STUDENT'S NAME:_________________________________________________

STUDENT'S IDENTIFICATION NUMBER:______________________________

DAY AND TIME YOUR SECTION MEETS:______________________________

ENTER THE NUMBER 7771666 UNDER "SPECIAL CODES" ON THE SCANTRON SHEET

BEFORE YOU BEGIN PLEASE MAKE SURE THAT YOUR EXAMINATION HAS BEEN DUPLICATED AND COLLATED CORRECTLY. THERE SHOULD BE 40 MULTIPLE CHOICE QUESTIONS. THE EXAM HAS 10 PAGES INCLUDING THIS COVER SHEET.

ANSWER ALL THE PROBLEMS ON THE SCANTRON SHEET.

BE SURE TO FILL-IN YOUR NAME (LAST NAME FIRST) AT THE TOP OF THE SCANTRON SHEET. FILL IN YOUR STUDENT IDENTIFICATION NUMBER UNDER "IDENTIFICATION NUMBER" ON THE SCANTRON SHEET.

WRITE YOUR TA'S NAME IN THE UPPER-RIGHT HAND CORNER OF YOUR SCANTRON SHEET.

University of Maryland Honor Pledge

The University is committed to Academic Integrity, and has a nationally recognized Honor Code, administered by the Student Honor Council. In an effort to affirm a community of trust, the Student Honor Council proposed and the University Senate approved Honor Pledge. The University of Maryland Honor Pledge reads:

"I pledge on my honor that I have not given or received any unauthorized assistance on this examination (or assignment)."

Please rewrite the exact wording of the pledge, followed by your signature in the space below:

Pledge:      _________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

Your Signature:_________________________________________
Multiple Choice
(Each question is worth 2.5 points. Please select THE BEST answer.)

1. If two goods are substitutes, their cross-price elasticity will be
   a. positive.
   b. negative.
   c. zero.
   d. equal to the difference between the income elasticities of demand for the two goods.

2. When the government places a tax on a product
   a. the cost of the tax in lost surplus to buyers and sellers is less than the revenue raised from the tax by the government.
   b. the cost of the tax in lost surplus to buyers and sellers is equal to the revenue raised from the tax by the government.
   c. the cost of the tax in lost surplus to buyers and sellers exceeds the revenue raised from the tax by the government.
   d. Without additional information, such as the elasticity of demand for this product, it is impossible to compare the cost of a tax in lost surplus to buyers and sellers with tax revenue.

3. Mallory decides to spend three hours working overtime rather than watching a video with her friends. She earns $8 an hour. Her opportunity cost of working is
   a. the $24 she earns working.
   b. the $24 minus the enjoyment she would have received from watching the video.
   c. the enjoyment she would have received had she watched the video.
   d. nothing, since she would have received less than $24 of enjoyment from the video.

4. A drought in California destroys many red grapes (an input when making red wine). As a result of the drought, the consumer surplus in the market for red grapes
   a. increases, and the consumer surplus in the market for red wine increases.
   b. increases, and the consumer surplus in the market for red wine decreases.
   c. decreases, and the consumer surplus in the market for red wine increases.
   d. decreases, and the consumer surplus in the market for red wine decreases.

5. 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 is correct.
6. Which of the following is correct?
   a. A tax burden falls more heavily on the side of the market that is more elastic.
   b. A tax burden falls more heavily on the side of the market that is less elastic.
   c. A tax burden falls more heavily on the side of the market that is closer to unit elastic.
   d. A tax burden is distributed independently of the relative elasticities of supply and demand.

7. In the housing market, rent control causes
   a. quantity supplied to fall and quantity demanded to fall.
   b. quantity supplied to fall and quantity demanded to rise.
   c. quantity supplied to rise and quantity demanded to fall.
   d. quantity supplied to rise and quantity demanded to rise.

8. Refer to Table 1. What is the income elasticity of demand for apples, using the midpoint method?
   a. .44
   b. .50
   c. .80
   d. 1.00

9. Refer to Table 1. Bananas are
   a. inferior goods
   b. normal goods
   c. luxury goods
   d. perfectly elastic goods

10. Kristi and Rebecca sell lemonade on the corner. Including all opportunity costs, it costs them 7 cents to make each cup. On a certain day, they sell 40 cups, and their producer surplus for that day amounts to $15.20. Kristi and Rebecca sold each cup for
    a. 31 cents.
    b. 38 cents.
    c. 45 cents.
    d. 55 cents.
11. If the quantity supplied responds only slightly to changes in price, then ____.
   a. supply is said to be elastic
   b. supply is said to be inelastic
   c. an increase in price will not shift the supply curve very much
   d. even a large decrease in demand will change the equilibrium price only slightly

12. Suppose the government has imposed a price ceiling on cellular phones. Which of the following events could transform the price ceiling from one that is binding to one that is not binding?
   a. Cellular phones become more popular
   b. Traditional land line phones become more expensive
   c. The components used to produce cellular phones become more expensive
   d. A technological advance makes cellular phone production less expensive

13. If candy and popcorn are substitutes, then an increase in the price of candy will ____.
   a. shift the demand curve for candy right
   b. shift the demand curve for candy left
   c. shift the demand curve for popcorn right
   d. shift the demand curve for popcorn left

14. The term *price takers* refers to buyers and sellers in
   a. perfectly competitive markets.
   b. monopolies.
   c. markets that are regulated by government.
   d. markets in which buyers cannot buy all they want and/or sellers cannot sell all they want.

15. If a consumer places a value of $15 on a particular good and if the price of the good is $17, then the
   a. consumer has consumer surplus of $2 if he or she buys the good.
   b. consumer does not purchase the good.
   c. market is not a competitive market.
   d. price of the good will fall due to market forces.

16. Suppose that used textbooks become more popular among students and, at the same time, the price of paper an input to *new* textbooks, increases. What would happen in the market for *new* textbooks?
   a. Equilibrium quantity and price would decrease.
   b. Equilibrium quantity would decrease, but equilibrium price would increase.
   c. Equilibrium quantity would increase, but equilibrium price would decrease.
   d. Equilibrium quantity would decrease, but the impact on equilibrium price would be ambiguous.
17. Suppose there is an early freeze in California that reduces the size of the lemon crop. What happens to consumer surplus in the market for lemons?
   a. It increases.
   b. It decreases.
   c. It is not affected by this change in market forces.
   d. We would have to know whether the demand for lemons is elastic or inelastic to make this determination.

**Scenario 1**
Four friends walk into an otherwise empty ice cream shop. To purchase an ice cream cone, Judy, Joanna, Jamie, and Jane are willing to pay a maximum of $3.00, $4.00, $4.50, and $5.00, respectively.

18. In Scenario 1, the total demand for cones is ___ when the price is $4.25 per cone.
   a. 1 cones
   b. 2 cones
   c. 3 cones
   d. 4 cones

19. In Scenario 1, the total consumer surplus is ___ when the price is $3.50 per cone.
   a. $0
   b. $1.50
   c. $2.50
   d. $3.00
   e. $4.00

20. Which of the following would not shift the demand curve for iPods?
   a. An increase in the price of iPods
   b. A decrease in the cost of music download, a complement for iPods
   c. A decrease in the price of mp3 players, a substitute for iPods
   d. A fad that makes iPods more popular among high school students

21. A minimum wage that is set below a market's equilibrium wage will result in
   a. an excess demand for labor, that is, unemployment.
   b. an excess demand for labor, that is, a shortage of workers.
   c. an excess supply of labor, that is, unemployment.
   d. None of the above is correct.
22. When the price of a concert ticket is $50, the quantity demanded for the ticket is 500 tickets. When the price of the concert ticket rises to $70, the quantity demanded of the ticket falls to 400 tickets. Using the midpoint method, the price elasticity of demand for the concert ticket is ___ and an increase in price will result in ___ in total revenue for tickets.
   a. 1.50; an increase.
   b. 1.50; a decrease
   c. 0.67; an increase
   d. 0.67; a decrease

23. Compared to the long run, in the market for oil, the short run, ___.
   a. demand and supply are both elastic
   b. demand and supply are both inelastic
   c. demand is elastic and supply is inelastic
   d. demand is inelastic and supply is elastic

24. Price ceiling and price floors that are binding
   a. are desirable because they make markets more efficient and more fair.
   b. cause surpluses and shortages to persist since price cannot adjust to the market equilibrium price.
   c. can have the effect of restoring a market to equilibrium.
   d. are imposed because they can make the poor in the economy better off without causing adverse effects.

![Figure 1](image-url)
25. Refer to Figure 1. An increase in price from $30 to $35 would
   a. increase total revenue by $250
   b. decrease total revenue by $250.
   c. increase total revenue by $500.
   d. decrease total revenue by $500.

26. If the government removes a binding price ceiling from a market, then the price paid by buyers will
   a. increase and the quantity sold in the market will increase.
   b. increase and the quantity sold in the market will decrease.
   c. decrease and the quantity sold in the market will increase.
   d. decrease and the quantity sold in the market will decrease.

27. Watching movies on Netflix or going to the movies are substitute activities. If we observe the quantity of tickets sold by Bethesda Row Cinema going down despite no change in ticket prices, what could be causing such a pattern?
   a. An increase in the costs of shipping movies through mail service.
   b. A decrease in the rent paid by Bethesda Row Cinema.
   c. A decrease in the costs of shipping movies through mail service.
   d. A solar eclipse.

28. Barb's Bakery earned $200 in total revenue last month when it sold 100 loaves of bread. This month it earned $300 in total revenue when it sold 60 loaves of bread. The price elasticity of demand for Barb's bread is
   a. 0.27.
   b. 0.58.
   c. 1.25.
   d. 1.71.

29. If the supply of land is fixed, the burden of a tax on land falls
   a. partly on landowners and partly on users of land.
   b. entirely on the renters or users of land.
   c. entirely on workers.
   d. entirely on landowners.
30. Refer to Figure 2. Which of the following is correct?
   a. the equilibrium price in this market before the tax was $3.
   b. the amount of the tax is $3.
   c. buyers bear the full burden of the taxes.
   d. none of the above.

31. Refer to Figure 2. Which of the following is not correct?
   a. The burden of the tax to the buyers is $3.
   b. The burden of the tax to the sellers is $3.
   c. The buyers will pay $7 for the product after the tax is imposed.
   d. The sellers will receive $3 for the product after the tax is imposed.

32. If a five percent rise in the price of an object sold in a perfectly competitive market leads to a seven percent rise in quantity supplied we say that
   a. Supply is inelastic.
   b. Supply is unit elastic.
   c. Supply is elastic.
   d. Demand is elastic.
33. Refer to Figure 3. At the equilibrium price, consumer surplus is ____.
   a. $480
   b. $640
   c. $1,120
   d. $1,280

34. Refer to Figure 3. If the price decreases from $22 to $16 due to a shift in the supply curve, consumer surplus increases by ____.
   a. $120
   b. $360
   c. $480
   d. $600

35. As a tax increases,
   a. the deadweight loss always decreases.
   b. the tax revenue always increases.
   c. the tax revenue might increase or decrease.
   d. the deadweight loss might increase or decrease.

36. Assuming that neither demand nor supply are perfectly inelastic nor perfectly elastic, the imposition of a tax that must be paid by the seller
   a. Leaves consumer surplus unchanged.
   b. Increases consumer surplus.
   c. Increases producer surplus.
   d. Decreases consumer surplus.
37. Refer to Figure 4. If the government were to eliminate the sales tax, the producer surplus would equal the area ____.
   a. A+B+E
   b. C+D+F
   c. A+B+C+D
   d. E+F

38. Refer to Figure 4. How much revenue does the government collect from this sales tax on haircuts?
   a. B+C
   b. E+F
   c. A+B+C+D
   d. B+C+E+F

39. Refer to Figure 4. What is the deadweight loss to taxation?
   a. B+C
   b. E+F
   c. A+B+C+D
   d. B+C+E+F

40. If a price ceiling is NOT binding, then
   a. The ceiling must be above the equilibrium price.
   b. The ceiling must be below the equilibrium price.
   c. There must be excess supply with the policy.
   d. There must be excess demand with the policy.