

東吳大學 104 學年度轉學生(含進修學士班轉學生)招生考試試題

第 1 頁，共 7 頁

系級	經濟學系三年級	考試時間	100 分鐘
科目	經濟學	本科總分	100 分

說明：題目共 40 題。每一題佔 2.5 分。

- Let  $U(X, Y) = \sqrt{XY}$ . Let  $I = \$100$ ,  $P_X = \$10$  and  $P_Y = \$10$  be the initial set of prices and income. Now, let  $P_X$  rise to  $\$25$ . What are the (approximate) substitution and income effects of this change in prices?
  - Income effect = -1.3; Substitution Effect = -1.7
  - Income effect = -1.7; Substitution Effect = -1.3
  - Income effect = -3.3; Substitution Effect = -2.1
  - Income effect = -2.3; Substitution Effect = -1.7
- Suppose the consumer's utility function is given by  $U(X, Y) = XY + Y$ . The equation for this consumer's demand curve for  $X$  when  $I < P_X$  is
  - $X^d = \frac{I}{2P_X} - \frac{1}{2}$
  - $X^d = \frac{1}{2}$
  - $X^d = 0$
  - $X^d = \frac{I}{2P_X}$
- Suppose the consumer's utility function is given by  $U(X, Y) = X^{1/4}Y^{3/4}$ . The equation for this consumer's demand curve for  $x$  is
  - $X = \frac{I}{P_X}$
  - $X = \frac{3I}{4P_X}$
  - $X = \frac{I}{2P_X}$
  - $X = \frac{I}{4P_X}$
- Identify the truthfulness of the following statements.
  - It is possible for an Engel curve to be positively sloped for a certain region of income and negatively sloped for another region.
  - The income elasticity of demand for a normal good is negative.
  - I is true; II is false.
  - I is false; II is true.
  - Both I and II are true.
  - Both I and II are false.
- Consider a production function of the form  $Q = K^2L^2$ . What is the marginal rate of technical substitution of labor for capital at the point where  $K = 5$  and  $L = 5$ ?
  - 50
  - 1
  - 5
  - 25

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6. Consider a production function  $Q = 3K + 4L$ , when  $L$  is graphed on the x-axis and  $K$  is graphed on the y-axis, the marginal rate of technical substitution is equal to
- $3/4$  and the isoquant is a straight line.
  - 12 and the isoquant is convex to the origin.
  - $4/3$  and the isoquant is convex to the origin.
  - $4/3$  and the isoquant is a straight line.
7. Suppose that a consumer's demand curve for a good can be expressed as  $P = 50 - Q^d$ . Suppose that the market is initially in equilibrium at a price of \$10. Now suppose that the price rises to \$14. What is the change in consumer surplus?
- A decrease of 42.
  - A decrease of 36.
  - An increase of 38.
  - A decrease of 38.
8. A firm's production function is given by  $Q = K^2L$ . The wage rate is  $w = \$10$  and the rental rate of capital is  $r = \$20$ . What is the most efficient combination of labor and capital ( $L, K$ ) that results in a total cost level of exactly \$1,200?
- (30, 45)
  - (40, 40)
  - (20, 50)
  - (25, 47.5)
9. Suppose that a firm's production function can be specified as  $Q = 10KL$ . Which of the following accurately describes this firm's long run total cost function?
- $2\sqrt{\frac{rwQ}{10}}$
  - $2\sqrt{10Q/rw}$
  - $\frac{Q}{10K}$
  - $\frac{Q}{10L}$
10. For a particular perfectly competitive firm  $STC = 100 + 20q + q^2$ . If the market price is equal to 40, what is the maximum profit the firm can earn?
- 100
  - 0
  - 400
  - 200
11. Suppose that a market is initially in equilibrium. The initial demand curve is  $P = 90 - Q^d$ . The initial supply curve is  $P = 2Q^s$ . Suppose that the government imposes a \$3 tax on this market. How much of this \$3 is paid by producers?
- \$1.50.
  - \$2.
  - \$0.
  - \$1.

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12. Consider a perfectly competitive market with inverse market supply  $P = 5 + 3Q^s$  and inverse market demand  $P = 50 - 2Q^d$ . Suppose the government subsidizes this market with a subsidy of \$5 per unit. What is the deadweight loss resulting from the subsidy?
- 2.5
  - 5
  - 7.5
  - 0, subsidies do not have a deadweight loss

13. A monopolist faces inverse demand  $P = 300 - 6Q$  and has marginal cost  $MC = 120 + 6Q$ . What price should this monopolist charge to maximize profit?
- 210
  - 240
  - 10
  - 50

14. Which of the following describes the relation between price elasticity of demand and a monopolist's marginal revenue?
- $MR = P(1 + \epsilon_{Q,P})$
  - $MR = P(1 + \frac{P \Delta Q}{Q \Delta P})$
  - $MR = 1 + \epsilon_{Q,P}$
  - $MR = P(1 + \frac{1}{\epsilon_{Q,P}})$

15. The value of the price elasticity of demand for a good will be relatively large when
- there are no good substitutes available for the good.
  - the time period in question is relatively short.
  - the good is a luxury as opposed to a necessity.
  - All of the above are correct.

16. Suppose in a Cournot duopoly that two firms, Firm 1 and Firm 2, face market demand  $P = 50 - Q$  and both have marginal cost,  $MC = \$20$ . The equilibrium price in this market will be
- $P = 10$
  - $P = 20$
  - $P = 30$
  - $P = 40$

17. Consider the following prisoners' dilemma game. The payoff matrix contains jail sentences in terms of months.

		Player B	
		B1	B2
Player A	A1	-60, -60	0, -120
	A2	-120, 0	-12, -12

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For this game,

- a) Player A has a dominant strategy.
- b) Player B has a dominant strategy.
- c) both players have dominant strategies.
- d) neither player has a dominant strategy.

18. Under monopolistic competition, the firm optimizes

- a) by setting  $MC$  greater than  $MR$ .
- b) by setting  $MC = MR$ , but  $P < MC$ .
- c) by setting  $MC = MR = P$ .
- d) by setting  $MC = MR$ , but  $P > MC$ .

19. Which of the following would cause prices to fall and output to rise in the short run?

- a) Aggregate demand shifts right.
- b) Aggregate demand shifts left.
- c) Short-run aggregate supply shifts right.
- d) Short-run aggregate supply shifts left.

20. If the multiplier is 5, then the  $MPC$  is

- a) 0.6
- b) 0.8
- c) 0.05
- d) 0.5

21. The short-run Phillips curve shows the combinations of

- a) unemployment and inflation that arise in the short run as aggregate demand shifts the economy along the short-run aggregate supply curve.
- b) unemployment and inflation that arise in the short run as short-run aggregate supply shifts the economy along the aggregate demand curve.
- c) real GDP and the price level that arise in the short run as short-run aggregate supply shifts the economy along the aggregate demand curve.
- d) None of the above is correct.

22. If  $M = 3,000$ ,  $P = 2$ , and  $Y = 12,000$ , what is velocity?

- a)  $1/2$
- b) 2
- c) 4
- d) 8

23. Suppose that banks desire to hold no excess reserves. If the reserve requirement is 5 percent and a bank receives a new deposit of \$400, it

- a) must increase required reserves by \$20.
- b) will initially see reserves increase by \$400.
- c) will be able to use this deposit to make new loans amounting to \$380.
- d) All of the above are correct.

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24. Sam has just finished high school and started looking for his first job, but has not yet found one. Other things the same, the unemployment rate
- and the labor-force participation rate both increase.
  - increases and the labor-force participation rate is unaffected.
  - is unaffected and the labor-force participation rate increases.
  - and the labor-force participation rate are both unaffected.
25. If you deposit \$900 into an account for two years and the interest rate is 4%, how much do you have at the end of the two years?
- \$972.00
  - \$973.44
  - \$974.19
  - None of the above is correct.
26. Which of the following is the correct expression for finding the present value of a \$500 payment two years from today if the interest rate is 4 percent?
- $\$500/(1.04)^2$
  - $\$500 - 500(1.04)^2$
  - $\$500 - \$500/ (.04)^2$
  - None of the above is correct.
27. Which of the following is correct?
- Nominal GDP never equals real GDP.
  - Nominal GDP always equals real GDP.
  - Nominal GDP equals real GDP in the base year.
  - Nominal GDP equals real GDP in all years but the base year.
28. If nominal GDP doubles and the GDP deflator doubles, then real GDP
- remains constant.
  - Doubles
  - Triples
  - quadruples.
29. If the nominal interest rate is 8 percent and the rate of inflation is 3 percent, then the real interest rate is
- 5 percent.
  - 1.67 percent.
  - 5 percent.
  - 11 percent.
30. According to liquidity preference theory, if the price level increases, then the equilibrium interest rate
- rises and the aggregate quantity of goods demanded rises.
  - rises and the aggregate quantity of goods demanded falls.
  - falls and the aggregate quantity of goods demanded rises.
  - falls and the aggregate quantity of goods demanded falls.

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31. Which of the following is correct?
- Lenders sell bonds and borrowers buy them.
  - Long-term bonds usually pay a lower interest rate than do short-term bonds because long-term bonds are riskier.
  - The term *junk bonds* refers to bonds that have been resold many times.
  - None of the above is correct.
32. The principle of monetary neutrality implies that an increase in the money supply will
- increase real GDP and the price level.
  - increase real GDP, but not the price level.
  - increase the price level, but not real GDP.
  - increase neither the price level nor real GDP.
33. If the economy unexpectedly went from inflation to deflation,
- debtors would gain at the expense of creditors.
  - creditors would gain at the expense of debtors.
  - both debtors and creditors would have reduced real wealth.
  - both debtors and creditors would have increased real wealth.
34. A backward-bending labor supply curve implies that
- leisure is an inferior good.
  - the substitution effect dominates the income effect at lower wage rates but not at higher wage rates.
  - workers are irrational.
  - the substitution effect dominates the income effect at higher wage rates but not at lower wage rates.
35. A bond issuer agrees to pay a stated nominal amount each year. An increase in the nominal interest rate will cause
- the price of the bond to rise.
  - the nominal value of the bond's coupon to fall.
  - the nominal value of the bond's coupon to rise.
  - the price of the bond to fall.
36. Government policies that encourage savings
- increase interest rates.
  - lower the net present value of all investments.
  - reduce interest rates.
  - have no effect on interest rates.
37. Using a Laspeyres index to calculate the Consumer Price Index (CPI)
- weights prices with base-year quantities.
  - weights quantities with base-year prices.
  - weights quantities with current prices.
  - weights prices with current year quantities.

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38. Which of the following is an example of a normative statement?

- a) If you consume this good, you will get sick.
- b) Since this good is bad for you, you should not consume it.
- c) People usually get sick after consuming this good.
- d) This good has bad health effects.

39. If purchasing-power parity holds, then the value of the

- a) real exchange rate is equal to one.
- b) nominal exchange rate is equal to one.
- c) real exchange rate is equal to the nominal exchange rate.
- d) real exchange rate is equal to the difference in inflation rates between the two countries.

40. Which of the following lists two things that both increase the money supply?

- a) raise the discount rate, make open market purchases
- b) raise the discount rate, make open market sales
- c) lower the discount rate, make open market purchases
- d) lower the discount rate, make open market sales

**---The End. Good Luck!---**