Principles of Microeconomics
Exam IIa

Mark the one best answer on your scantron. Show your calculations on the scantron. Do not mark on this exam.

1. Which of the following are assumptions of consumer theory?
   I. Limited income
   II. Unlimited wants
   III. Satisfaction maximization
   IV. Rational behavior
   a) I, II, III, IV
   b) I, III, IV
   c) II, III
   d) II, III, IV
   e) none of the above

2. _____ is satisfaction gained by consumption.
   a) Average utility
   b) Total utility
   c) Marginal utility
   d) Utility
   e) none of the above

3. As consumption decreases, average utility _____.
   a) increases
   b) decreases
   c) remains constant
   d) cycles up and down
   e) none of the above

4. Increasing income causes reduced consumption which _____ marginal utility.
   a) increases
   b) decreases
   c) does not effect
   d) randomly effects
   e) none of the above

5. The _____ effect increases consumption of good Y when income increases.
   a) substitution
   b) complementary
   c) income
   d) consumption
   e) none of the above

Quantity	Coffee MU	Bagels MU
1	50	24
2	45	12
3	35	6
4	25	4
5	20	2
Price	$5.00	$2.00

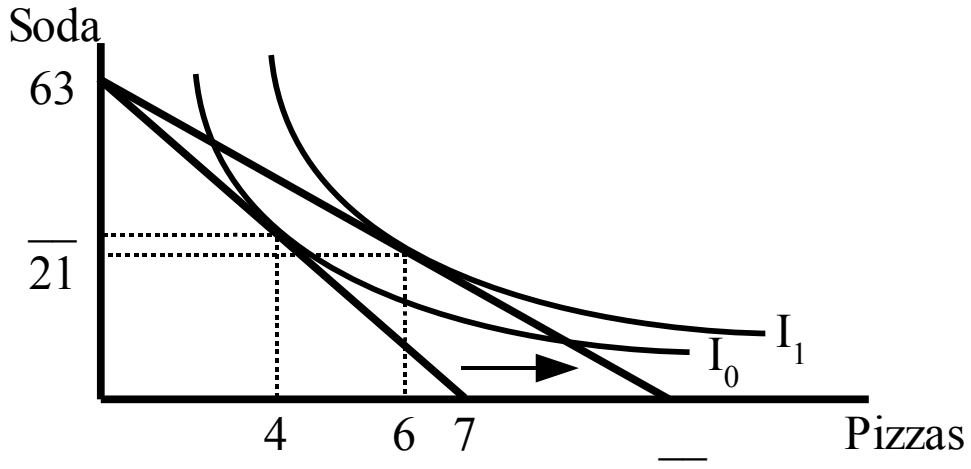
6. Given an income of $12, how many coffee's will be purchased?
   a) one
   b) two
   c) three
   d) four
   e) none of the above

7. What is the MU/P ratio for bagels at a quantity of 3?
   a) 2
   b) 24
   c) 3
   d) 21
   e) none of the above

8. At an income of $12, the price of coffee's has increased to $6. How many bagel's will be purchased?
   a) one
   b) two
   c) three
   d) four
   e) none of the above

9. At the original prices and an income of $18, how many coffee's will be purchased?
   a) one
   b) two
   c) three
   d) four
   e) none of the above

10. With reference to price, what type of good is a bagel?
   a) substitute
   b) complement
   c) income normal
   d) inferior
   e) none of the above



11. Given a soda price of $1, what is the income on the outer income line?
    a) 0
    b) 1
    c) 21
    d) 63
    e) none of the above

12. What is the price of pizza on the outer income line?
    a) 1
    b) 6
    c) 7
    d) 9
    e) none of the above

13. What is the amount of pizza consumed on the outer income line?
    a) 0
    b) 4
    c) 6
    d) 7
    e) none of the above

14. The slope of the outer budget line is _____.
    a) -7
    b) 7
    c) -9
    d) 9
    e) none of the above

15. With respect to pizza, what type of good would soda be considered?
    a) substitute
    b) complement
    c) income inferior
    d) income normal
    e) none of the above

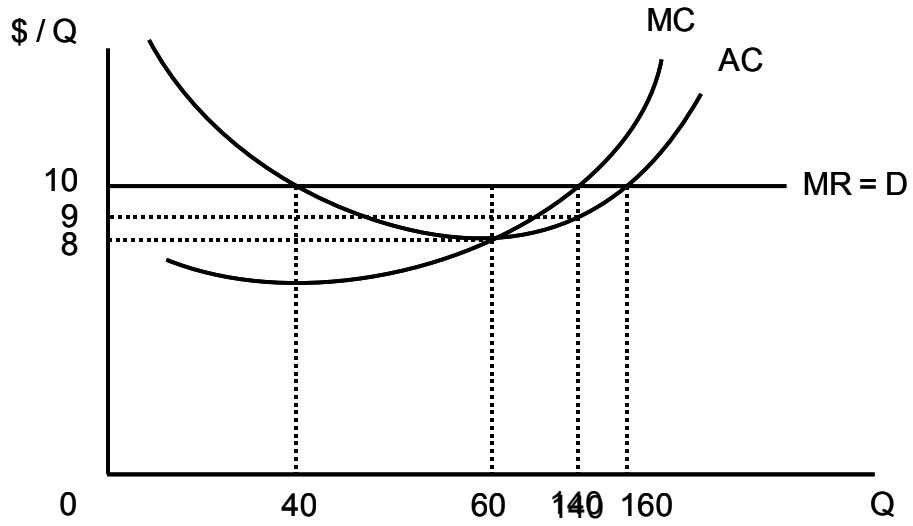
16. What is the production function?
    a) The relationship between fixed and variable cost.
    b) The relationship between fixed and variable product.
    c) The relationship between input and output.
    d) Marginal output.
    e) none of the above

17. What is the Total Product of Labor?
    a) Labor.
    b) Labor / quantity.
    c) Total output of Labor.
    d) The change in output per change in one unit of labor.
    e) none of the above

18. Total cost is _____ cost plus _____ cost.
    a) average, marginal
    b) average fixed, average variable
    c) marginal, average
    d) fixed, average
    e) none of the above

19. Marginal cost is _____.
    a) profit/ cost
    b) cost / profit
    c) cost / quantity
    d) quantity / cost
    e) none of the above

20. Average revenue is _____.
    a) price times quantity
    b) the change in revenue per unit sold
    c) revenue/quantity
    d) revenue/cost
    e) none of the above



21. At what quantity does this firm maximize profit or minimize loss?
    a) 40
    b) 60
    c) 140
    d) 160
    e) none of the above

22. At a quantity of 140, the TR is _____.
    a) 1,400
    b) 1,260
    c) 140
    d) 0
    e) none of the above

23. At a quantity of 140, the TC equals _____.
    a) 1,400
    b) 1,260
    c) 1,120
    d) 140
    e) none of the above

24. At a quantity of 140, the profit (loss) equals _____.
    a) 140
    b) 280
    c) 1.120
    d) 1,400
    e) none of the above

25. At a quantity of 140, the net profit margin equals _____.
    a) 0
    b) 50%
    c) 10%
    d) 100%
    e) none of the above

CampusTexts, is preparing a budget for the coming year. The average textbook price is $150 for which they pay $50. CampusTexts incurs labor expense of $120,000 and rent expense of $160,000 per year.

26. What is the average variable cost?
    a) 150
    b) 100
    c) 50
    d) 200
    e) none of the above

27. What is the breakeven point in quantity?
    a) 2,800
    b) 1,200
    c) 1,600
    d) 1,867
    e) none of the above

28. What is the contribution margin?
    a) 150
    b) 100
    c) 50
    d) 200
    e) none of the above

29. At a Return On Sales of 20%, what is the sales in dollars needed (rounded)?
    a) 280,000
    b) 560,000
    c) 595,745
    d) 848,485
    e) none of the above

30. If the firm produced 1,000 units, what would be the total profit (loss)?
    a) (180,000)
    b) (20,000)
    c) 20,000
    d) 120,000
    e) none of the above

Microeconomics Exam II a Key

1	A	Some economists include satisfaction maximization under rational behavior
2	D	Utility is satisfaction, happiness, or usefulness gained from consumption.
3	A	See explanation for #4
4	A	As consumption decreases, each unit becomes more valuable. The other side of the principle of diminishing marginal utility.
5	C	Since it changes with income, it has to be an income effect.
6	B	See explanation on next page.
7	C	MU 6 / $2 = 3
8	A	See explanation on 2nd following page.
9	C	See explanation on next page.
10	E	The bagel, in this case, is an independent good. Its consumption does not vary.
11	D	63*$1 = $63
12	C	$63 -(21*$1) = 42 / 6 = 7; gotten from the point of tangency
13	C	At point of tangency between outer indifference curve and budget line
14	A	Method 1: Ratio of prices: Pbagels/Ppizza = -7/1 = -7 Method 2: 63/-9 = -7; 63 is the rise, -9 is the run; slope = rise/run; it is downward thus negative. Where 9 is the number of pizzas purchased when number of bagels is zero. ($64/7)
15	A	Since as pizza is cheaper, more pizza is consumed and less soda, it is a substitute.
16	C	The production function is just the relationship between input and output.
17	C	Product = Output, in this case Total.
18	E	Fixed plus variable costs
19	E	chg TC / chg Q
20	C	AR = TR / Q = P*Q/Q = P
21	C	Maximize profit by producing Q where MR = MC
22	A	140*$10 = $1,400
23	B	140*$9 = $1,260
24	A	140*(10-9) = $140
25	C	(10-9)/10 = 10% (P-AC)/P
26	C	Variable costs are often the cost of production, or cost of merchandise
27	A	(120,000+160,000)/(150-50) = 2,800
28	B	150 – 50 = 100
29	C	(120,000 + 160,000)/(.67-.2) = 595,745 Where .67 = (150-50)/150 (P-AVC)/P
30	A	1,000*($150-50) – (160,000+120,000) = (180,000); Revenue – Costs = Profits

Quantity	Coffee MU	Coffee MU/P	Bagels MU	Bagel MU/P
1	50	10	24	12
2	45	9	12	6
3	35	7	6	3
4	25	5	4	2
5	20	4	2	1
Price	$5.00		$2.00	

With an income of $12, buy bagel first (value of 12), then coffee (value of 10) then, coffee (value of 9) working our way from the highest value to the lowest value.

Spent $2 + $5 +$5

With an income of $18 , continue with another coffee (value of 7), stop, do not have enough money to buy next item. Spent $2 + $5 +$% + $% = $17

Quantity	Coffee MU	Coffee MU/P	Bagels MU	Bagel MU/P
1	50	8.3	24	12
2	45	7.5	12	6
3	35	5.8	6	3
4	25	4.2	4	2
5	20	3.7	2	1
Price	$6.00		$2.00	

With an income of $12, a new coffee price of $6, the buying order would be:

buy bagel (value of 12), buy coffee (value of 7.5) spent $8 has $4 left over. Why would this work? They would buy products other than coffee and bagels or save money until next period.