Gulf University for Science and Technology

Department of Economics and Finance

Ec 101 - Principles of Microeconomics

Spring 2011/2012, March 2012

Head damaged

KEY OF Test 2, Version A

Instructor: Asiye Aydilek

From Chapters 6,7,8

The blanks below should be filled by the student

Name :.....

GUST Id:.....

Instructions

The exam contains multiple choice questions. The answers should be written to the scantron with pencil

Please write your name, GUST ID and version (A or B) to both scantron and the exam paper

Circle the last 4 digits of your GUST ID in the scantron with pencil

If you do not have pencil, please request it from the proctor

You are not allowed to share calculators

You are not allowed to use your mobiles as a calculator or any other reason

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) Joe's income is $500, the price of food (F) is $2 per unit, and the price of shelter (S) is $100. Which of the following represents his budget constraint?
A) S = 500 - 2F B) 500 = 100F + 2S
C) 500 = 2F + 100S D) All of the above.

2) If the prices of both goods and income increase by the same percentage, what will happen to the budget line?
A) The budget line shifts outward without a change in slope.
B) The budget line rotates outward from the intercept on the axis of the good that did not change in price.
C) The budget line rotates inward from the intercept on the axis of the good that did not change in price.
D) Nothing.

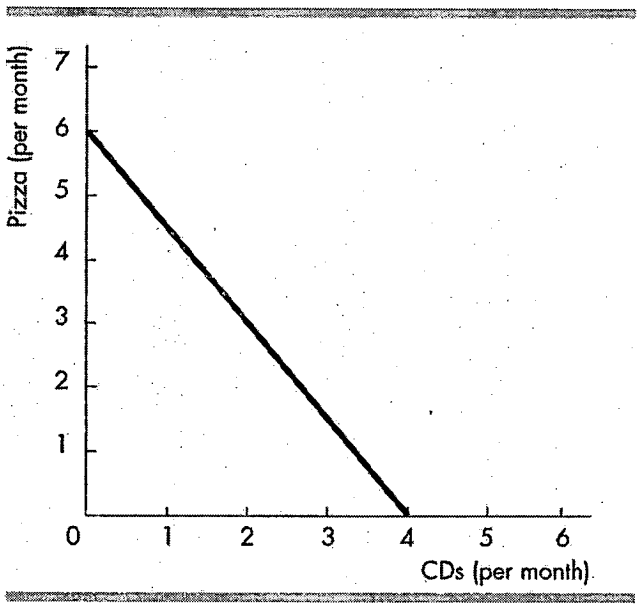

Figure 1

3) Given the budget line in Figure 1, if income is $60, then the price of a pizza is **_10_____** and the price of a CD is **___15_____**.
A) $5; $20 B) $6; $4 C) $10; $15 D) $15; 15

4) According to the budget line in Figure 1, which of the following combinations is unaffordable?
A) 3 pizzas and 2 CDs **B) 2 pizzas and 4 CDs**
C) 1 pizza and 3 CDs D) All of the above are affordable.

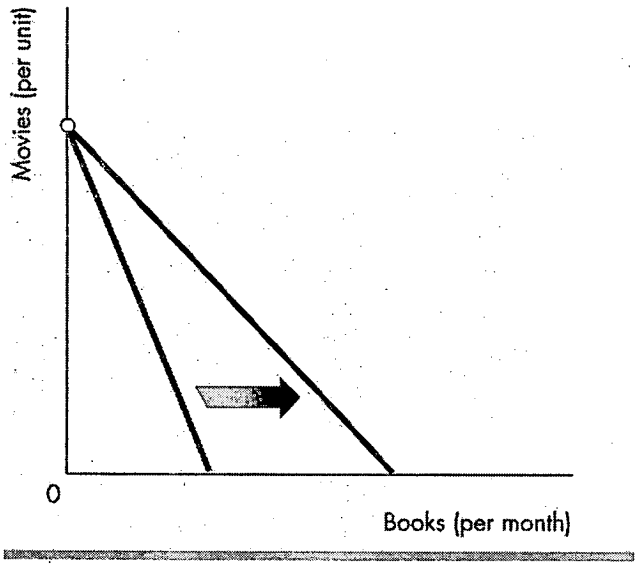

Figure 2

5) In Figure 2, the budget line would rotate in the direction indicated as a result of a
A) rise in the price of a movie. **B) fall in the price of a book.**
C) rise in the price of a book. D) decrease in income.

Quantity of DVDs	Marginal utility from DVDs	**MU/P**	Quantity of pizza	Marginal utility from pizza	**MU/P**
1	150	**30**	1	200	**20**
2	120	**24**	2	180	18
3	100	**20**	3	150	**15**
4	90	18	4	120	**12**
5	60	**12**	5	100	**10**
6	40	**8**	6	60	**6**

Table 1

6) Lisa spends all her income on pizzas and DVDs. Table 1 shows Lisa's marginal utility for pizza and marginal utility for DVDs. If the price of a pizza is $10, the price of a DVD is $5, and Lisa has $25 to spend on the two goods, what combination of pizza and DVDs will maximize her utility?
A) 2 DVDs and 3 pizzas B) 6 DVDs and 1 pizza
C) 5 DVDs and 4 pizzas **D) 3 DVDs and 1 pizza**

	COST
3DVD, 1 PIZZA	**=15+10=25**
4 DVD, 2 PIZZA	**=20+20=40**
5DVD, 4 PIZZA	**=25+40=65**

7) The only goods you consume are pizza and soda. Both are normal goods. For you, pizza and soda are substitutes. Which of the following leads you to buy more of *both* goods?
A) The price of a soda falls. B) The price of a pizza falls.
C) Your income increases. D) Both answers A and B are correct.

8) Dan is consuming coffee and bagels so that $MU_c/P_c=15$ and $MU_b/P_b=9$. To get higher utility, Richard should: (c refers to coffee and b refers to bagels)
A) consume more coffee and less bagels.
B) consume less of both coffee and bagels.
C) consume less coffee and more bagels.
D) continue to consume the same amount of coffee and bagels, as he is already maximizing utility.

MU of coffee should be decreased and MU of bagels should be increased.

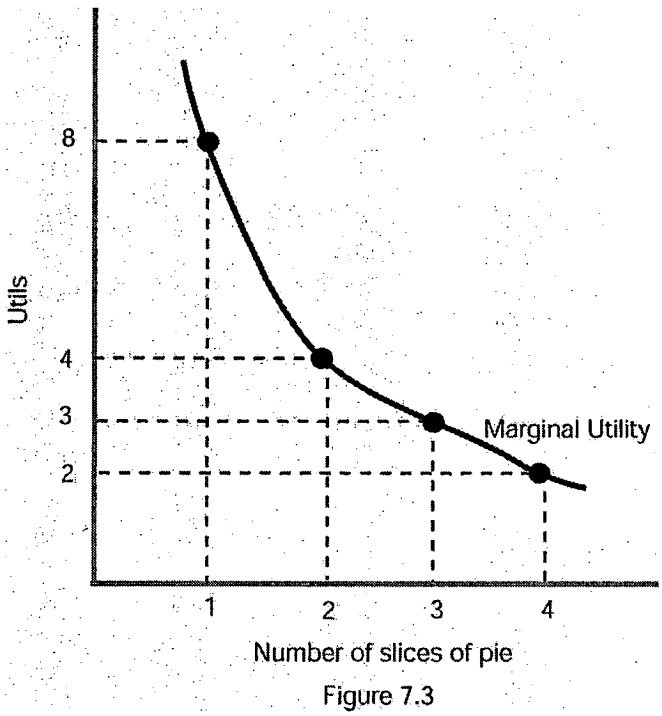

Figure 7.3

9) Refer to Figure 7.3. The total utility from consuming 4 slices of pie is:.
A) 17. B) 8. C) 15. D) 2.

10) Assume leisure is a normal good. The substitution effect of a wage decrease implies a _____ demand for leisure and a _____ labor supply.
A) higher; lower B) lower; higher C) higher; higher D) lower; lower

11) The marginal products of the first, second, and third workers are 20, 12, and 8, respectively. If four workers can produce 45 units of output, then the marginal product of the fourth worker is _____ .
A) 4 **B) 5** C) 40 D) 45

Total product of 3 workers = 40
Total product of 4 workers = 45

Refer to the information provided in Figure 7.4 below to answer the questions that follow.

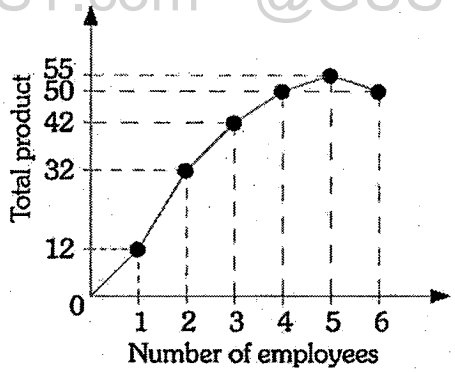

Figure 3

12) Refer to Figure 3. The marginal product of the second worker is
A) 10. B) 16. **C) 20.** D) 32.

Use the information provided in Table 2 below to answer the questions that follow.

Table 2
Inputs Required to Produce a Product Using Alternative Technologies

Technology	Units of Capital	Number of Employees
A	4	18
B	6	12
C	8	8
D	12	6

13) Refer to Table 2 above. Which technology is the most labor intensive?
A) A B) B C) C D) D

14) Refer to Table 2. If the hourly wage rate is $7 and the hourly price of capital is $10, which production technology should be selected?
A) A B) B **C) C** D) D

Tech cost
A **10x4+7x18=40+126=166**
B **10x6+7x12=60+84=144**
C ***10x8+7x8=80+56=136***
D **10x12+7x6=120+42=162**

15) Economists typically assume that the owners of firms wish to_____
A) maximize sales revenues. B) produce efficiently.
C) maximize profits. D) All of the above.

16) With respect to production, the short run is best defined as a time period
A) in which at least one input is fixed. B) in which all inputs are fixed.
C) lasting about six months. D) lasting about two years.

Scenario 1: John used to work for a law firm where he earned a yearly salary of $50,000. He got tired of working for another firm so he opened his own law office. He now pays his secretary $20,000 per year and spends $25,000 for rent and utilities. He earns $100,000 in annual revenue.

17) Refer to Scenario 1. John's accounting profit is:
A) $100,000. B) $45,000. C) $5,000. **D) $55,000.**

18) Refer to Scenario 1. John's economic profit is:
A) $45,000. **B) $5,000.** C) $55,000. D) $100,000.

19) Which of the following would be classified as a fixed cost for the local supermarket?
A) The cost of the boxes of cereal sold in the store.
B) The salary and any overtime paid the store's manager.
C) The Social Security tax the store pays the federal government on the workers' income.
D) The rent for the building the store uses.

Cost schedule

Labor (workers)	Output(units per day)	Total fixed cost (dollars)	Total variable cost (dollars)
0	0	20	0
1	4	20	25
2	9	20	50
3	13	20	75
4	16	20	100
5	18	20	125

Table 3

20) In Table 3, the total cost of producing 9 units of output is
A) $50. **B) $70.** C) $30. D) $20.

21) Table 3 shows a firm's
A) short-run and long-run costs.
B) long-run costs.
C) short-run costs.
D) More information is needed to determine if the costs are long-run costs or short-run costs.

23) Table 3, the total variable cost of producing 16 units of output is
A) $120. **B) $100.** C) $20. D) $60.

24) Using the data in Table 3, when output increases from 4 to 9 units, the marginal cost of *one* of those 5 units is
A) $4.00. **B) $5.00.** C) $4.25. D) $6.25.

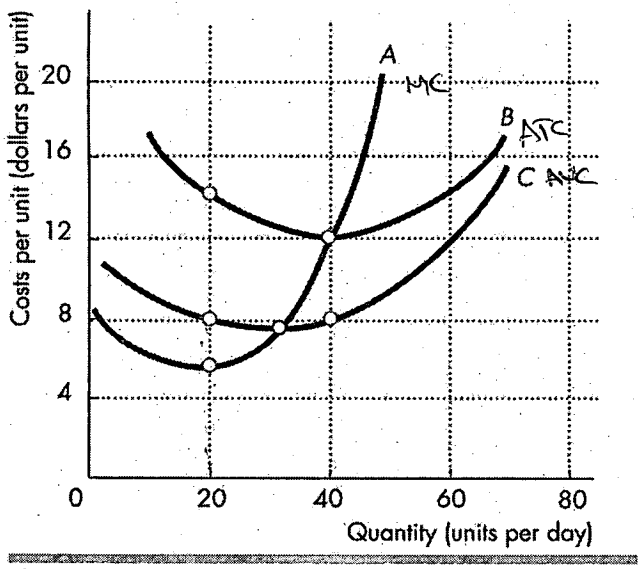

Figure 4

25) In Figure 4, curve *C* is the _____ curve.
A) average fixed cost B) marginal cost
C) average total cost **D) average variable cost**

Breakeven MC = ATC = 12

26) In Figure 4, curve *A* is the _____ curve.
A) average total cost B) average variable cost
C) average fixed cost **D) marginal cost**

Shut down MC = AVC = 8

27) In Figure 4, curve *B* is the _____ curve.
A) average total cost B) average variable cost
C) marginal cost D) average fixed cost

28) In Figure 4, when 20 units are produced the marginal cost is
A) more than $8 and less than $16. **B) less than $8.**
C) $8. D) None of the above answers is correct.

29) In Figure 4, when 40 units are produced the average fixed cost is
A) $8 **B) $4** C) $20 D) $12

AFC = ATC − AVC
12 − 8 = 4

30) In Figure 4, as output increases, the distance between curves B and C decreases because
A) there are diminishing returns to average total cost.
B) average fixed cost decreases as output increases.
C) total cost decreases as output increases.
D) there are increasing marginal costs as output increases.

31) Which of the following is NOT an assumption of perfect competition?
A) There are no restrictions on entry into the market.
B) The price each firm sets differs from the prices set by the other firms.
C) There are many buyers.
D) There are many firms, each selling an identical product.

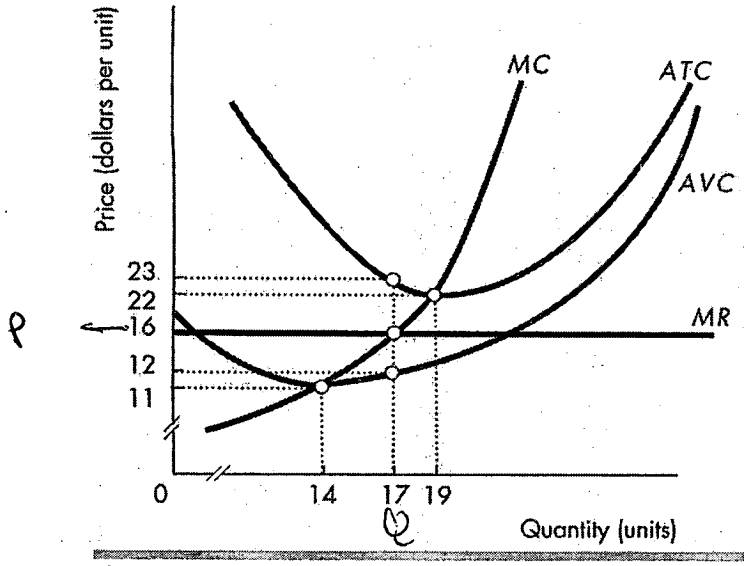

Figure 5

32) Consider the perfectly competitive firm in Figure 5. The profit maximizing level of output for the firm is
A) 19 units. **B) 17 units.** C) 14 units. D) 0 units.

33) Consider the perfectly competitive firm in Figure 5. At the profit maximizing level of output, the firm is
A) incurring an economic loss equal to $123.50.
B) incurring an economic loss equal to $187.00.
C) incurring an economic loss equal to $119.00.
D) making zero economic profit.

Breakeven MC=ATC = 22
Shut down 11

16 loss MR Before ATC , AVC
and continue

TR = 17 x 16 = 272

TC = Q x ATC = 391
17 x 23

Profit = 272 - 391 = 119$
loss

(P - ATC) x Q
(16 - 23) x 17
7 x 17 = 119
loss