the sales of Super Bright detergent.

(5 marks)

(c) If Vanguard spends RM40,000 per week and the combined advertising expenditure of the rivals are RM100,000 per week, calculate the expected level of sales each week for Vanguard.

(4 marks)

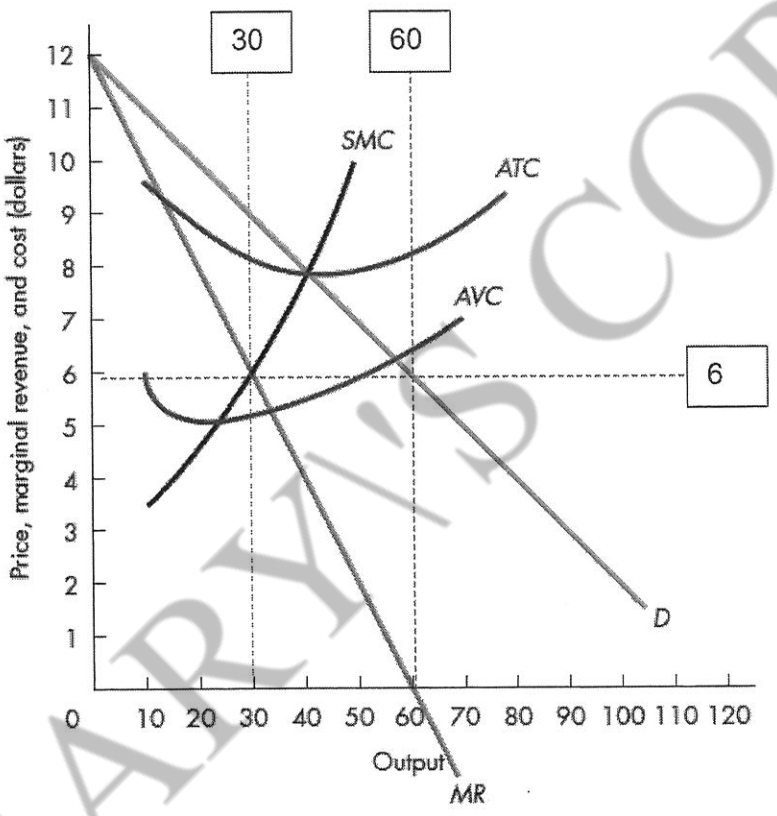
Question 4 (15 marks)

(a) Explain "barrier to entry" and provide **ONE** example.

(3 marks)

(b) A monopoly firm with short-run cost curves are shown in figure 7 below. The dotted lines are added to help you read the graph.

Figure 7. Short Run Cost Curves of a Monopoly



As the manager of this firm,

i. What rule do you follow to decide on the quantity of output?

(2 marks)

ii. Based on the diagram, what is the profit maximizing quantity to produce?

(2 marks)

iii. Based on the diagram, what is the price to set? Explain.

(4 marks)

iv. Calculate the profit based on the answers of ii and iii. Copy the above diagram into your answer script and show the profit area on the diagram.

(4 marks)

Question 5 (15 marks)

(a) Refer to table 1 below.

Table 1. Change in total product and change in number of workers using two machines for production.

Number of workers (L)	Total product (Q)	Average product	Marginal product
0	0	-	-
1	52	52	52
2	112	56	60
3	170	**d**	**e**
4	220	55	50
5	230	51.6	38
6	258	47.7	28
7	304	43.4	18
8	314	39.3	10
9	318	35.3	4
10	314	**f**	**g**

Calculate the average product and marginal product for L = 3 and L = 10 represented by d, e, f and g respectively. Show the formula and the steps of calculation.

(10 marks)

(b) Explain the difference between production in the short run and in the long run. Is the above table showing a short run production or a long run production?

(5 marks)

END OF EXAMINATION PAPER