

“What you cannot as you would achieve - You must perforce accomplish as you may”
Shakespeare

Instructions: The exam is comprised of 35 multiple-choice and two short-answer questions with multiple parts. The response to the multiple-choice questions should be recorded on your scantron answer sheet. Each multiple choice question is worth 4 points. The short-answer questions should be answered in the space provided. Each short-answer question is worth 55 points. You have an hour and 20 minutes to complete the exam.

Multiple Choice:

1. Given the function $Y=4X-7$, you could say

- A. the X intercept is -7. B. the Y intercept is $7/4$.
C. the function has a slope of -7. *D. the function has a positive slope.
E. none of the above.

2. Marginal utility:

- A. is positive only when total utility is increasing. B. is always downward sloping.
C. equals zero when total utility is maximized. D. both (A) and (B).
*E. Both (A) and (C).

3. If the US can produce 6 stereos or 2 televisions in 8 hours and Japan can produce 7 stereos and 3 televisions with in same amount of time, then Japan has a(n) _____ advantage in _____ production and the US has a(n) _____ in _____ production.

- A. comparative; stereos; absolute; both goods.
B. absolute; both goods; comparative; televisions.
C. comparative; stereos; comparative; televisions.
*D. comparative; televisions; comparative; stereos.
E. comparative; both goods; comparative; neither goods.

4. When Mary Consumer is spending all of her money, the marginal utility of good A and B is, respectively, 60 and 40; the price of A and B is, respectively, \$6 and \$4. If Mary is a utility maximizing consumer, she should:

- *A. remain at the present consumption level for both A and B.
B. consume more A, and less B.
C. consume more of B, and less A.
D. consume less of both goods

5. Along the bowed-out production possibility curve we have:

- A. gains from trade B. increasing marginal opportunity cost
C. efficient production choices *D. both (B) and (C)
E. all of the above

6. A point on the demand curve for good X can be described as:
- A. the demand for good X
 - *B. the quantity demanded of good X at that price
 - C. the change in slope at the point
 - D. all of the above
 - E. none of the above
7. An example of normative statements is:
- A. the new ethnic studies program on the University of Oregon is long overdue.
 - B. the multi-cultural requirement at the University of Oregon will reduce the number of reported cases of racial discrimination on campus.
 - C. women's athletics should receive the same number of scholarships as those given to male athletes.
 - *D. both (A) and (C).
 - E. none of the above.

Use the schedule for beer consumption (Q_B) below to answer question 8-9

Q_B	$U(Q_B)$	MU_B
0	0	
1	5	
2	15	
3	20	
4	22	
5	15	
6	-10	

8. The marginal utility between 0 and 2 beers is:
- A. 0
 - B. 5
 - C. 15
 - D. insufficient information.
 - *E. none of the above
9. The point of diminishing marginal returns occurs after:
- A. the first beer.
 - *B. the second beer.
 - C. the third beer.
 - D. after the fourth beer.
 - E. none of the above.
10. Pricing programs such as "buy the first one, get the second at half price" are:
- A. a recognition by firms that demand curves are downward sloping.
 - B. a method of appropriating consumer surplus.
 - *C. both (A) and (B)
 - D. neither (A) or (B).

11. In the consumer model, an individual is constrained by:

- A. positive prices.
- B. limited income.
- C. limited time.
- *D. both (A) and (B).
- E. both (B) and (C).

12. Consumer surplus is:

- A. the difference between what the consumer is willing to pay and has to pay.
- B. the area below the demand curve above the price.
- *C. both (A) and (B).
- D. neither (A) or (B).

13. The law of diminishing marginal utility states that:

- A. total utility is maximized when consumers obtain the same amount of utility per unit of each product consumed
- *B. beyond some point additional units of a given good yield less and less extra satisfaction to a consumer.
- C. price must be lower in order to induce firms to supply more of a product.
- D. it will take larger and larger amounts of resources beyond some point to produce successive units of a product.

Use the diagram below to answer questions 14-16.

14. The consumer surplus for this consumer is equal to:

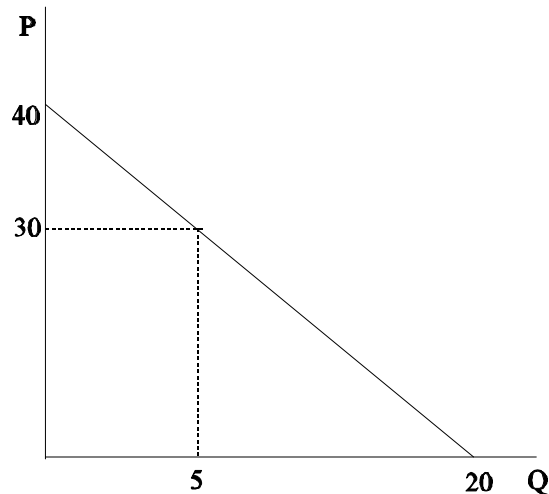
- A. 150
- B. 75
- C. 50
- *D. 25
- E. insufficient information to answer question.

15. If the price increased in this market the total revenue in the industry would:

- A. increase.
- *B. decrease.
- C. remain constant.
- D. insufficient information to answer question.

16. The point elasticity of demand at a price 40 is:

- *A. ∞
- B. 20
- C. 5
- D. 0.
- E. insufficient information.



17. A consumer's demand curve for a product is downward sloping because:

- A. total utility falls below marginal utility as more of a product is consumed.
- *B. marginal utility diminishes as more of a product is consumed.
- C. time becomes less valuable as more of a product is consumed.
- D. income and substitution effects precisely offset each other.

18. Mr. Solow has an income of \$20 which he is spending on wine and cheese in such amounts that he derives 25 utils of satisfaction from the wine and 25 utils of satisfaction from the cheese. On the basis of this information we:

- *A. cannot say whether or not Solow is buying wine and cheese in equilibrium amounts.
- B. can say that Solow should buy more cheese and less wine.
- C. can say that Solow should buy more wine and less cheese.
- D. can say that Solow is buying the utility-maximizing amounts of wine and cheese.

19. A Giffen good:

- A. is a good that violates the law of demand.
- B. is an inferior good in which the income effect dominates the substitution effect.
- C. is an inferior good in which the substitution effect dominates the income effect.
- *D. both (A) and (B).
- E. both (A) and (c).

20. A necessary condition for a price system is:

- *A. property rights.
- B. brute force.
- C. government.
- D. queuing.
- E. tradition.

21. If a state government had a limited amount of tax and other revenue but decided to substantially increase the amount of appropriations to public education, appropriations to other functions such as corrections, health, and welfare would diminish. What concept is represented by this statement?

- *A. Opportunity costs.
- B. Normative analysis.
- C. Efficiency.
- D. The Law of Demand
- E. None of the above.

22. Lyndon Johnson's assurances in 1964 that the U.S. could fight the Vietnam War without reducing civilian living standards or government social programs would be valid only if our economy started from a position:

- A. of full employment.
- *B. with substantial unemployed capacity.
- C. on our PPF.
- D. that everyone agreed was equitable.

23. If you choose to play tennis on Wednesday morning and the next best use for your time is studying that morning
- A. studying that morning is the benefit of playing tennis.
 - B. the opportunity cost of playing tennis will be zero.
 - C. you do not have enough information to determine the opportunity cost of playing tennis in the morning.
 - *D. the opportunity cost of playing tennis is the morning of study sacrificed.
24. A prevalent economic theory asserts that, ceteris paribus, consumers will be willing and able to purchase more of a good at lower prices than they will at higher prices. However, throughout the 1970s consumers purchased more and more housing even though the price was rising. Thus,
- A. the theory rests on invalid assumptions.
 - B. the theory is not correct.
 - C. the theory needs to be modified to make it more useful to potential home buyers.
 - *D. it is likely that variables other than price were changing in the 1970s.
25. While negotiating with an auto dealer, a potential car buyer says: "I will not pay one penny more than \$10,000 for this station wagon." Assuming she is telling the truth, how much consumer surplus will the customer enjoy if she purchases the car for \$10,000?
- A. \$5000
 - *B. zero
 - C. \$10,000
 - D. \$1000
26. The short-run average cost curve is:
- A. the envelop of the long-run costs curves.
 - B. is initially downward-sloping because of increasing returns to scale.
 - *C. eventually is positively-sloped because of the law of diminishing marginal returns.
 - D. (A) and (B).
 - E. (B) and (C).
27. All of the identities below are true except:
- A. $AVC=ATC-(TFC/Q)$.
 - B. $TC=TFC+Q*AVC$.
 - C. $MC=\Delta TVC/\Delta Q$.
 - *D. $TFC=TVC+TC$.
 - E. $AFC=ATC-AVC$
28. A freeze in Florida is likely to _____ price of orange juice and reduce _____ :
- *A. raise, quantity demanded
 - B. raise, quantity supplied
 - C. lower, demand
 - D. lower, supply
29. You are a small business and this month your TC is 10,000 while your TFC were 4000 and your output is 200. Then your AVC is _____ and your ATC is _____
- A. 50 , 20.
 - *B. 30, 50.
 - C. 50, 30.
 - D. 20, 50.
 - E. insufficient information.

30. You are a small business and you are currently producing 30 picture frames. At this level of output you are operating at the maximum point of your average product curve. We can conclude that:

- A. your marginal product of labor is falling.
- B. you are at the minimum of your AVC curve.
- *C. both (A) and (B).
- D. none of the above.

31. The point of diminishing returns occurs:

- *A. at the maximum of the MP_L .
- B. at the maximum of the AP_L .
- C. at the maximum of the short-run production function.
- D. when the $MP_L=0$.
- E. when the $MP_L=AP_L$.

32. If the MP_L is decreasing then the AP_L is:

- A. increasing.
- B. decreasing.
- C. zero.
- D. negative.
- *E. both (A) and (B) could be correct.

33. Total Variables Costs do not:

- A. vary with output.
- *B. have a cost curve that is a horizontal line at a given cost value.
- C. initially increase at a decreasing rate because of specialization.
- D. eventually increase at an increasing rate because of the law of diminishing marginal returns.
- E. none of the above.

34. If total costs are \$0 when no units of output are produced and \$600 when 1 unit of output is produced, we can say:

- A. fixed costs are zero and the marginal cost of one unit produced is \$0.
- *B. fixed costs are zero and the marginal cost of one unit produced is \$600.
- C. fixed costs are \$600 and the marginal costs of one unit is \$0.
- D. fixed costs are \$600 and the marginal costs of one unit is \$600.
- E. insufficient information to calculate the fixed and marginal costs.

35. AFC is equal to:

- A. TFC/Q .
- B. $ATC - AVC$
- C. $(TC/Q) - (TVC/Q)$
- *D. all of the above.
- E. none of the above

Short Answer:

1. Demand Questions.

A. Define the substitution effect: (17 points)

The substitution effect says always substitute towards the good that has become relatively cheaper. In other words, when the price of a good (P) increase, an individual will substitute away from the good and purchase a lower quantity (Q). Thus, P & Q are inversely related, which supports the Law of Demand ($P \uparrow \rightarrow Q \downarrow$).

B. Define the income effect: (17 points)

The income effect arises because an individual's real income changes when the price level changes. For example, if the price level increases, a person's real income (I) declines. How an individual responds depends on whether the good is normal or inferior. In the good is normal then an individual comes more of the good when their income increases. In other words,

$P \uparrow \rightarrow I \downarrow \rightarrow Q \downarrow$, which satisfies the law of demand.

However, if the good is inferior, then the quantity of the good declines with income. In other words,

$P \uparrow \rightarrow I \downarrow \rightarrow Q \uparrow$, which violates the law of demand.

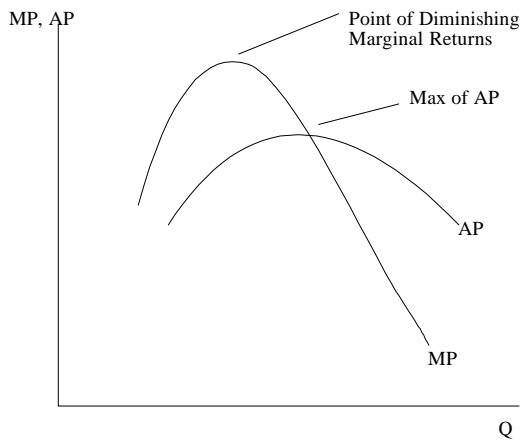
C. Use the concepts of income and substitution effects to describe how a good can be a Giffen good. (21 points)

A Giffen good is a good that violates the law of demand (i.e., $P \uparrow \rightarrow Q \uparrow$). As (A) indicates, the substitution effect always supports the law of demand. However, as (B) indicates, the income effect violates the law of demand if the good inferior. Thus, since the total effect (TE) of a price change is equal to the substitution effect (SE) plus the income effect (IE), a Giffen good occurs when:

$SE (P \uparrow \rightarrow Q \downarrow) < IE (P \uparrow \rightarrow I \downarrow \rightarrow Q \uparrow)$ such that TE is ($P \uparrow \rightarrow Q \uparrow$)

2. Supply Questions.

A. Draw a graph that show the relationship between the MP_L and the AP_L . (17 points)



B. Use your graph in (A) to help explain the why when the $MP_L > AP_L$, the AP_L must be increasing. (21 points)

When the $MP_L > AP_L$ it pulls the average up. For example, suppose that the $AP_L = 10$ when $L = 1$ and suppose that if you add an additional unit of labor the $MP_L = 15$. It follows that the AP_L increases to 12.5. Note, that the MP_L can be declining as long as it is greater than the AP_L . Specifically, if the $MP_L = 13$ for the third unit of labor the AP_L would still increase even though the MP_L has declined.

C. Briefly explain the relationship between the MP_L and the MC. (17 points)

The MP_L and the MC are inversely related to one another. Specifically, when each unit of labor becomes more productive, the cost of producing a unit of output declines. For example, suppose that the wage (W) wage equal to \$5 and that the MP_L for the first unit of labor was 5 and for the second unit of labor was 10. Then cost per unit on the margin for the first unit of labor was \$1, while the per unit cost for the second unit of labor is only \$0.50. In other words, the MP_L of labor increased and the MC declined.