

科目：經濟學

適用：財金系

編號：341

考生注意：

1. 依次序作答，只要標明題號，不必抄題。
2. 答案必須寫在答案卷上，否則不予計分。
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I. Multiple Choice (4 points each)

1. Bob views apples and oranges as perfect substitutes in his consumption, and $MRS = 1$ for all combinations of the two goods in his indifference map. Suppose the price of apples is \$2 per pound, the price of oranges is \$3 per pound, and Bob's budget is \$30 per week. What is Bob's utility maximizing choice between these two goods?
 - a. 4 pounds of apples and 6 pounds of oranges
 - b. 5 pounds of apples and 5 pounds of oranges
 - c. 10 pounds of oranges and no apples
 - d. 15 pounds of apples and no oranges
 - e. none of the above
2. Which of the following is true of cost curves?
 - a. The ATC (average total cost) curve goes through the minimum of the MC (marginal cost) curve.
 - b. The AVC (average variable cost) curve goes through the minimum of the MC curve.
 - c. The MC curve goes through the minimum of the ATC curve, to the left of the minimum of the AVC curve.
 - d. The MC curve goes through the minimum of the AVC curve, to the right of the minimum of the ATC curve.
 - e. The MC curve goes through the minimum of both the AVC curve and the ATC curve.
3. When a monopolist engages in perfect price discrimination,
 - a. the marginal revenue curve lies below the demand curve.
 - b. the demand curve and the marginal revenue curve are identical.
 - c. marginal cost becomes zero.
 - d. the marginal revenue curve becomes horizontal.

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4. The market demand curve for denim jeans is $Q = 231 - 45P + 23I$

where P is the product price and I is per-capita consumer income. Which of the following statements about this demand function is NOT true?

- a. Denim jeans are normal goods.
- b. The price elasticity of demand is -45 .
- c. The demand curve is downward sloping.
- d. The Engel curve for this denim jeans is upward sloping.

5. In the Stackelberg model, suppose the first-mover has

$MR = 15 - Q_1$, the second firm has reaction function $Q_2 = 15 - \frac{Q_1}{2}$,

and production occurs at zero marginal cost. Why doesn't the first-mover announce that its production is $Q_1 = 30$ in order to

exclude the second firm from the market (i.e., $Q_2 = 0$ in this case)?

- a. In this case, MR is negative and is less than MC , so the first-mover would be producing less than the optimal quantity.
- b. In this case, MR is negative and is less than MC , so the first-mover would be producing too much output.
- c. This is a possible outcome from the Stackelberg duopoly under these conditions.
- d. We do not have enough information to determine if this is an optimal outcome for this case.

6. In a Cournot duopoly, we find that Firm 1's reaction function is

$Q_1 = 50 - 0.5Q_2$, and Firm 2's reaction function is

$Q_2 = 75 - 0.75Q_1$. What is the Cournot equilibrium outcome in this market?

- a. $Q_1 = 20$ and $Q_2 = 60$

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b. $Q_1 = 20$ and $Q_2 = 20$

c. $Q_1 = 60$ and $Q_2 = 60$

d. $Q_1 = 60$ and $Q_2 = 20$

7. Let $U(x, y) = \sqrt{xy}$ and $I = \$200$, $P_x = \$10$ and $P_y = \$10$ be

the initial set of income and prices. Now, let P_x fall to \$5.

What are the substitution effect (SE) and income effect (IE) for x of this change in prices?

a. $SE = 10(\sqrt{2} - 1)$; $IE = 20 - 10\sqrt{2}$

b. $SE = 10(\sqrt{2} - 1)$; $IE = 30 - 20\sqrt{2}$

c. $SE = 20(\sqrt{2} - 1)$; $IE = 30 - 20\sqrt{2}$

d. $SE = 10(\sqrt{2} - 2)$; $IE = 30 - 10\sqrt{2}$

e. $SE = 20(\sqrt{2} - 2)$; $IE = 50 - 20\sqrt{2}$

8. Given the possible outcomes to a lottery being only the values 2, 6 with equal probabilities, calculate the expected value, variance and standard deviation?

a. $EV = 4$, variance = 16, standard deviation = 4

b. $EV = 4$, variance = 4, standard deviation = 2

c. $EV = 4$, variance = 4, standard deviation = 4

d. $EV = 4$, variance = 9, standard deviation = 3

e. $EV = 3.5$, variance = 4, standard deviation = 2

9. Suppose that your utility function is given by $U(Y) = 100 - \frac{20,000}{Y}$, where Y is your income. You have two career options. One is to be

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a government employee that will earn a guaranteed \$45,000. The other option is to be a financial analyst that will earn \$55,000 if the economy booms and earn \$25,000 if the economy slumps. There is a 50% probability for the economy to boom. If a consultant can guarantee you that it already knows whether the economy will boom or slump, what is the approximately maximum amount you are willing to pay for this information?

- a. 1500
- b. 2500
- c. 3500
- d. 4500
- e. 5500

10. An environmental economic consulting firm is hired to measure the negative externalities associated with the pollution from an industry. The consultants calculate the marginal social cost of production to be $MSC = 2Q + 30$ and the marginal private cost of production to be $MPC = Q + 30$. The market demand curve for the industry can be expressed as $P = 60 - Q$. What is the socially optimal level of output?

- a. 20 units.
- b. 15 units.
- c. 10 units.
- d. 6 units.
- e. 4 units.

11. Suppose the demand curve is $P(q) = 100 - q$ and the total cost curve is $TC = 200 + 20q$. What's the maximum profit of a monopolist? If the specific tax of $t = 10$ dollars per unit is levied

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by government, what's the maximum profit of a monopolist?

- a. 700, 525
- b. 800, 625
- c. 900, 1025
- d. 1200, 825
- e. 1400, 1025

12. The industry demand curve for a particular market is:

$$Q = 1800 - 200P$$

The industry exhibits constant long-run average cost at all levels of output, regardless of the market structure. Long-run average cost is a constant \$1.50 per unit of output. Calculate the total surplus for each of the scenarios below

- (i) Perfect Competition
- (ii) First Degree Price Discrimination

- a. (i) 1625 (ii) 2225
- b. (i) 1625 (ii) 4,218.75
- c. (i) 4,218.75 (ii) 4,218.75
- d. (i) 5625 (ii) 4,218.75
- e. (i) 5625 (ii) 5625

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13. Which of the components of total planned autonomous spending has a negative multiplier, and one which is lower in absolute value than the multiplier of the others?
- a. autonomous consumption
 - b. net taxes
 - c. planned investment
 - d. government expenditure
 - e. net exports
14. From an initial IS-LM equilibrium with a normally-sloped IS curve and a vertical LM curve, the money supply increases. At the new IS-LM equilibrium we have
- a. higher income and a lower interest rate.
 - b. higher income and an unchanged interest rate.
 - c. an unchanged income and a lower interest rate.
 - d. lower income and an unchanged interest rate.
 - e. an unchanged income and a higher interest rate.
15. After a period of building up debt to foreigners, the associated interest payments mean that ending the foreign debt increase will require
- a. a capital account surplus.
 - b. a current account surplus.
 - c. a current account deficit.
 - d. a zero balance in the capital account.
 - e. a zero balance in the current account.
16. Along a short-run aggregate supply curve firms are willing to produce more output if a _____ causes the real wage to _____.
- a. higher nominal wage, rise
 - b. lower nominal wage, fall
 - c. higher price level, rise
 - d. lower nominal wage, rise
 - e. higher price level, fall

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17. Suppose an economy falls into a recession. The central bank responds by rapidly increasing the money supply. Best for the central bank is the case where
- a. a vertical IS curve produces the largest possible reduction in the interest rate as LM shifts to the right.
 - b. a vertical IS curve allows the interest rate to remain constant while real output rises back to the natural real GDP.
 - c. a vertical IS curve allows real GDP to remain constant while the interest rate falls.
 - d. a downward-sloping IS curve causes both the interest rate and real GDP to fall.
 - e. a downward-sloping IS curve causes a falling interest rate to stimulate consumption and investment demand.
18. Governments promote long-run inflation when they depend on _____ to finance their expenditures.
- a. issuing bonds
 - b. taxation
 - c. raising the national debt
 - d. money creation
 - e. selling off assets
19. In the Solow growth model, an increase in the marginal propensity to consume shifts the _____, with the implied change in the capital stock resulting in a _____ standard of living in the long run.
- a. steady-state investment line upward, higher
 - b. steady-state investment line downward, higher
 - c. national saving line upward, lower
 - d. national saving line upward, higher
 - e. national saving line downward, lower

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20. Which of the following policies have been suggested as ways to boost the growth of productivity?
- a. tax cuts to boost saving and investment
 - b. reducing the budget deficit by raising taxes and cutting expenditures
 - c. increasing public investment in education
 - d. redesigning and scaling back the regulatory apparatus of the federal government
 - e. all of the above
21. Suppose that a bond-financed deficit shifts the IS curve to the right, taking IS-LM equilibrium "northeast" from point A to point B. If government bonds are considered net wealth by the public sector, then by the portfolio theory of asset-holding there is an excess _____ money at point B because the LM curve has shifted _____ with increased wealth, and thus the fiscal policy turns out to be _____ expansionary than without the wealth effect.
- a. demand for, downward, more
 - b. demand for, downward, less
 - c. demand for, upward, less
 - d. supply of, downward, more
 - e. supply of, upward, more
22. In the life-cycle hypothesis, if a person enters working life with an inherited stock of assets, this
- a. raises his consumption during the working years.
 - b. raises his consumption during the retirement years.
 - c. raises his consumption in every year.
 - d. lowers his consumption during the retirement years.
 - e. lowers his consumption during the working years.

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23. What all "New Classical" models have in common is the assumption of
- a. imperfect information.
 - b. continuous clearing of product and labor markets.
 - c. the primary importance of technological and supply shocks in causing business cycles.
 - d. downward nominal wage rigidity.
 - e. countercyclical real wages.
24. In the fooling model, should an expansion of aggregate demand cause fooling, the actual real wage _____ while the expected real wage _____.
- a. rises, rises
 - b. rises, remains constant
 - c. falls, falls
 - d. falls, remains constant
 - e. falls, rises
25. The increase in speed and power of personal computers over the past fifteen years has been phenomenal. Such technological change, with the old being ever more quickly replaced by the new, suggests growing _____ in _____ investment.
- a. instability, net
 - b. instability, net and gross
 - c. instability, gross
 - d. stability, net and gross
 - e. stability, net

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