

## Midterm Exam

1. For markets to work well, there must be
  - (a) market power.
  - (b) a central planner.
  - (c) **property rights.**
  - (d) abundant, not scarce, resources.
  
2. An example of a perfectly competitive market would be the market for
  - (a) electricity.
  - (b) **soybeans.**
  - (c) coffee shops.
  - (d) restaurants.
  
3. Which of the following is not a function of prices in a market system?
  - (a) Prices have the crucial job of balancing supply and demand.
  - (b) Prices send signals to buyers and sellers to help them make rational economic decisions.
  - (c) Prices coordinate economic activity.
  - (d) **Prices ensure an equal distribution of goods and services among consumers.**
  
4. Which of the following is NOT an example of externality?
  - (a) lung cancer caused by second-hand exposure to cigarette smoke
  - (b) pollution from a factory on the health of people in the vicinity of the factory.
  - (c) **increase in health care costs on the health of individuals in society.**
  - (d) traffic accidents caused by alcohol consumption

5. The terms equality and efficiency are similar in that they both refer to benefits to society. However they are different in that
- (a) **equality refers to uniform distribution of those benefits and efficiency refers to maximizing benefits from scarce resources.**
  - (b) equality refers to maximizing benefits from scarce resources and efficiency refers to uniform distribution of those benefits.
  - (c) equality refers to everyone facing identical tradeoffs and efficiency refers to the opportunity cost of the benefits.
  - (d) equality refers to the opportunity cost of the benefits and efficiency refers to everyone facing identical tradeoffs.
6. Bill is restoring a car and has already spent \$4000 on the restoration. He expects to be able to sell the car for \$6200. Bill discovers that he needs to do an additional \$2400 of work to make the car worth \$6200 to potential buyers. He could also sell the car now, without completing the additional work, for \$3800. What should he do?
- (a) He should sell the car now for \$3800.
  - (b) He should keep the car since it wouldn't be rational to spend \$6400 restoring a car and then sell it for only \$6200.
  - (c) He should complete the additional work and sell the car for \$6200.
  - (d) **It does not matter if Bill sells the car now or completes the work and then sells it at the higher price because the outcome will be the same either way.**
7. Shane receives \$100 as a birthday gift. In deciding how to spend the money, he has three choices: A, B, C. Each costs \$100. Shane values the three choices in the following order:  $C > B > A$ . In this case, what is Shane's opportunity cost of choosing B?
- (a) the value of A
  - (b) the value of  $A + 100$
  - (c) the value of  $A - 100$
  - (d) **the value of C**
  - (e) the value of  $C + 100$
  - (f) the value of  $C - 100$

8. You are taking this exam. You hate it. The enjoyment value of this exam to you is  $-100$ <sup>1</sup>. You are thinking: “I really wish I could use this time to sleep or go to eat at the school cafeteria.” Suppose, then, that you could re-make your choice for this morning. You have the following options: you could sleep, which will bring you an enjoyment value of 200. Or you could choose to eat at the school cafeteria, but because the school cafeteria is really bad, you would only have an enjoyment value of 10, but have to pay 50 for your meal. Finally, if you do not take the exam, you would fail the course, which means you will have to *liuji*<sup>2</sup>, which will bring unhappiness, humiliation, and financial cost that sum up to 300. Given this information, which option should you have chosen?
- (a) take the exam
  - (b) sleep
  - (c) eat at the school cafeteria
  - (d) **indifferent between taking the exam and sleeping**
9. In the short run, an increase in the money supply is likely to lead to
- (a) lower unemployment and lower inflation.
  - (b) **lower unemployment and higher inflation.**
  - (c) higher unemployment and lower inflation.
  - (d) higher unemployment and higher inflation.
10. Suppose the Federal Reserve<sup>3</sup> announces that it will lower interest rates, which will increase money supply in the economy. This is likely because
- (a) The Fed is worried about inflation.
  - (b) **The Fed is worried about unemployment.**
  - (c) The Fed is hoping to reduce the demand for goods and services.
  - (d) The Fed is worried that the economy is growing too quickly.

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<sup>1</sup>i.e. you pay a happiness cost of 100 to take this exam

<sup>2</sup>you will have to re-take the course next year

<sup>3</sup>The Federal Reserve (or, “the Fed”) is the U.S. central bank

11. Suppose Spencer and Kate are the only two demanders of lemonade. Each month, Spencer buys six glasses of lemonade when the price is \$1.00 per glass, and he buys four glasses when the price is \$1.50 per glass. Each month, Kate buys four glasses of lemonade when the price is \$1.00 per glass, and she buys two glasses when the price is \$1.50 per glass. Which of the following points is on the market demand curve?
- (a) (quantity demanded = 2, price = \$1.50)
  - (b) (quantity demanded = 4, price = \$2.50)
  - (c) **(quantity demanded = 10, price = \$1.00)**
  - (d) (quantity demanded = 16, price = \$2.50)
12. The term price takers refers to buyers and sellers in
- (a) **perfectly competitive markets.**
  - (b) monopolistic markets.
  - (c) markets that are regulated by the government.
  - (d) markets in which buyers cannot buy all they want and/or sellers cannot sell all they want.
13. Which of the following does not affect an individual's demand curve?
- (a) expectation
  - (b) income
  - (c) prices of related goods
  - (d) **the number of buyers**
14. Today's demand curve for gasoline could shift in response to a change in
- (a) today's price of gasoline.
  - (b) **the expected future price of gasoline.**
  - (c) the number of sellers of gasoline.
  - (d) All of the above.

15. An increase in government scholarships for college students may
- (a) encourage more high school graduates to go to college
  - (b) raise the tuition of private colleges
  - (c) increase the demand for college professors
  - (d) **all of the above**
16. Good X and good Y are substitutes. If the price of good Y increases, then the price of X is likely going to
- (a) **increase**
  - (b) decrease
  - (c) stay the same
  - (d) (a)–(c) are all possible
17. A likely example of substitute goods for most people would be
- (a) highschool education and university education.
  - (b) tennis balls and tennis rackets.
  - (c) televisions and refrigerators.
  - (d) **cars and bicycles.**
18. The supply of Economics courses at WISE is
- (a) elastic in the short run, elastic in the long run
  - (b) elastic in the short run, inelastic in the long run
  - (c) **inelastic in the short run, elastic in the long run**
  - (d) inelastic in the short run, inelastic in the long run
19. Recent forest fires in Sichuan Yibin are expected to cause the price of lumber to rise in the next six months. As a result, we can expect the supply of lumber to
- (a) fall in six months but not now.
  - (b) increase in six months when the price goes up.
  - (c) **fall now.**
  - (d) increase now to meet as much demand as possible.

20. Which of the following might cause the demand curve for an inferior good to shift to the left?
- (a) a decrease in income
  - (b) an increase in the price of a substitute
  - (c) **an increase in the price of a complement**
  - (d) None of the above
21. Suppose marijuana and heroin are substitutes and suppose marijuana can be a “gateway drug” in the sense that consumption of marijuana may lead a person to go on to consume harder drugs such as heroin. Then the legalization of marijuana can
- (a) increase the supply of marijuana and increase the demand for heroin
  - (b) increase the supply of marijuana and decrease the demand for heroin
  - (c) increase the supply of marijuana but does not affect the demand for heroin
  - (d) **Both (a) and (b) are possible**
22. Suppose an increase in the price of rubber coincides with an advance in the technology of tire production. As a result of these two events, the demand for tires
- (a) increases
  - (b) decreases
  - (c) **stays the same**
  - (d) impossible to tell
23. If a group of individuals exhibit Giffen behavior with respect to a certain good X (that is, the more expensive X is, the more they consume X), then we should expect their income elasticity of demand for X to be \_\_\_\_\_. That is, the more income they earn, the \_\_\_\_\_ they will purchase X.
- (a) positive; the more
  - (b) positive; the less
  - (c) negative; the more
  - (d) **negative; the less**

24. In Jensen and Miller's study, the reason that Giffen behavior is not significantly observed among the households in Gansu may be that
- (a) **The households were too poor**
  - (b) The households were not poor enough
  - (c) The households were too small
  - (d) The households relied almost exclusively on rice to sustain their livelihood
25. What would happen to the equilibrium price and quantity of coffee if the wages of coffee-bean pickers fell and the price of tea fell?
- (a) **Price would fall, and the effect on quantity would be ambiguous.**
  - (b) Price would rise, and the effect on quantity would be ambiguous.
  - (c) Quantity would fall, and the effect on price would be ambiguous.
  - (d) Quantity would rise, and the effect on price would be ambiguous.
26. Which of the following events would unambiguously cause a decrease in the equilibrium price of cotton shirts?
- (a) an increase in the price of wool shirts and a decrease in the price of raw cotton
  - (b) **a decrease in the price of wool shirts and a decrease in the price of raw cotton**
  - (c) an increase in the price of wool shirts and an increase in the price of raw cotton
  - (d) a decrease in the price of wool shirts and an increase in the price of raw cotton
27. Beef is a normal good. You observe that both the equilibrium price and quantity of beef have fallen over time. Which of the following explanations would be most consistent with this observation?
- (a) Consumers have experienced an increase in income, and beef-production technology has improved.
  - (b) The price of chicken has risen, and the price of steak sauce has fallen.
  - (c) **New medical evidence has been released that indicates a negative correlation between a person's beef consumption and life expectancy.**
  - (d) The demand curve for beef must be positively sloped.

28. Xiamen university restricts the pay for research assistants to a maximum of 1000 per month. This policy
- (a) benefits all professors
  - (b) creates a shortage of research assistants
  - (c) increase the demand for teaching assistants
  - (d) **the effect depends on whether, in a world without such a policy, the market equilibrium price of research assistants is above or below 1000/month**
29. Which of the following is likely to have the most price elastic demand?
- (a) ice cream
  - (b) frozen yogurt
  - (c) vanilla ice cream
  - (d) **Häagen-Dazs vanilla bean ice cream**
30. For a particular good, a 5 percent increase in price causes a 15 percent decrease in quantity demanded. Which of the following statements is most likely applicable to this good?
- (a) **There are many substitutes for this good.**
  - (b) The good is a necessity.
  - (c) The market for the good is broadly defined.
  - (d) The relevant time horizon is short.
31. Suppose the market for oranges is perfectly competitive. The current market price for oranges is \$10/kg. The elasticity of demand at this price is estimated to be 0.7. An orange seller is thinking of raising his price to \$11/kg. If he does, his revenue would
- (a) increase
  - (b) decrease
  - (c) stay the same
  - (d) **drop to zero**



32. When we move downward along a linear, downward-sloping demand curve, the price elasticity of demand
- (a) first increase then decrease
  - (b) first decrease then increase
  - (c) always increase
  - (d) **always decrease**
33. If the price elasticity of demand for a good is 0.8, then, assuming the demand curve doesn't shift, which of the following events is consistent with a 4 percent decrease in the quantity of the good demanded?
- (a) a 0.2 percent increase in the price of the good
  - (b) a 3.2 percent increase in the price of the good
  - (c) a 4.8 percent increase in the price of the good
  - (d) **a 5 percent increase in the price of the good**
34. When the price of a pair of Levy jeans is \$50, the quantity demanded is 500. When the price of Levy jeans is \$70, the quantity demanded is 400 units. Based on this information, using the midpoint method, the price elasticity of demand for Levy jeans is
- (a) 1.50
  - (b) 1.33
  - (c) 0.67
  - (d) **cannot be determined**
35. Consider luxury weekend hotel packages in Las Vegas. When the price is \$250, the quantity demanded is 2,000 packages per week. When the price is \$280, the quantity demanded is 1,700 packages per week. Suppose demand does not shift during this time, using the midpoint method, the price elasticity of demand is about
- (a) **1.43, and an increase in the price will cause hotels' total revenue to decrease.**
  - (b) 1.43, and an increase in the price will cause hotels' total revenue to increase.
  - (c) 0.70, and an increase in the price will cause hotels' total revenue to decrease.
  - (d) 0.70, and an increase in the price will cause hotels' total revenue to increase.

36. A government tax aimed at reducing smoking changed the price of a pack of cigarettes from \$2 to \$6. Suppose the price elasticity of demand for cigarettes is about 0.4 within this range and assume that the tax policy had no effect on demand. According to the midpoint method, the government policy should have reduced smoking by
- (a) 30%
  - (b) **40%**
  - (c) 80%
  - (d) 250%.
37. Last year, the price of wheat was \$2 per bushel and farmers sold 10 million bushels. This year, the price of wheat has risen to \$3 per bushel. Suppose farmers' supply has not shifted during this time and suppose the demand for wheat is elastic in this price range, which of the following statements is most likely to be true?
- (a) Farmers sold 8 million bushels this year and their total revenue has increased
  - (b) Farmers sold 8 million bushels this year and their total revenue has decreased
  - (c) **Farmers sold 12 million bushels this year and their total revenue has increased**
  - (d) Farmers sold 8 million bushels this year and their total revenue has decreased
38. How does total revenue change as one moves from left to right along an upward sloping supply curve?
- (a) **It always increases.**
  - (b) It always decreases.
  - (c) It first increases, then decreases.
  - (d) It stays the same.
39. Suppose a supply curve is linear, upward-sloping, and has a negative intercept (i.e. sellers will sell a positive amount of good at price = 0), then the price elasticity of supply is
- (a)  $>1$
  - (b)  $=1$
  - (c)  **$>0$  and  $<1$**
  - (d)  $<0$

40. For which of the following goods is the income elasticity of demand likely highest?
- (a) water
  - (b) **diamonds**
  - (c) hamburgers
  - (d) housing
41. For which pairs of goods is the cross-price elasticity most likely to be positive?
- (a) milk and cereal
  - (b) bed and mattress
  - (c) **pens and pencils**
  - (d) textbooks and bricks
42. Last year, Carolyn bought 6 pairs of earrings when her income was \$40,000. This year, her income is \$52,000, and she purchased 7 pairs of earrings. Suppose all other factors have been held constant, then using the midpoint method, it follows that Carolyn's income elasticity of demand is about
- (a) 0.59, and Carolyn regards earrings as an inferior good.
  - (b) **0.59, and Carolyn regards earrings as a normal good.**
  - (c) 1.7, and Carolyn regards earrings as an inferior good.
  - (d) 1.7, and Carolyn regards earrings as a normal good.
43. Sandra purchases 5 pounds of coffee and 10 gallons of milk per month when the price of coffee is \$10 per pound. She purchases 6 pounds of coffee and 12 gallons of milk per month when the price of coffee is \$8 per pound. Suppose this pattern represents Sandra's demand (rather than a co-incidence), then, according to the midpoint method, Sandra's cross-price elasticity of demand for coffee and milk in this price range is
- (a) 0.82, and they are substitutes.
  - (b) **-0.82, and they are complements.**
  - (c) 1.22, and they are substitutes.
  - (d) -1.22, and they are complements.

44. Suppose researchers at the University of Wisconsin discover a new vitamin that increases the milk production of dairy cows. If the demand for milk is relatively inelastic, the discovery will
- (a) raise both price and total revenues.
  - (b) **lower both price and total revenues.**
  - (c) raise price and lower total revenues.
  - (d) lower price and raise total revenues.
45. A drug interdiction program that successfully reduces the supply of illegal drugs in the United States will likely
- (a) lower the price, increase the quantity consumed, and increase the total revenue of drug sellers.
  - (b) lower the price, reduce the quantity consumed, and decrease the total revenue of drug sellers.
  - (c) raise the price, increase the quantity consumed, and increase the total revenue of drug sellers.
  - (d) **raise the price, reduce the quantity consumed, and increase the total revenue of drug sellers.**

1. Firms in which of the following markets tend to spend the most on advertising?
  - (a) Perfectly competitive markets
  - (b) Monopolistically competitive markets
  - (c) **Oligopoly markets**
  - (d) Monopoly markets
  
2. There are 2 points on a linear demand curve. The price elasticity of demand is equal to 2 at the first point and 5 at the second point. Let  $Q_1$  and  $Q_2$  be the quantity demanded at these two points. Then  $Q_1/Q_2$  is
  - (a) 0.4
  - (b) 0.5
  - (c) **2**
  - (d) 2.5
  
3. If the total revenues at 2 points on a linear demand curve are equal. Which of the following statements is correct?
  - (a) Let  $Q_1$  and  $Q_2$  be the quantity demanded at these two points. Let  $A$  be the point on the demand curve at which price elasticity is equal to 1. Let  $Q_A$  be the quantity demanded at  $A$ . Then  $Q_A = \frac{1}{2}(Q_1 + Q_2)$
  - (b) Demand is price elastic at one point and price inelastic at the other point.
  - (c) Let  $\epsilon_1$  and  $\epsilon_2$  be the price elasticity of demand at these two points. Then  $\epsilon_1\epsilon_2 = 1$ .
  - (d) **All of the above are correct.**
  
4. You are a freshman at XMU. You look forward to living happily for the next 4 years in a dorm on campus with no washing machines. You have two choices: 1. You can wash your clothes by hand for the next 4 years. This will cost you 15 minutes per day. Of course who enjoys washing clothes? So you pay an enjoyment cost equivalent to \$2/hour in doing so. 2. You can spend \$300 now to buy a washing machine and then use the 15 minutes per day on studying. The washing machine has no resale value after 4 years. Suppose every hour of study eventually will bring you \$4 in future benefits. But of course who enjoys studying<sup>1</sup>? So you pay an enjoyment cost equivalent to \$1/hour while studying. Suppose you are a rational person, Here come the questions, what is the opportunity cost of choosing each option?
  - (a) Option 1:  $4 \times 365 \times (4 - 1)/4 - 300$ ; Option 2:  $-4 \times 365 \times 2/4$

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<sup>1</sup>Your instructor

- (b) **Option 1:**  $4 \times 365 \times (2 + 4 - 1) / 4 - 300$ ; **Option 2:**  $300 + 4 \times 365 \times (1 - 2) / 4$
- (c) Option 1:  $-4 \times 365 \times 2 / 4$ ; Option 2:  $4 \times 365 \times (4 - 1) / 4 - 300$
- (d) Option 1:  $4 \times 365 \times (4 - 1) / 4 - 300$ ; Option 2:  $300 - 4 \times 365 \times 2 / 4$
5. A monopoly seller controls the markets of two goods, A and B. A's demand curve follows the equation:  $P_A = 1000 - 6Q_A$ ; B's demand curve follows the equation:  $P_B = 1600 - 4Q_B$ . At the current price, the quantity demanded of A and B are  $Q_A = 100$  and  $Q_B = 250$ . If the seller wants to increase its revenue, it may
- (a) decrease the price of A and increase the price of B
- (b) increase the price of A and decrease the price of B
- (c) decrease both of their prices
- (d) **increase both of their prices**