Econ 251
Microeconomics
Spring 2017
Exam 1 Pink

	Section	Instructor	Days	Time
_____	0001	Blanchard, Kelly	Tuesday / Thursday	9:00 – 10:15
_____	0002	Blanchard, Kelly	Tuesday / Thursday	12:00 – 1:15
_____	0003	Blanchard, Kelly	Tuesday / Thursday	1:30 – 2:45
_____	2222	Blanchard, Kelly	HONORS	

Please place an "X" next to your section number above and bubble it in on the scantron as indicated.

1. Which of the following is an example of the scarce resource of capital?
    a. Oil
    b. Cash
    c. A $50 government savings bond
    d. A computer

2. Samantha is making plans for the weekend. She could drive to Chicago with friends and spend $200 on gas, lodging, and food or she could stay on campus and hang out with her friends. Any expenses for food and lodging at Purdue were already paid to Purdue at the beginning of the semester and are nonrefundable. Based on this information, which of the following best describes the opportunity cost to Samantha of going to Chicago?
    a. $200
    b. $200 plus the value of hanging out with her friends on campus
    c. The value of going to Chicago
    d. The price of lodging and food Samantha paid Purdue at the beginning of the semester

3. Which of the following best describes the sunk cost in the question above?
    a. The $200 Samantha would pay for gas, lodging, and food in Chicago
    b. The value to Samantha of hanging out with her friends on campus
    c. The price of lodging and food Samantha already paid Purdue
    d. All of the above are sunk costs

4. Which of the following best defines marginal cost?
    a. The opportunity cost of 1 additional unit
    b. The value of 1 additional unit
    c. The highest price a consumer would pay to purchase 1 additional unit
    d. The highest price a seller would take to sell 1 additional unit

Hailey and Colin are baking treats for a school bake sale. Hailey can bake 4 dozen brownies or 2 dozen cupcakes in an hour. Colin can bake 5 dozen brownies or 3 dozen cupcakes in an hour. Use this information to answer the following 4 questions.

5. If dozens of cupcakes are measured on the x axis, what is the slope of Hailey's production possibility frontier?
    a. -2
    b. -1/2
    c. -2/3
    d. -3/2

6. If Hailey and Colin specialize so that each is producing the task for which each has comparative advantage, then Hailey will produce _____, and Colin will produce _____.
    a. Cupcakes; brownies
    b. Brownies; cupcakes
    c. Brownies; brownies
    d. Cupcakes; cupcakes

7. When Hailey and Colin work together to produce 2 dozen brownies, what's the maximum number of cupcakes they could also produce?
    a. 2 dozen
    b. 3 dozen
    c. 4 dozen
    d. 5 dozen

8. If Hailey takes a baking class that doubles the number of brownies and cupcakes she can produce in an hour, which of the following occurs?
    a. Colin's marginal cost of producing cupcakes falls.
    b. Hailey's individual PPF shifts to the right.
    c. Colin's individual PPF shifts to the left.
    d. All of the above.

The table below provides the maximum combinations of computers and shoes that an economy can produce. Use this information to answer the following 2 questions.

Computers	0	1	2	3	4
Shoes (pairs)	600	500	375	200	0

9. What is the marginal cost of producing the third computer?
    a. 200 pairs of shoes
    b. 175 pairs of shoes
    c. 400 pairs of shoes
    d. 25 pairs of shoes

10. If the number of computers is measured on the x axis, which of the following would best describe the production possibility frontier (PPF)?
    a. The PPF is linear
    b. The PPF gets flatter as the number of computers produced increases
    c. The PPF gets steeper as the number of computers produced increases
    d. The PPF has a positive slope

11. Production efficiency implies which of the following?
    a. Resources are used where they are most highly valued
    b. Resources are not scarce
    c. A market has reached its equilibrium point
    d. A combination of goods is being produced at the lowest possible cost

12. If Silver Dipper raises the price of a one-scoop ice cream cones from $2.45 to $2.75 each, which of the following would you expect to see?
    a. The supply of one-scoop ice cream cones supplied at Silver Dipper will decrease.
    b. The demand for one-scoop ice cream cones at Silver Dipper will decrease.
    c. The demand for one-scoop ice cream cones at Dairy Queen will decrease (assuming Silver Dipper and Dairy Queen cones are substitutes in consumption)
    d. The quantity of one-scoop ice cream cones demanded at Silver Dipper will decrease.

13. Silver Dipper makes its strawberry ice cream using cream, sugar, milk, and strawberries. If the price of strawberries used to make ice cream increases, which of the following would you expect to see?
    a. An increase in the equilibrium price of Silver Dipper's strawberry ice cream
    b. A decrease in the equilibrium quantity of Silver Dipper's strawberry ice cream
    c. A decrease in the supply of Silver Dipper's strawberry ice cream.
    d. All of the above

14. Which of the following would decrease the demand for iPhone cases?
    a. A decrease in the price of iPhones (complements in consumption)
    b. A decrease in income (assuming iPhone cases are normal goods)
    c. An increase in the price of iPhone cases
    d. An increase in the supply of iPhone cases

15. At equilibrium in a market, which of the following is true?
    a. Total surplus is maximized
    b. Quantity demanded is maximized
    c. Demand is unit elastic
    d. Marginal cost is maximized

16. Corn and soybeans are substitutes in production. This implies that
    a. Corn and soybeans are grown from the same kind of seeds.
    b. Farmers can use the natural resource of land to grow either corn or soybeans.
    c. Higher soybean prices will increase the supply of corn.
    d. Corn is a natural by-product of soybean production.

17. Laptop computers and flash drives are complements in consumption, while laptop computers and desktop computers are substitutes in production. If the price of flash drives falls at the same time that the price of desktop computers falls, how will equilibrium in the market for laptop computers?
    a. Equilibrium quantity will rise, and equilibrium price will fall.
    b. Equilibrium quantity will rise, and equilibrium price will be indeterminate.
    c. Equilibrium quantity will fall, and equilibrium price will be indeterminate.
    d. Equilibrium quantity will be indeterminate, and equilibrium price will fall.

Consider the demand and supply schedules for light bulbs given in the table below. Use this information to answer the following 5 questions.

Price	Quantity demanded	Quantity supplied
1	500	260
1.50	460	280
2	420	300
2.50	380	320
3	340	340
3.50	300	360
4	260	380

18. What is the marginal benefit of the 300^{th} light bulb?
    a. $0.50
    b. $2.50
    c. $3.00
    d. $3.50

19. What quantity of light bulbs achieves allocative efficiency?
    a. 320
    b. 340
    c. 360
    d. 500

20. If demand increases by 60 light bulbs at every price, what is the new equilibrium in the market?
    a. Equilibrium price is $3, and equilibrium quantity is 400.
    b. Equilibrium price is $3.50, and equilibrium quantity is 360.
    c. Equilibrium price is $4, and equilibrium quantity is 260.
    d. Equilibrium price is $2.50, and equilibrium quantity is 380.

21. What is the price elasticity of demand when the price rises from $2 to $2.50 in the market for light bulbs? (Assume demand is at its original levels.)
    a. 9/20 = 0.45
    b. 1
    c. 1/8 = 0.125
    d. 80

22. If a price ceiling of $2.50 is imposed in the market for light bulbs, which of the following would result? (Assume demand is at its original levels.)
    a. Total surplus would rise
    b. There would be deadweight loss from producing more than the level of output that would satisfy allocative efficiency
    c. There would be a shortage of 60 light bulbs
    d. There would be a surplus of 40 light bulbs

23. At a local boutique, when the price of sandals decreases from $80 to $65, the quantity demanded increases from 150 to 200 per week. Because the lower price _____ revenue, demand must be _____ in that price range.
    a. Increases; elastic
    b. Increases; inelastic
    c. Decreases; elastic
    d. Decreases; inelastic

24. At a local boutique, when the price of sandals decreases from $80 to $65, the quantity demanded increases from 150 to 200 per week. At the same time, the quantity of tank tops demanded increases from 200 to 210. This implies which of the following?
    a. Sandals and tank tops are normal goods.
    b. Sandals and tank tops are complements in consumption.
    c. The cross-price elasticity between sandals and tank tops is 0.25.
    d. Demand for tank tops is inelastic.

25. Which of the following would increase the price elasticity of demand for sandals if the demand for sandals is a negatively-sloped line?
    a. An increase in the number of shoes that are viewed as substitutes for sandals.
    b. An increase in the price of sandals.
    c. Both of the above.
    d. None of the above.

26. If demand is inelastic in a given price range, which of the following is true?
    a. The price elasticity of demand is equal to 1.
    b. The price elasticity of demand is greater than 1.
    c. The price elasticity of demand is less than 1.
    d. The price elasticity of demand is equal to 0.

Equations for demand and supply in the market for digital cameras are given below. Use those equations to answer the following 5 questions.

$$Q^d = 3000 - 2P$$
$$Q^s = (0.5)P - 150$$

27. What is equilibrium in the market for digital cameras?
    a. Equilibrium price is $1,260, and equilibrium quantity is 480.
    b. Equilibrium price is $1,260, and equilibrium quantity is 480.
    c. Equilibrium price is $1,140, and equilibrium quantity is 720.
    d. Equilibrium price is $1,500, and equilibrium quantity is 900.

28. When the market reaches equilibrium, what is total surplus?
    a. $129,600
    b. $202,500
    c. $288,000
    d. $410,400

29. If the government imposes a tax of $20 per camera in the market, what new quantity of cameras will be traded?
    a. 450
    b. 472
    c. 567
    d. 600

30. What deadweight loss results from the $20 tax in the market?
    a. $80
    b. $2,018
    c. $2,480
    d. $3,295

31. Who bears more of the burden of the tax in this market and why?
    a. Consumers bear more of the burden of the tax because demand is more elastic than supply.
    b. Consumers bear more of the burden of the tax because demand is less elastic than supply.
    c. Producers bear more of the burden of the tax because demand is more elastic than supply.
    d. Producers bear more of the burden of the tax because demand is less elastic than supply.

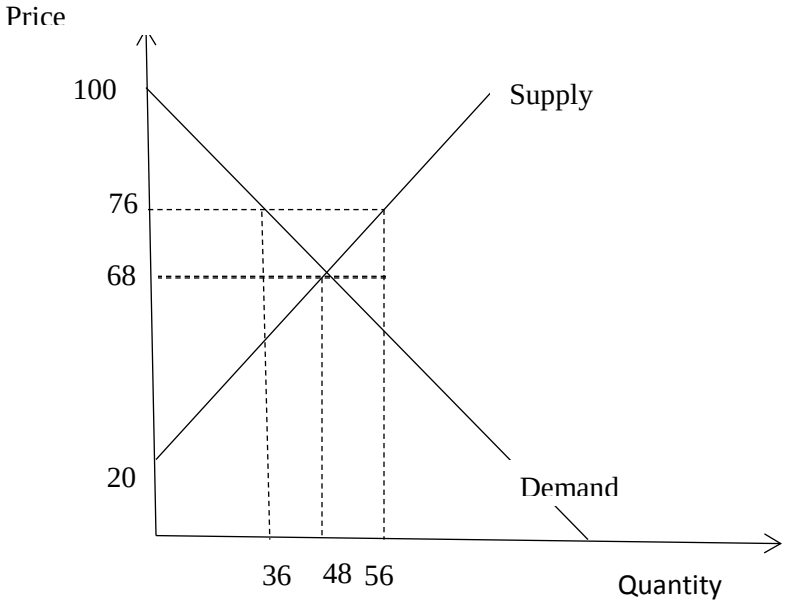
32. If demand is perfectly inelastic, which of the following is true?
    a. Consumers will bear the entire burden of a tax in the market.
    b. The price elasticity of demand is equal to 1.
    c. Demand is a horizontal line.
    d. All of the above

33. If supply is perfectly inelastic, what is the price elasticity of supply?
    a. 0
    b. 1
    c. -1
    d. Infinity

34. Which of the following results in the largest deadweight loss?
    a. A price ceiling set above the equilibrium price in a market
    b. A price floor set below the equilibrium price in a market
    c. A tax imposed in a market where supply is perfectly inelastic
    d. A quota set below the equilibrium quantity in a market

35. In the market for sugar-sweetened beverages, the equilibrium price is currently $1.50 per liter. If the price elasticity of demand for sugar-sweetened beverages is 0.8, and the price elasticity of supply for sugar-sweetened beverages is 0.4, how will a tax of $1 per liter affect the price consumers pay and the price sellers receive after the tax?
    a. The price consumers pay will rise by $1 per liter.
    b. The price consumers pay will rise, but by less than $0.50 per liter.
    c. The price sellers receive will fall by $1 per liter.
    d. The price sellers receive will fall, but by less than $0.50 per liter.

The graph below represents demand and supply in the market for pancake griddles. Use this information to answer the following 5 questions.



36. When the market reaches equilibrium, producer surplus in the market is equal to
    a. $4,608
    b. $1,152
    c. $652.80
    d. $192

37. If the government imposes a price floor of $76 in the market, which of the following results?
    a. There will be a shortage of 8 pancake griddles.
    b. There will be surplus of 8 pancake griddles.
    c. There will be a shortage of 12 pancake griddles.
    d. There will be a surplus of 20 pancake griddles.

38. If, instead of a price floor, the government imposes a price ceiling of $76 in the market, which of the following results?
    a. There will be a shortage of 8 pancake griddles.
    b. There will be a shortage of 12 pancake griddles.
    c. There will be a surplus of 20 pancake griddles.
    d. None of the above

39. At what price would demand for pancake griddles be unit elastic?
    a. $68
    b. $76
    c. $100
    d. $50

40. If demand for pancake griddles is unit elastic, what do you also know about revenue?
    a. Revenue is maximized
    b. An increase in price will increase revenue
    c. A decrease in price will increase revenue
    d. None of the above