

國立中正大學

111 學年度碩士班招生考試

試題

[第 3 節]

科目名稱	經濟學
系所組別	企業管理學系-乙組

—作答注意事項—

※作答前請先核對「試題」、「試卷」與「准考證」之系所組別、科目名稱是否相符。

1. 預備鈴響時即可入場，但至考試開始鈴響前，不得翻閱試題，並不得書寫、畫記、作答。
2. 考試開始鈴響時，即可開始作答；考試結束鈴響畢，應即停止作答。
3. 入場後於考試開始 40 分鐘內不得離場。
4. 全部答題均須在試卷（答案卷）作答區內完成。
5. 試卷作答限用藍色或黑色筆（含鉛筆）書寫。
6. 試題須隨試卷繳還。

國立中正大學 111 學年度碩士班招生考試試題

科目名稱：經濟學

本科目共 8 頁 第 1 頁

系所組別：企業管理學系-乙組

考生作答須知：

以下 50 題皆為單選題，請選出最適當之答案：每題 2 分。

1. In an infinitely repeated game, cooperation is _____ to sustain when players have a higher time discount factor.
A.impossible.
B.harder.
C.easier.
D.none of above.
2. Suppose a market has the demand function, $Q_d = 15 - 0.25P$. At which of the following prices will total revenue be maximized?
A.\$20
B.\$25
C.\$30
D.\$35
3. Suppose John spends all his income on service Z and service X. Assume the marginal utility is 500 for the last unit of service Z and 300 for the last unit of service X. Services Z cost \$22 per unit, and services X cost \$12 per unit. To maximize his utility, John should buy
A.more service X and fewer service Z.
B.only service X.
C.more service Z and fewer service X.
D.the present combination of these two services.
4. A firm has a fixed cost of 196 and a variable cost function of $49Q^2$. What is the optimal quantity of this firm to minimize the average cost?
A.2.5
B.3
C.2
D.4
5. In a market, the demand curve is $P = 45 - Q$ and the supply curve is $P = 23 + Q$, where P is the price and Q is the quantity. How much is the equilibrium consumer surplus?
A.65
B.62.5
C.63
D.60.5
6. Assume that the utility function for Mike is $U(Z, Y) = \min\{4Z, 3Y\}$. He has an income of \$1000. The price for Z is \$3 per unit, and the price for Y is \$4 per unit. Which statement below is correct?
A.He should buy 90 units of Y and 60 units of Z.
B.He should buy only 120 units of Y.
C.He should buy 160 units of Y and 120 units of Z.
D.He should buy only 140 units of Z.

國立中正大學 111 學年度碩士班招生考試試題

科目名稱：經濟學

本科目共 8 頁 第 2 頁

系所組別：企業管理學系-乙組

7. In a perfect competition industry, the long-run average cost for each firm is $Q^2 - 8Q + 22$. The demand in this industry is $Q = 594 - P$. How many firms will stay in this industry in the long-run market equilibrium?

- A.144
- B.122
- C.156
- D.176

8. A factory used 6 units of labor and 10 units of capital in 2020, and its output is 90 units. In 2021, it used 10 units of labor and 6 unit of capital, and its output is still 100 units. In 2022, it plans to use 12 units of labor and 20 units of capital; it expects that its output will be 200 units. Which statement is correct?

- A.Their production function is constant return to scale.
- B.Their production is increasing return to scale.
- C.Their production is decreasing return of scale.
- D.None of above.

9. The demand for service X is $Q = 12 - 0.3P + I$. Assume that per capita income is \$20. When the price of X is $P=\$40$, the price elasticity of demand is

- A.-1.2
- B.-0.9
- C.-1.6
- D.-0.6

10. Suppose Scott's utility function is $U(X, Y) = 4X^2Y^2$. The price of service X is \$60 per unit, and the price of service Y is \$50 per unit. Suppose Scott has an income of \$600. To maximize his utility, what should he do?

- A.He should buy 9 units of X and 6 units of Y.
- B.He should buy only 12 units of Y.
- C.He should buy 6 units of X and 12 units of Y.
- D.He should buy 5 units of X and 6 units of Y.

* Question 11 to 14. There are only two firms in an industry, firm X and firm Y (i.e., duopoly competition). Suppose the demand function is $P = 8,000 - q_X - q_Y$. Assume that firm X's total cost function is $1,000+3,000q_X$ and firm Y's total cost function is $1,200+4,000q_X$. Suppose each firm determines its production decision independently.

11. What are the best response functions for firm A and firm B under a Cournot competition?

- A. $q_X = 1,500 - \frac{q_Y}{2}$; $q_Y = 1,500 - \frac{q_X}{2}$
- B. $q_X = 1,200 - \frac{q_Y}{2}$; $q_Y = 1,500 - \frac{q_X}{2}$
- C. $q_X = 2,500 - \frac{q_Y}{2}$; $q_Y = 2,000 - \frac{q_X}{2}$
- D. $q_X = 2,400 - \frac{q_Y}{2}$; $q_Y = 3,200 - \frac{q_X}{2}$

12. What are the equilibrium outputs for firm A and firm B under a Cournot competition?

- A. $q_X = 2,000$; $q_Y = 1,000$
- B. $q_X = 1,200$; $q_Y = 1,500$
- C. $q_X = 2,500$; $q_Y = 2,500$

國立中正大學 111 學年度碩士班招生考試試題

科目名稱：經濟學

本科目共 8 頁 第 3 頁

系所組別：企業管理學系-乙組

D. $q_X = 2,400$; $q_Y = 3,200$

13. What is the equilibrium price for this product?

A. $P = 2,000$

B. $P = 3,000$

C. $P = 5,000$

D. $P = 4,000$

14. What are the profit levels for those two firms?

A. $\pi_X = 3,000,000$; $\pi_Y = 1,000,000$

B. $\pi_X = 3,400,000$; $\pi_Y = 2,000,000$

C. $\pi_X = 3,600,000$; $\pi_Y = 1,200,000$

D. $\pi_X = 3,999,000$; $\pi_Y = 998,800$

* Question 15 to 19. Suppose an entrepreneur may invest \$100 today to build a factory for producing a new product. The production plan lasts only one year; cash flows will be realized at the end of the period. A year later, due to supply and demand, the cash flow of the capital plan will be 130 or 90. The probability of high (low) cash flows is 0.5(0.5), assuming the plan's capital cost is 12.5%, while the risk-free rate is 8%. The entrepreneur has the right to sell the factory for \$110.

15. If the entrepreneur has "no" right to sell the factory for \$105 in the next period, what is the present value of the cash flow generated by the plan?

A. 130

B. 100

C. 97.7

D. 120

16. If the entrepreneur "has" the right to sell the factory for \$110 in the next period, what is the risk-neutral probability for the cash flow of the capital plan will be 130 or 90?

A. (0.45, 0.55)

B. (0.3, 0.7)

C. (0.5, 0.5)

D. (0.6, 0.4)

17. If the entrepreneur "has" the right to sell the factory for \$110 in the next period, what is the present value of the cash flows generated by the plan?

A. 115

B. 120

C. 110.18

D. 130.25

18. If the entrepreneur "has" the right to sell the factory for \$110 in the next period, what is the net present value of the cash flows generated by the plan?

A. 12

B. 10.18

C. 15

D. 18

國立中正大學 111 學年度碩士班招生考試試題

科目名稱：經濟學

本科目共 8 頁 第 4 頁

系所組別：企業管理學系-乙組

19. If the entrepreneur “has” the right to sell the factory for \$110 in the next period, what is the value of the abandonment option implicit from the right?

- A.20
- B.25.5
- C.12.48
- D.4.5

20. Which of the following statements is (are) incorrect? A market might have a monopoly because:

- A.a single firm owns an essential resource.
- B.the government gives a single firm the exclusive right to produce some good.
- C.a small number of firms, none of which can keep the others from having significant influence.
- D.the costs of production make a single producer more efficient than many producers.

21. As a group, oligopolists would always be better off if they acted collectively

- A.as if they were each seeking to maximize their profit.
- B.as a single competitor.
- C.as a single monopolist.
- D.in a manner that would prohibit collusive agreements.

22. In the arms race during the Cold War, the United States and the Soviet Union could not agree on arms reductions (i.e., a cooperative agreement) but competed in a non-cooperative outcome

- A.is optimal for one at the expense of the other.
- B.is bad for society.
- C.could not be considered a waste of economic resources.
- D.is the best possible outcome for society.

* Question 23 to 25. Suppose the following market demand function and short-term total cost (STC) function for XY Corp., a monopoly:

$$Q^D = 16 - \frac{P}{2}, STC = Q^2 + 8Q + 48$$

The monopoly will maximize the profit. For example, assume XY Corp. employs price discrimination by offering a per-unit price discount for large-volume purchases (non-linear pricing). As a result, XY Corp. will set a marginal cost pricing for larger-volume purchases and a higher price for low-volume purchases.

23. What is the profit-maximizing quantity and unit price for the larger purchaser?

- A.Q=6, P=20.
- B.Q=12, P=18.
- C.Q=8, P=16.
- D.Q=10, P=24.

24. What is the profit-maximizing quantity and unit price for the smaller purchaser?

- A.Q=2, P=24.
- B.Q=4, P=28.
- C.Q=3, P=26.
- D.Q=6, P=24.

25. What is the profit level with price discrimination for XY Corp?

- A.12

國立中正大學 111 學年度碩士班招生考試試題

科目名稱：經濟學

本科目共 8 頁 第 5 頁

系所組別：企業管理學系-乙組

B.6

C.8

D.4

26. Gross domestic product (GDP) equals the _____ of final _____ produced within a country during a given period of time.

A. market value; goods

B. market value; services

C. market value; goods and services

D. quantity; goods and services

27. Capital goods are treated as _____ goods and, therefore, _____ GDP.

A. final; included in

B. final; excluded from

C. intermediate; included in

D. intermediate; excluded from

28. A procedure that avoids counting the prices of intermediate goods multiple times in computing the value of GDP is to:

A. sum the value added of only producers of final goods and services.

B. sum the value added of only producers of intermediate goods and services.

C. sum the value added of producers of both intermediate and final goods and services.

D. subtract the value added of producers of intermediate goods and services from the value added of producers of final goods and services.

29. The practice of increasing a nominal quantity each period by an amount equal to the percentage increase in a specified price index is called:

A. a substitution bias.

B. the Fisher effect.

C. deflating.

D. indexing.

30. Which of the following transactions would cause a capital inflow to a country?

A. Exports of goods or services

B. Imports of goods or services

C. Purchasing financial assets (e.g., a corporate bond) from abroad

D. Lending money abroad

31. Assume the minimum wage exceeds the market-clearing wage. If there is an increase in the labor supply, then current number of unemployed will _____ and the number of employed will _____.

A. increase; increase

B. increase; decrease

C. increase, not change

D. decrease; increase

32. The quantity and quality of human capital, physical capital, technology, natural resources, entrepreneurship, and the legal and political environment determine the:

- A. unemployment rate.
 - B. labor force participation rate.
 - C. average labor productivity.
 - D. real interest rate.
33. A production function shows the relationship between:
- A. real and nominal variables.
 - B. average labor productivity and the share of population employed.
 - C. inputs and outputs.
 - D. inflation and unemployment.
34. Social Security benefits, welfare payments, and farm support payments are examples of:
- A. consumption spending
 - B. public interest payments
 - C. investment spending
 - D. transfer payments
35. Extremely rapid rates of money growth are usually the result of:
- A. rapid population growth.
 - B. excessively high interest rates.
 - C. large government budget deficits.
 - D. sharp increases in productivity.
36. An expansion is:
- A. a period in which the economy is growing at a rate significantly below normal.
 - B. a period in which the economy is growing at a rate significantly above normal.
 - C. the high point of economic activity prior to a downturn.
 - D. the low point of economic activity prior to a recovery.
37. Short-run equilibrium output is the level of output at which actual output:
- A. equals potential output.
 - B. is greater than potential output.
 - C. is less than potential output.
 - D. equals planned aggregate expenditure.
38. One drawback in using fiscal policy as a stabilization tool is that fiscal policy:
- A. affects potential output as well as planned aggregate expenditure.
 - B. effects are frequently offset by automatic stabilizers.
 - C. is too flexible to use to close output gaps.
 - D. is not useful for dealing with prolonged episodes of recession.
39. The interest rate that commercial banks charge each other for very short-term loans is called the:
- A. prime rate.
 - B. federal funds rate.
 - C. Federal Reserve discount rate.
 - D. commercial paper rate.
40. A higher real interest rate _____ saving and _____ consumption spending.

國立中正大學 111 學年度碩士班招生考試試題

科目名稱：經濟學

本科目共 8 頁 第 7 頁

系所組別：企業管理學系-乙組

- A. increases; increases
B. increases; decreases
C. does not change; does not change
D. decreases; increases
41. To close a recessionary gap, the Federal Reserve must _____ real interest rates by _____ the money supply.
A. increase; increasing
B. increase; decreasing
C. decrease; decreasing
D. decrease; increasing
42. The aggregate demand curve shows the relationship between short-run equilibrium output and the _____ rate.
A. nominal interest
B. real interest
C. unemployment
D. inflation
43. All else equal, an increase in the rate of inflation _____ planned spending and _____ short-run equilibrium output.
A. increases; increases
B. increases; decreases
C. decreases; decreases
D. decreases; increases
44. If the Fed's monetary policy rule does not change, then when inflation decreases the Fed responds by _____ the real interest rate, which _____ consumption and investment spending, which _____ output.
A. increasing; increases; increases
B. increasing; increases; decreases
C. increasing; decreases; decreases
D. decreasing; increases; increases
45. For a fixed target real interest rate and target inflation rate, when inflation decreases, the Fed _____ interest rates, hence _____ short-run equilibrium output.
A. increases; increasing
B. increases; decreasing
C. decreases; decreasing
D. decreases; increasing
46. For a given level of inflation, if an increase in threats to domestic security causes the government to increase military spending, then the _____ shifts _____.
A. aggregate demand curve; right
B. aggregate demand curve; left
C. short-run aggregate supply line; upward
D. short-run aggregate supply line; downward

國立中正大學 111 學年度碩士班招生考試試題

科目名稱：經濟學

本科目共 8 頁 第 8 頁

系所組別：企業管理學系-乙組

47. For a given target inflation rate, if the Federal Reserve increases the target real interest rate:
- A. the real interest rate increases along a stable monetary policy reaction function.
 - B. the real interest rate decreases along a stable monetary policy reaction function.
 - C. the monetary policy rule shifts downward to the right.
 - D. the monetary policy rule shifts upward to the left.
48. The theory that nominal exchange rates are determined so that the law of one price holds is called:
- A. the fixed-exchange-rate rule.
 - B. the equilibrium principle.
 - C. the law of supply and demand.
 - D. purchasing power parity.
49. An increase in net capital inflows to a country will:
- A. increase its real interest rates.
 - B. increase its imports.
 - C. decrease its exports.
 - D. decrease its real interest rates.
50. Capital inflows used to finance capital investment in some developing countries have:
- A. decreased domestic saving.
 - B. benefited domestic savers because of higher interest rates paid on saving accounts.
 - C. caused debt crises because the returns on the investments were less than the interest cost of the capital.
 - D. caused debt crises because the returns on the investments were greater than the interest cost of the capital.