Economics 101   PRINT NAME_____
Professor H. Quirmbach   STUDENT ID NO. _____
First Midterm Exam   GROUP TIME_____


SCORE_____

INSTRUCTIONS:

1.   Fill in all requested information above and on the answer sheet.

2.   There are 25 multiple choice questions and one problem. Enter one and
only one answer for each multiple choice question on the answer sheet. There
is no penalty for guessing. On the answer sheet, completely darken the
letter representing your choice for each question. Do the problem on the
test paper itself.

<u>MULTIPLE CHOICE QUESTIONS</u>

1. The Production Possibility Frontier (PPF) does all of the following, EXCEPT
    a. distinguish what a society can produce with its technology and resources from what it cannot produce.
    b. shift outward when a new oil field is discovered.
    c. shift outward when society corrects inefficiencies in its use of existing technology.
    d. indicate that there is a trade-off between goods and services a society can produce.
    e. The PPF does all of the above.

2. A microeconomist studies, among other things,
    a. how, what, and for whom goods and services are produced.
    b. how the government deficit affects the rate of unemployment.
    c. how the demand for cars is affected by the price of gasoline.
    d. both a. and b.
    e. both a. and c.

3. Which of the following is a "positive" (i.e., rather than a "normative") statement?
    a. Economists should never make value judgments.
    b. The government should crack down on welfare cheaters.
    c. The 1986 tax reform bill is unfair to middle income people.
    d. "Reaganomics" has not reduced the rate of inflation.
    e. Passing a balanced budget amendment would be the most morally correct way to cut the government budget deficit.

4. Last year, Toys-R-Profits, Inc., sold 1000 toy sailboats at $10 each. This year, due to the popularity of the Olympic sailing races, the company anticipates being able to sell 2000 sailboats at $20 each. The most likely explanation for this change is
    a. the demand curve for toy sailboats is upward sloping.
    b. the demand curve for toy sailboats has shifted to the right.
    c. the demand curve for toy sailboats has shifted to the left.
    d. the supply curve for toy sailboats has shifted to the right.
    e. the supply curve for toy sailboats has shifted to the left.

5. At bundle A on Fred's budget line, the marginal utility of good x is 8 while the marginal utility of good y is 6. If the price of x is $2 and the price of y is $1, Fred could feasibly raise his utility from A by
    a. buying more of both goods.
    b. buying more of good x and less of y because the marginal utility of x is higher.
    c. buying more of good y and less of x because y provides higher utility per dollar at the margin.
    d. Fred cannot improve his utility because he is already at his budget line.
    e. None of the above.

6. When economists say that a good is "inferior," they are referring to
   a. the effect of a change in income on the quantity of the good demanded.
   b. the fact that the good has low marginal utility to consumers.
   c. the effect of a price increase on total expenditure on the good.
   d. the "substitution effect" part of a price change.
   e. the fact that the manufacturer of the good has poor quality control.

7. When the price of tennis balls is $3 per can, Leigh's total expenditure on tennis balls is $30. If, when the price of tennis balls drops to $2 per can, Leigh's expenditure on tennis balls is still $30, we can conclude that
   a. the price elasticity of Leigh's demand is zero.
   b. the income elasticity of Leigh's demand is zero.
   c. the price elasticity of Leigh's demand is -1/3.
   d. the price elasticity of Leigh's demand is -1.
   e. both a. and b.

8. When the retail price of gasoline exceeds its market equilibrium level,
   a. excess demand for gasoline is likely to cause the price to fall.
   b. compared to the equilibrium, gas station owners may offer to supply more gasoline but are actually likely to sell less.
   c. the demand curve for gasoline is likely to shift to the left.
   d. excess supply of gasoline will keep the price high.
   e. none of the above is true.

9. Each of the following could be expected to cause a shift in the demand curve for mink coats except
   a. an unusually cold winter.
   b. a fall in the price of raccoon coats.
   c. a tax cut which increased consumers' disposable incomes.
   d. a fall in the price of machines used to make mink coats.
   e. All of the above would shift the demand for mink coats.

10. When the prices of goods x and y are both $3, Gary buys five units of good x. When the price of good x rises to $5 and the price of y to $20, Gary still buys five units of good x. If Gary's demand curve for x is downward sloping and his income has not changed, we can conclude that
   a. Gary regards good x as a substitute for good y.
   b. Gary regards good x as a necessary good.
   c. Gary regards good x as a complement for good y.
   d. Gary is obviously irrational.
   e. there is insufficient information to reach any firm conclusion.

11. When the price of ice cream is $2 per gallon, John buys 3 gallons. If the price rises to $4 per gallon, John buys only 2 gallons. The price elasticity of John's demand for ice cream is
   a. -6/8 = -3/4.
   b. -8/6 = -4/3.
   c. -10/6 = -5/3.
   d. unitary.
   e. -0.6

12. Utility is a measure of
    a. a consumer's electricity usage.
    b. a seller's revenues.
    c. a consumer's income.
    d. a product's cost.
    e. a consumer's satisfaction.

13. Suppose that Janet's own price elasticity of demand for walnuts is -2.0. The price of walnuts changes (ceteris paribus), and Janet's quantity of walnuts purchased falls by 10%. We conclude that the price of walnuts has
    a. fallen by 20%.
    b. fallen by 5%.
    c. risen by 5%.
    d. risen by 10%.
    e. risen by 20%.

14. Comparing the indicated bundles of goods x and y in Fig.1, we can conclude from our standard conditions on consumer preferences that
    a. A is preferred to C, which is preferred to B.
    b. C is preferred to A, which is preferred to B.
    c. A and C are of equal utility, but both are preferred to B.
    d. A and C are both preferred to B, but we need more information to decide whether A or C is the best.
    e. none of the above.

Fig. 1
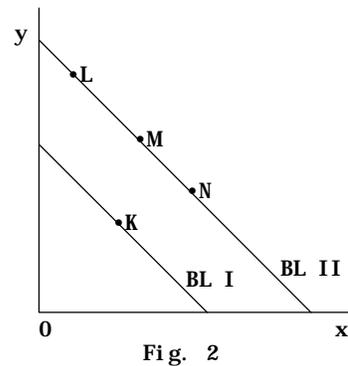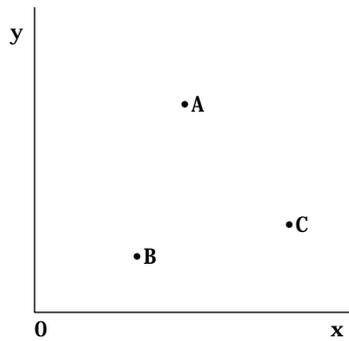
Fig. 2

15. Along budget line BL I in Fig.2, Ken's preferred bundle is K. Ken's income now rises. Suppose that along the new budget line BL II Ken's preferred bundle is one of the bundles L, M, or N. Then, for Ken, we can conclude that
    a. good y is normal, but it is luxury only if the new bundle is L.
    b. good y is normal, but it is necessary only if the new bundle is N.
    c. good x is normal for sure.
    d. good x is a Giffen good if the new bundle is L.
    e. good x is luxury if the new bundle is L.

16. The local economy of Castaway Island has only two consumers, Robinson and Friday. Both regard straw hats as a normal good. For Robinson, dodo eggs are also a normal good, while for Friday they are an inferior good. If the incomes of both Robinson and Friday increase while prices remain constant, then locally on Castaway Island

    a. the market demand for straw hats rises, while the market demand for dodo eggs falls.

    b. the market demand for straw hats rises, and the market demand for dodo eggs also rises.

    c. the market demand for straw hats rises, but the effect on the market demand for dodo eggs is not clear from this information.

    d. the market demand for straw hats falls, but the effect on the market demand for dodo eggs is not clear from this information.

    e. none of the above occurs.

17. In the same Castaway Island economy as the last question, suppose that both Robinson and Friday have downward sloping demand curves for coconuts. For Robinson, pineapples are a substitute for coconuts, whereas for Friday pineapples are a complement for coconuts. If the price of coconuts rises but all other factors are held fixed, then locally on Castaway Island

    a. the market demand curve for coconuts shifts in, while the market demand curve for pineapples shifts out.

    b. the market demand curve for coconuts shifts in, and the market demand curve for pineapples also shifts in.

    c. the market demand curve for coconuts shifts in, but the effect on the market demand for pineapples cannot be determined without more information.

    d. the market demand curve for coconuts shifts out, but the effect on the market demand for pineapples cannot be determined without more information.

    e. none of the above occurs.

18. At the equilibrium price in a market,

    a. there is a tendency for prices to rise.

    b. there is a tendency for prices to fall.

    c. there is no longer a tendency for prices to rise or fall.

    d. quantity supplied exceeds quantity demanded.

    e. quantity demanded exceeds quantity supplied.

19. If the price of good x rises,

    a. the income effect always tends to reduce the consumption of x.

    b. the income and substitution effects always go in opposite directions.

    c. the income and substitution effects go in the same direction if x is a normal good.

    d. the substitution effect always tends to reduce the consumption of x.

    e. both c. and d.

20. In Fig. 3, if the initial demand and supply curves are D1 and S1, respectively, equilibrium price and quantity are
    a. $2 and 30 oranges.
    b. $3 and 20 oranges.
    c. $4 and 10 oranges.
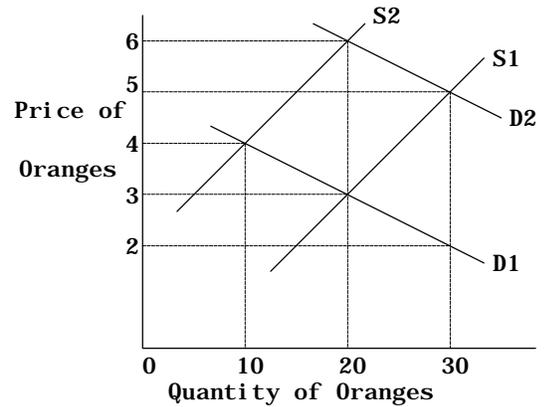   d. $5 and 30 oranges.
    e. $6 and 20 oranges.

21. In Fig. 3, if the demand curve is D1 and the supply curve shifts from S1 to S2, the arc own price demand elasticity is revealed to be
    a. -4
    b. -7/3
    c. -3/2
    d. -2/3
    e. -3/7

Fig. 3

22. The shift in demand from D1 to D2 in Fig. 3 might reasonably be caused by a (an)
    a. increase in the price of grapefruit, a substitute product.
    b. increase in the price of oranges.
    c. shift in supply from S1 to S2.
    d. decrease in consumer taste for oranges.
    e. decrease in the price of oranges.

23. Given the budget line in Fig. 4, if the prices of X and Y are $4 and $5 respectively, the maximum quantity of good Y that the consumer can buy
    a. is 16 units.
    b. is 20 units.
    c. is 25 units.
    d. is 10 units.
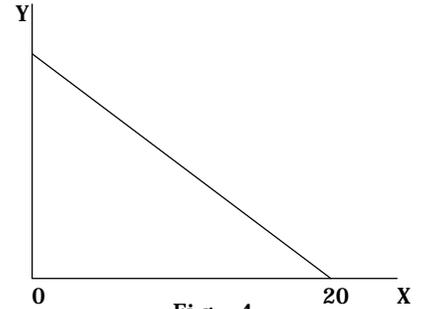   e. cannot be determined from the diagram.

Fig. 4

24. Given the demand and supply information in the table, if the government establishes a price floor at $6,
    a. there will be an excess supply of 1000 units.
    b. there will be an excess supply of 850 units.
    c. there will be an excess demand of 150 units.
    d. there will be an excess demand of 1000 units.
    e. demand will equal supply at 950 units.

Price	Quantity Demanded	Quantity Supplied
$2	1000	300
$4	950	950
$6	800	1800
$8	500	2000

25. As an individual consumer's income increases, that consumer's
    a. indifference curve makes a parallel shift out.
    b. indifference curve makes a clockwise rotation out.
    c. budget line rotates out about the vertical intercept.
    d. budget line rotates out about the horizontal intercept.
    e. budget line makes a parallel shift out.

PROBLEM

In doing the following problem, use the graph grid below.

Dennis spends his income on two goods: wine and cheese. The following bundles yield him equal utility (wine amount listed first, cheese amount second):

$$(1, 10)\qquad (2, 5)\qquad (3, 3)\qquad (5, 2)\qquad (9, 1)$$

Graph the indifference curve connecting these bundles, putting wine on the horizontal axis and cheese on the vertical axis. Assume that adjacent bundles are connected by straight line segments.

Suppose that initially the prices of wine and cheese are both $4 and that Dennis' income is $24. Draw the resulting budget line and label it BL1. Dennis' demanded bundle is:

$$\text{wine} = \underline{\hspace{1cm}}; \quad \text{cheese} = \underline{\hspace{1cm}}$$

Label this bundle K on the graph.

Now let the price of wine fall to $2, while income and the price of cheese remain constant. Draw the new budget line and label it BL2. Suppose that the new demanded bundle is (4, 4). Label this point M on the figure. Using the arc method, compute the own price elasticity of the demand for wine between K and M: _____

Is the demand for wine elastic or inelastic?   _____
Now compute the cross elasticity of the demand for cheese with respect to the price of wine, again using the arc method: _____

Is cheese a substitute or complement for wine?   _____