75 questions from Business Economics

1. What economic conditions are relevant in managerial decision making?

2. What factors lead to competitive advantage for a firm?

3. What are the typical types of risk faced by a firm?

4. How do the three basic economic questions relate to the firm?

5. What other business disciplines are related to Managerial Economics?

6.Discuss Ronald Coas's main ideas given in the article of "Nature of the Firm".

7. What are transaction costs? How does opportunistic behavior tend to increase transaction costs?

8. Discuss basic reasons that profit maximization is not consistent with the maximization of shareholders' welfare.

9. Discuss the relationship between corporate organizational structure and agency problems. What are the implications of structure on management compensation plans to minimize the agency problems?

10. Describe the difference between the Economic Value Added (EVA) and the Market Value Added (MVA) approach to determining stockholder wealth.

11. A company has 1 million shares outstanding. It paid a dividend of XAZN during the past year and expects that dividends will grow at X% annually in the future. Stockholders require a rate of return of X%. What would you expect the price of each share to be today, and what is the value of the company's common stock?

12. If a stock is expected to pay an annual dividend of XAZN forever, what is the approximate present value of the stock, given that the discount rate is X%?

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14. If a stock is expected to pay an annual dividend of XAZN this year, what is the approximate present value of the stock, given that the discount rate is X% and dividends are expected to grow at a rate of X% per year?

15. If a stock is expected to pay a dividend of XAZN for the current year, what is the approximate present value of this stock, given at discount rate of X% and a dividend growth rate of X%?

16. Suppose that the demand for oranges increases. Explain the long-run effects of the guiding function of price in this scenario.

17. Suppose that the demand for oranges increases. Carefully explain how the rationing function of price will restore market equilibrium.

18. For each of the following changes, show the effect on the demand curve and state what will happen to market equilibrium price and quantity in the short run.

a. Consumers expect that the price of the good will be higher in the future.

b. The price of a substitute good rises.

c. Consumer incomes fall, and the good is normal.

d. Consumer incomes fall, and the good is inferior.

e. A medical report is published showing that this good is hazardous to your health.

f. The price of the good rises.

19. For each of the following changes, show the effect on the supply curve and state what will happen to market equilibrium price and quantity in the short run.

a. The government requires pollution control filters that raise costs on goods.

b. Wages of workers in this industry fall.

c. There is an improvement in technology.

d. The price of the good falls.

e. Producers expect that the price of the good will fall in the future.

20. List the major non-price determinants of demand and supply.

21. Calculate equilibrium price and quantity.

QD = X - XP; QS = XP

22. Annual demand and supply for the Entronics company is given by:

QD = X + X I + X A - XP, and QS = -X + XP

where Q is the quantity per year, P is price, I is income per household, and A is advertising expenditure. If A = $X and I = $X, what is the demand curve? What is equilibrium price and quantity?

23. Industry supply and demand are given by QD = x - xP and QS = xP.What is the equilibrium price and quantity? At a price of $x, will there be a shortage or a surplus, and how large will it be?

24. A good's Demand Curve is QD = x - xP, and its Supply Curve is QS = x + P. When P = $x, what is the difference, if any, between QD and QS? What are the equilibrium values of P and Q?

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26. Design a production function for a call center. Which variables would you use for this purpose? In general compare and contrast the production function for a product and one for a service.

27. Explain the relationship between marginal product and average product. Explain the use of this relationship from the firm's point of view.

28. What are the key points in a short-run production function that delineate the three stages of production? Explain the relationship between the law of diminishing returns and the three stages of production.

29. Define returns to scale. Why is this law considered a long-run production function.

30. According to the rule for optimal input stage, a firm should hire a person as long as her marginal revenue product is greater than her marginal cost to the company. It is well known that many companies have management training programs in which new trainees are paid relatively high starting salaries and are not expected to make substantial contributions to the company until after the program is over (programs may run between 6-18 months). In offering such training programs, is a company violationg the optimality rule? Explain the answer taking into consideration different factors.

31.

|  |  |
| --- | --- |
| Number of Workers | Output |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |

Calculate the marginal product of labor and At what point does diminishing returns set in?

32.

|  |  |
| --- | --- |
| Number of Workers | Output |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |

Calculate the average product of labor and Find the three stages of production.

33. Based on the table above, if the wage rate is $x and the price of output is $x, how many workers should the firm hire?

|  |  |
| --- | --- |
| Number of Workers | Output |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |
| X | X |

34. For the following functions, describe returns to scale.

Q = Kx/xLx/x

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Q = KxL

36. Explain the relevant cost understanding taking into consideration the firm and its goals.

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38. Explain the relationship between a firm's short-run production function and its short-run cost function. Focus on the marginal product of an input and the marginal cost of production.

39. Explain long-run cost function and learning curve.

40. Define economies of scale. How does this relate to returns to scale? Cite and discuss the main determinants of economies of scale.

41. Consider a firm that has just built a plant, which cost $x. Each worker costs $x per hour. Based on this information, fill in the table below.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Number of Worker Hours | Output | Marginal Product | Fixed Cost | Variable Cost | Total Cost | Marginal Cost | Average Variable Cost | Average Total Cost |
| x | x |  | x |  |  | -- | -- | -- |
| x | x |  | x |  |  |  |  |  |
| x | x |  | x |  |  |  |  |  |
| x | x |  | x |  |  |  |  |  |
| x | x |  | x |  |  |  |  |  |
| x | x |  | x |  |  |  |  |  |
| x | x |  | x |  |  |  |  |  |
| x | x |  | x |  |  |  |  |  |

42. For the following cost functions, find MC, AC, and AVC. Plot the curves on the graph. In this case indicate the point at which diminishing returns occur.

TC = x + x Q

43. The economist for the HH company has estimated the company's cost function as indicated below:

TC=x+xQ - xQx+xQx.

Plot the curve for quantities 1 to 10. Calculate the average total cost, average variable cost, and marginal cost for these quantities and plot them on the graph.

44. For the following cost functions, find MC, AC, and AVC. Plot the curves on the graph.

TC = x + xQ + xQx

45.Based on your knowledge on short-run cost complete the table.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Q | TC | TFC | TVC | AC | AFC | AVC | MC |
| x | x |  |  | x | x | x | x |
| x |  |  |  | x |  |  |  |
| x |  |  | x |  |  |  |  |
| x |  |  |  | x |  |  |  |
| x |  |  |  |  |  |  | x |
| x |  |  | x |  |  |  |  |
| x |  |  |  | x |  |  |  |
| x |  |  |  |  |  | x |  |
| x |  |  | x |  |  |  |  |
| x |  |  |  |  |  | x |  |
| x |  |  |  |  |  |  | x |

46. The Oceanic Pacific fleet has just decided to use a pole-and-line method of fishing instead

of gill netting to catch tuna. The latter method involves the use of miles of nets strung out

across the ocean and therefore entraps other sea creatures besides tuna (e.g., porpoises,

sea turtles). Concern for endangered species was one reason for this decision, but perhaps

more important was the fact that the major tuna canneries in the United States will no longer

accept tuna caught by gill netting.

Number of Fishermen Daily TunaCatch (lb)

x x

x X

x x

x X

x x

x X

x X

x x

x X

x X

Determine the point at which diminishing returns occurs. And indicate 3 stages.

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Suppose the market price of tuna is $x/pound. How many fishermen should the

company use if the daily wage rate is $x?

48. An American company that sells consumer electronics products has manufacturing facilities

in Mexico, Taiwan, and Canada. The average hourly wage, output, and annual overhead

cost for each site are as follows:

Mexico Taiwan Canada

Hourly wage rate x $x $x

Output per person x x x

Fixed overhead cost $x $x $x

Given these figures, is the firm currently allocating its production resources optimally?

If not, what should it do?

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Mexico Taiwan Canada

Hourly wage rate x $x $x

Output per person x x x

Fixed overhead cost $x $x $x

Suppose the firm wants to consolidate all its manufacturing into one facility. Where

should it locate? Explain.

50. The owner of a car wash is trying to decide on the number of people to employ based on

the following short-run production function:

Q = xL - xLx

where Q = Number of car washes per hour

L = Number of workers

Suppose the price of a basic car wash (no undercoating, no wax treatment, etc.)

in his area of business is $x. How many people should he hire if he pays each

worker $x/hour?

51. A perfectly competitive firm has total revenue and total cost curves given by:

TR = xQ

TC = x + XQ + x Qx

Find the profit-maximizing output for this firm.

52. What does it mean to say that a perfectly competitive firm is a price taker? Can't a firm set any price it chooses?

53. Explain with graphics why would a firm choose to remain in an industry in which it makes an economic profit of zero?

54. You've been hired by an unprofitable firm to determine whether it should shut down its operation. The firm currently uses x workers to produce x units of output per day. The daily wage (per worker) is $x, and the price of the firm's output is $x. The cost of other variable inputs is $X per day. Although you don't know the firm's fixed cost, you know that it is high enough that the firm's total costs exceed its total revenue. You know that the marginal cost of the last unit is $X. Should the firm continue to operate at a loss? Carefully explain your answer.

55. Suppose that a perfectly competitive industry is in long-run equilibrium, and demand increases. Explain the short- and long-run effects on the firm and the industry.

56. A monopolist has demand and cost curves given by:

QD = x - XP

TC = x + XQ

Find the monopolist's profit-maximizing quantity and price.

57. A monopolist has demand and cost curves given by:

QD = X - XP

TC = x + XQ + xQx

Find the monopolist's profit-maximizing quantity and price.

58. Describe the difference in market structure between monopoly and oligopoly.

59. Explain the difference between economic and normal profits.

60. Convenience stores with gas stations tend to sell an essentially identical variety of products and services. Yet this is generally considered to be a monopolistically competitive industry selling differentiated products. How can this be considered a differentiated product?

61. Describe the transition from short-run to long-run equilibrium in a monopolistically competitive industry.

62. When one automaker begins offering low cost financing or rebates, others tend to do the same. What two oligopoly models might offer an explanation of this behavior?

63. Microsoft has integrated many components into its Windows operating systems, such as a web browser, media player, etc. How might this be an example of nonprice competition?

64. Describe the factors in Michael Porter's "Five Forces Model" that affect the ability of any firm in an industry to earn a profit.

65. Why do cartels tend to break up?

66. A monopolist sells to students.

Demand for students: Q = x - xP

MC = X

Find the profit-maximizing price/quantity combination in market.

67. Some charge that third-degree price discrimination is unfair or that it reduces social welfare. Why does charging one group a lower price hurt anyone?

68. Firms that make game systems like Playstation and Nintendo typically charge a price close to average cost on the game system itself, and do not change that price even when the systems are scarce or demand increases. Why might this be a profit-maximizing strategy?

69. In the Sunday newspaper, there are usually coupons that you can clip and take to the store to save money on products. Anyone can buy a newspaper, and the value of the coupons easily exceeds the price of the newspaper for most consumers. Is this an example of price discrimination? Explain.

70. Would it ever make sense for a firm to charge a price at or below the cost of the product?

71. Superstar actors typically get contracts that specify that they get a percentage of "the gross," the total revenues that the movie brings in. Why might actors want contracts structured that way? Why might producers be willing to agree to that, and how does this make the goals of actors and producers different?

72. Briefly describe the conditions under which cartels will be formed.

73. Explain the reasons firms might follow the Baumol model of maximizing revenue subject to achieving a minimum level of profits.

74. A monopolist sells to non-students. Demand for non-students: Q = x - XP

Find the profit-maximizing price/quantity combination in market.

75. Explain pricing strategies.