

國立交通大學 104 學年度碩士班考試入學試題

科目：經濟學(5152)

考試日期：104 年 2 月 6 日 第 3 節

系所班別：科技管理研究所

組別：科管所乙組

第 / 頁, 共 4 頁

【可使用計算機】*作答前請先核對試題、答案卷(試卷)與准考證之所組別與考科是否相符!!

壹、申論題 (共 40 分；中文、英文作答皆可，但不得混用)

1. There are 140 residents in a small town. The table below shows the demand schedule of the cell phone service with unlimited anytime minutes and free phone.

Q	140	130	120	110	100	90	80	70	60	50	40	30	20	10	0
P	0	5	10	15	20	25	30	35	40	45	50	55	60	65	70

- (1) If the market is perfectly competitive, given that the marginal cost is \$10 and fixed cost is \$0 for each firm, what are the equilibrium price and quantity of the market? What are the consumer surplus and producer surplus? What is the profit of each firm? (5%)
 - (2) If the market is monopolistic, given that the marginal cost is \$10 and fixed cost is \$0 for the firm, what are the equilibrium price and quantity of the market? What is the total surplus? What is the deadweight loss? What is the profit of the firm? (10%)
 - (3) If the market is duopolistic, given that the marginal cost is \$10 and fixed cost is \$0 for each firm, what are the equilibrium price and quantity of the market when the two firms make decisions simultaneously? What is the profit of each firm? (10%)
2. The banking system currently has \$10 billion of reserves, none of which are excess. People hold only deposits and no currency, and the reserve requirement is 10 percent. If the Fed raises the reserve requirement to 20 percent and at the same time buys \$1 billion worth of bonds, then by how much does the money supply change? (5%)
3. The crude oil price drops significantly in 2014. Who are the winners (losers) and why? Please use your economics knowledge to give a brief explanation. (10%)

貳、單一選擇題 (請使用答案卡作答；共 60 分，每題 2.5 分，答錯不倒扣)

1. The phenomenon of *scarcity* stems from the fact that
 - a. most economies' production methods are not very good.
 - b. in most economies, wealthy people consume disproportionate quantities of goods and services.
 - c. governments restrict production of too many goods and services.
 - d. resources are limited.
2. Which of the following statements best represents the principle represented by the adage, "There is no such thing as a free lunch"?
 - a. Melissa can attend the concert only if she takes her sister with her.
 - b. Greg is hungry and homeless.
 - c. Brian must repair the tire on his bike before he can ride it to class.
 - d. Kendra must decide between going to Colorado or Cancun for spring break.
3. As a result of a successful attempt by government to cut the economic pie into more equal slices,
 - a. the pie gets larger, and there will be more pie overall.
 - b. the pie gets smaller, and there will be less pie overall.
 - c. it increases the reward for working hard, resulting in people producing more goods and services.
 - d. those who earn more income pay less in taxes.
4. Unemployment would cause an economy to
 - a. produce inside its production possibilities frontier.
 - b. produce on its production possibilities frontier.

國立交通大學 104 學年度碩士班考試入學試題

科目：經濟學(5152)

考試日期：104 年 2 月 6 日 第 3 節

系所班別：科技管理研究所

組別：科管所乙組

第 2 頁, 共 4 頁

【可使用計算機】*作答前請先核對試題、答案卷(試卷)與准考證之所組別與考科是否相符!!

- c. produce outside its production possibilities frontier.
 - d. experience an inward shift of its production possibilities frontier.
5. Which of the following areas of study typifies macroeconomics as opposed to microeconomics?
- a. the effects of rent control on the availability of housing in Taipei city
 - b. the economic impact of typhoons on cities and towns in Taiwan
 - c. how tariffs on shoes affects the shoe industry
 - d. the effect on the economy of changes in the nation's unemployment rate
6. The producer that requires a smaller quantity of inputs to produce a certain amount of a good, relative to the quantities of inputs required by other producers to produce the same amount of that good,
- a. has a low opportunity cost of producing that good, relative to the opportunity costs of other producers.
 - b. has a comparative advantage in the production of that good.
 - c. has an absolute advantage in the production of that good.
 - d. should be the only producer of that good.
7. Trade between countries
- a. allows each country to consume at a point outside its production possibilities frontier.
 - b. limits a country's ability to produce goods and services on its own.
 - c. must benefit both countries equally; otherwise, trade is not mutually beneficial.
 - d. can best be understood by examining the countries' absolute advantages.
8. Assume the market for pork is perfectly competitive. When one pork buyer exits the market,
- a. the price of pork increases.
 - b. the price of pork decreases.
 - c. the price of pork does not change.
 - d. there is no longer a market for pork.
9. The law of demand states that, other things equal, an increase in
- a. price causes quantity demanded to increase.
 - b. price causes quantity demanded to decrease.
 - c. quantity demanded causes price to increase.
 - d. quantity demanded causes price to decrease.
10. Which of the following statements about the price elasticity of demand is correct?
- a. The price elasticity of demand for a good measures the willingness of buyers of the good to buy less of the good as its price increases.
 - b. Price elasticity of demand reflects the many economic, psychological, and social forces that shape consumer tastes.
 - c. Other things equal, if good x has close substitutes and good y does not have close substitutes, then the demand for good x will be more elastic than the demand for good y .
 - d. All of the above are correct.
11. Suppose the government has imposed a price ceiling on laptop computers. Which of the following events could transform the price ceiling from one that is not binding into one that is binding?
- a. Improvements in production technology reduce the costs of producing laptop computers.
 - b. The number of firms selling laptop computers decreases.
 - c. Consumers' income decreases, and laptop computers are a normal good.
 - d. The number of consumers buying laptop computers decreases.
12. On a graph, consumer surplus is represented by the area

國立交通大學 104 學年度碩士班考試入學試題

科目：經濟學(5152)

考試日期：104 年 2 月 6 日 第 3 節

系所班別：科技管理研究所

組別：科管所乙組

第 3 頁，共 4 頁

【可使用計算機】*作答前請先核對試題、答案卷(試卷)與准考證之所組別與考科是否相符！！

- a. between the demand and supply curves.
 - b. below the demand curve and above price.
 - c. below the price and above the supply curve.
 - d. below the demand curve and to the right of equilibrium price.
13. To fully understand how taxes affect economic well-being, we must compare the
- a. consumer surplus to the producer surplus.
 - b. price paid by buyers to the price received by sellers.
 - c. reduced welfare of buyers and sellers to the revenue raised by the government.
 - d. consumer surplus to the deadweight loss.
14. If a country allows trade and, for a certain good, the domestic price without trade is lower than the world price,
- a. the country will be an exporter of the good.
 - b. the country will be an importer of the good.
 - c. the country will be neither an exporter nor an importer of the good.
 - d. Additional information is needed about demand to determine whether the country will be an exporter of the good, an importer of the good, or neither.
15. If an aluminum manufacturer does *not* bear the entire cost of the smoke it emits, it will
- a. emit a lower level of smoke than is socially efficient.
 - b. emit a higher level of smoke than is socially efficient.
 - c. emit an acceptable level of smoke.
 - d. not emit any smoke in an attempt to avoid paying the entire cost.
16. When a good is rival in consumption,
- a. one person's use of the good diminishes another person's ability to use it.
 - b. people can be prevented from using the good.
 - c. an unlimited number of people can use the good at the same time.
 - d. everyone will be excluded from obtaining the good.
17. A lighthouse is typically considered to be a public good because
- a. the owner of the lighthouse is able to exclude beneficiaries from enjoying the lighthouse.
 - b. there is rarely another lighthouse nearby to provide competition.
 - c. a nearby port authority cannot avoid paying fees to the lighthouse owner.
 - d. all passing ships are able to enjoy the benefits of the lighthouse without paying.
18. Which of the following statements is correct?
- a. National defense and health care are the two largest spending categories for the central government.
 - b. Welfare programs and highways are the two largest spending categories for local governments.
 - c. Sales taxes and property taxes are the two most important revenue sources for local governments.
 - d. Corporate income taxes are the largest source of revenue for the central government.
19. Economists normally assume that the goal of a firm is to earn
- (i) profits as large as possible, even if it means reducing output.
 - (ii) profits as large as possible, even if it means incurring a higher total cost.
 - (iii) revenues as large as possible, even if it reduces profits.
- a. (i) and (ii) only

國立交通大學 104 學年度碩士班考試入學試題

科目：經濟學(5152)

考試日期：104 年 2 月 6 日 第 3 節

系所班別：科技管理研究所

組別：科管所乙組

第 4 頁, 共 4 頁

【可使用計算機】*作答前請先核對試題、答案卷(試卷)與准考證之所組別與考科是否相符!!

- b. (i) and (iii) only
 - c. (ii) and (iii) only
 - d. (i), (ii), and (iii)
20. Which of the following statements regarding a competitive market is *not* correct?
- a. There are many buyers and many sellers in the market.
 - b. Because of firm location or product differences, some firms can charge a higher price than other firms and still maintain their sales volume.
 - c. Price and average revenue are equal.
 - d. Price and marginal revenue are equal.
21. Winnie is the best eye surgeon in town, and she earns \$350,000 a year. Susan is an average eye surgeon in town, and she earns \$100,000 a year. Winnie's skills as a surgeon
- a. are valued more by the market relative to Susan's and that explains why her income is higher than Susan's.
 - b. are valued less by the market relative to Susan's and that explains why her income is higher than Susan's.
 - c. are valued less by the market relative to Susan's and that explains why her income is lower than Susan's.
 - d. are more expensive because she receives a compensating differential.
22. Which of the following is *not* an example of moral hazard?
- a. a person with car insurance drives recklessly
 - b. a pet-sitter being paid to walk a dog for one hour per day only walks the dog for 20 minutes per day
 - c. a thief steals a car
 - d. All of the above are examples of moral hazard.
23. Consider a small economy in which consumers buy only two goods: apples and pears. In order to compute the consumer price index for this economy for two or more consecutive years, we assume that
- a. the number of apples bought by the typical consumer is equal to the number of pears bought by the typical consumer in each year.
 - b. neither the number of apples nor the number of pears bought by the typical consumer changes from year to year.
 - c. the percentage change in the price of apples is equal to the percentage change in the price of pears from year to year.
 - d. neither the price of apples nor the price of pears changes from year to year.
24. When the money market is drawn with the value of money on the vertical axis, if the price level is above the equilibrium level, there is an
- a. excess demand for money, so the price level will rise.
 - b. excess demand for money, so the price level will fall.
 - c. excess supply of money, so the price level will rise.
 - d. excess supply of money, so the price level will fall.