



AP[®] Microeconomics Practice Exam

From the 2012 Administration

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Note: This publication shows the page numbers that appeared in the *2011–12 AP Exam Instructions* book and in the actual exam. This publication was not repaginated to begin with page 1.

Exam Instructions

The following contains instructions taken from
the *2011–12 AP Exam Instructions* book.

AP[®] Microeconomics Exam

Regularly Scheduled Exam Date: Thursday afternoon, May 17, 2012

Late-Testing Exam Date: Wednesday afternoon, May 23, 2012

Section I: At a Glance

Total Time:

1 hour, 10 minutes

Number of Questions:

60

Percent of Total Score:

66.6%

Writing Instrument:

Pencil required

Section II: At a Glance

Total Time:

1 hour

Number of Questions:

3

Percent of Total Score:

33.3%

Writing Instrument:

Pen with black or dark blue ink

Reading Period Time:

10 minutes

Use this time to read the questions and plan your answers.

Writing Period Time:

50 minutes

Question 1**Suggested Time:**

25 minutes

Percent of Section II Score:

50%

Question 2**Suggested Time:**

12.5 minutes

Percent of Section II Score:

25%

Question 3**Suggested Time:**

12.5 minutes

Percent of Section II Score:

25%

Section I: Multiple Choice Booklet Instructions

Section I of this exam contains 60 multiple-choice questions. Fill in only the circles for numbers 1 through 60 on your answer sheet.

Indicate all of your answers to the multiple-choice questions on the answer sheet. No credit will be given for anything written in this exam booklet, but you may use the booklet for notes or scratch work. After you have decided which of the suggested answers is best, completely fill in the corresponding circle on the answer sheet. Give only one answer to each question. If you change an answer, be sure that the previous mark is erased completely.

Use your time effectively, working as quickly as you can without losing accuracy. Do not spend too much time on any one question. Go on to other questions and come back to the ones you have not answered if you have time. It is not expected that everyone will know the answers to all of the multiple-choice questions.

Your total score on the multiple-choice section is based only on the number of questions answered correctly. Points are not deducted for incorrect answers or unanswered questions.

Section II: Free Response Booklet Instructions

The questions for Section II are printed in this booklet. You may use page 3 of this booklet to organize your answers and for scratch work, but you must write your answers on the lined pages provided for each question.

The proctor will announce the beginning and end of the reading period. You are advised to spend the 10-minute period reading all the questions, and to use page 3 to sketch graphs, make notes, and plan your answers. Do NOT begin writing on the lined pages until the proctor tells you to do so.

Write clearly and legibly. Do not skip lines. Cross out any errors you make; crossed-out work will not be scored.

Manage your time carefully. You may proceed freely from one question to the next. You may review your responses if you finish before the end of the exam is announced.

What Proctors Need to Bring to This Exam

- Exam packets
- Answer sheets
- AP Student Packs
- *2011-12 AP Coordinator’s Manual*
- This book — *AP Exam Instructions*
- School Code and Home-School/Self-Study Codes
- Pencil sharpener
- Extra No. 2 pencils with erasers
- Extra pens with black or dark blue ink
- Lined paper
- Stapler
- Watch
- Signs for the door to the testing room
 - “Exam in Progress”
 - “Cell phones are prohibited in the testing room”

SECTION I: Multiple Choice

- **Do not begin the exam instructions below until you have completed the appropriate**
- **General Instructions for your group.**

Make sure you begin the exam at the designated time.

Macroeconomics

If you are giving the regularly scheduled exam, say:

It is Thursday morning, May 17, and you will be taking the AP Macroeconomics Exam.

If you are giving the alternate exam for late testing, say:

It is Wednesday morning, May 23, and you will be taking the AP Macroeconomics Exam.

Microeconomics

If you are giving the regularly scheduled exam, say:

It is Thursday afternoon, May 17, and you will be taking the AP Microeconomics Exam.

If you are giving the alternate exam for late testing, say:

It is Wednesday afternoon, May 23, and you will be taking the AP Microeconomics Exam.

In a moment, you will open the packet that contains your exam materials. By opening this packet, you agree to all of the AP Program’s policies and procedures outlined in the *2011-12 Bulletin for AP Students and Parents*. You may now remove the shrinkwrap from your exam packet and take out

the Section I booklet, but do not open the booklet or the shrinkwrapped Section II materials. Put the white seals aside. . . .

Look at page 1 of your answer sheet and locate the dark blue box near the top right-hand corner that states, "Take the AP Exam label from your Section I booklet and place the label here." . . .

Now look at the front cover of your exam booklet and locate the AP Exam label near the top left of the cover. . . .

Carefully peel off the AP Exam label and place it on your answer sheet on the dark blue box that we just identified. . . .

Now read the statements on the front cover of Section I and look up when you have finished. . . .

Sign your name and write today's date. Look up when you have finished. . . .

Now print your full legal name where indicated. Are there any questions? . . .

Turn to the back cover and read it completely. Look up when you have finished. . . .

Are there any questions? . . .

Section I is the multiple-choice portion of the exam. You may never discuss these specific multiple-choice questions at any time in any form with anyone, including your teacher and other students. If you disclose these questions through any means, your AP Exam score will be canceled. Are there any questions? . . .

You must complete the answer sheet using a No. 2 pencil only. Mark all of your responses on your answer sheet, one response per question. Completely fill in the circles. If you need to erase, do so carefully and completely. No credit will be given for anything written in the exam booklet. Scratch paper is not allowed, but you may use the margins or any blank space in the exam booklet for scratch work. Calculators are not allowed on any part of this exam. Are there any questions? . . .

You have 1 hour and 10 minutes for this section. Open your Section I booklet and begin.



Note Start Time here _____. Note Stop Time here _____. Check that students are marking their answers in pencil on their answer sheets, and that they are not looking at their shrinkwrapped Section II booklets. After 1 hour and 10 minutes, say:

Stop working. Close your booklet and put your answer sheet on your desk, face up. Make sure you have your AP number label and an AP Exam label on page 1 of your answer sheet. I will now collect your answer sheet.

Collect an answer sheet from each student. Check that each answer sheet has an AP number label and an AP Exam label. Then say:

Now you must seal your exam booklet. Remove the white seals from the backing and press one on each area of your exam booklet cover marked “PLACE SEAL HERE.” Fold each seal over the back cover. When you have finished, place the booklet on your desk, face up. I will now collect your Section I booklet. . . .

Check that each student has signed the front cover of the sealed Section I booklet. There is a 10-minute break between Sections I and II. When all Section I materials have been collected and accounted for and you are ready for the break, say:

Please listen carefully to these instructions before we take a 10-minute break. Everything you placed under your chair at the beginning of the exam must stay there. Leave your shrinkwrapped Section II packet on your desk during the break. You are not allowed to consult teachers, other students, or textbooks about the exam during the break. You may not make phone calls, send text messages, check email, use a social networking site, or access any electronic or communication device. Remember, you are not allowed to discuss the multiple-choice section of this exam. Failure to adhere to any of these rules could result in cancellation of your score. Are there any questions? . . .



You may begin your break. Testing will resume at _____.

SECTION II: Free Response

After the break, say:

May I have everyone’s attention? Place your Student Pack on your desk. . . .

You may now remove the shrinkwrap from the Section II packet, but do not open the exam booklet until you are told to do so. . . .

Read the bulleted statements on the front cover of the exam booklet. Look up when you have finished. . . .

Now place an AP number label on the shaded box. If you don’t have any AP number labels, write your AP number in the box. Look up when you have finished. . . .

Read the last statement. . . .

Using your pen, print the first, middle and last initials of your legal name in the boxes and print today’s date where indicated. This constitutes your signature and your agreement to the statements on the front cover. . . .

Turn to the back cover and read Item 1 under “Important Identification Information.” Print the first two letters of your last name and the first letter of your first name in the boxes. Look up when you have finished. . . .

In Item 2, print your date of birth in the boxes. . . .

In Item 3, write the school code you printed on the front of your Student Pack in the boxes. . . .

Read Item 4. . . .

Are there any questions? . . .

I need to collect the Student Pack from anyone who will be taking another AP Exam. You may keep it only if you are not taking any other AP Exams this year. If you have no other AP Exams to take, place your Student Pack under your chair now. . . .

While Student Packs are being collected, read the information on the back cover of the exam booklet. Do not open the booklet until you are told to do so. Look up when you have finished. . . .

Collect the Student Packs. Then say:

Are there any questions? . . .

Section II begins with a 10-minute reading period. During the reading period, you will read and plan what you will write. Are there any questions? . . .

You may now begin the 10-minute reading period.



Note Start Time here _____. Note Stop Time here _____. Check that students are writing any notes in the appropriate areas in the Section II booklet. If any students begin writing their responses during this time, remind them that the reading period is not yet over, and that the reading period is designed to provide students with time to develop better organized, higher scoring responses. If the students choose to continue writing responses, take no further action. After 10 minutes, say:

Stop. The reading period is over. You have 50 minutes to complete Section II. You are responsible for pacing yourself, and may proceed freely from one question to the next. You must write your answers in the Section II booklet using a pen. You are not permitted to use other colored pens or pencils to draw graphs or diagrams. If you need more paper during the exam, raise your hand. At the top of each extra piece of paper you use, be sure to write only your AP number and the number of the question you are working on. Do not write your name. Are there any questions? . . .

You may begin.



Note Start Time here _____. Note Stop Time here _____. Check that students are using pens and that they are writing their answers in their exam booklets. After 40 minutes, say:

There are 10 minutes remaining.

After 10 minutes, say:

Stop working and close your exam booklet. Place it on your desk, face up. . . .

If any students used extra paper for the free-response section, have those students staple the extra sheet/s to the first page corresponding to that question in their exam booklets. Then say:

Remain in your seat, without talking, while the exam materials are collected. . . .

Collect a Section II booklet from each student. Check for the following:

- Exam booklet front cover: The student placed an AP number label on the shaded box, and printed his or her initials and today’s date.
- Exam booklet back cover: The student completed the “Important Identification Information” area.

When all exam materials have been collected and accounted for, return to students any electronic devices you may have collected before the start of the exam.

If you are giving the regularly scheduled exam, say:

You may not discuss these specific free-response questions with anyone unless they are released on the College Board website in about two days. You should receive your score report in the mail about the third week of July.

If you are giving the alternate exam for late testing, say:

None of the questions in this exam may ever be discussed or shared in any way at any time. You should receive your score report in the mail about the third week of July.

If any students completed the AP number card at the beginning of this exam, say:

Please remember to take your AP number card with you.

Then say:

You are now dismissed.

All exam materials should be put in secure storage until they are returned to the AP Program after your school’s last administration. Before storing materials, check the “School Use Only” section on page 1 of the answer sheet and:

- Fill in the appropriate section number circle in order to view a separate AP Instructional Planning Report (for regularly scheduled exams only) or Subject Score Roster at the class section or teacher level. See “Post-Exam Activities” in the *2011-12 AP Coordinator’s Manual*.
- Check your list of students who are eligible for fee reductions and fill in the appropriate circle on their registration answer sheets.

GO ON TO THE NEXT PAGE.

Student Answer Sheet for the Multiple-Choice Section

Use this section to capture student responses. (Note that the following answer sheet is a sample, and may differ from one used in an actual exam.)

Be sure each mark is dark and completely fills the circle. If a question has only four answer options, do not mark option E.

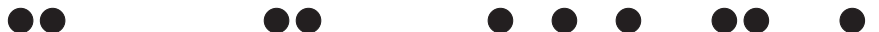
- 76 (A) (B) (C) (D) (E)
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- 118 (A) (B) (C) (D) (E)
- 119 (A) (B) (C) (D) (E)
- 120 (A) (B) (C) (D) (E)



DO NOT WRITE IN THIS AREA



GO ON TO THE NEXT PAGE.

Section I: Multiple-Choice Questions

This is the multiple-choice section of the 2012 AP exam. It includes cover material and other administrative instructions to help familiarize students with the mechanics of the exam. (Note that future exams may differ in look from the following content.)

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AP[®] Microeconomics Exam

SECTION I: Multiple Choice

2012

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

At a Glance

Total Time
1 hour, 10 minutes

Number of Questions
60

Percent of Total Score
66.6%

Writing Instrument
Pencil required

Instructions

Section I of this exam contains 60 multiple-choice questions. Fill in only the circles for numbers 1 through 60 on your answer sheet.

Indicate all of your answers to the multiple-choice questions on the answer sheet. No credit will be given for anything written in this exam booklet, but you may use the booklet for notes or scratch work. After you have decided which of the suggested answers is best, completely fill in the corresponding circle on the answer sheet. Give only one answer to each question. If you change an answer, be sure that the previous mark is erased completely. Here is a sample question and answer.

Sample Question Sample Answer

Chicago is a (A) ● (C) (D) (E)

(A) state

(B) city

(C) country

(D) continent

(E) village

Use your time effectively, working as quickly as you can without losing accuracy. Do not spend too much time on any one question. Go on to other questions and come back to the ones you have not answered if you have time. It is not expected that everyone will know the answers to all of the multiple-choice questions.

Your total score on the multiple-choice section is based only on the number of questions answered correctly. Points are not deducted for incorrect answers or unanswered questions.

PLACE SEAL HERE



Minimum 20% post-consumer waste

PLACE SEAL HERE

DO NOT seal answer sheet inside

Form I
Form Code 4IBP4-S

34

The inclusion of source material in this exam is not intended as an endorsement by the College Board or ETS of the content, ideas, or values expressed in the material. The material has been selected by the economics faculty who serve on the AP Microeconomics Development Committee. In their judgment, the material printed here reflects various aspects of the course of study on which this exam is based and is therefore appropriate to use to measure the skills and knowledge of this course.

MICROECONOMICS

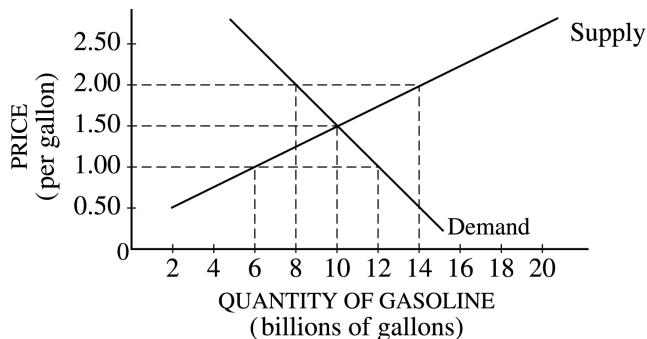
Section I

Time—70 minutes

60 Questions

Directions: Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the one that is best in each case and then fill in the corresponding circle on the answer sheet.

- Which of the following best defines opportunity cost?
 - It is the cost of producing those goods most desired by a given economy.
 - It is the cost of the input mix that will lead to the greatest rate of growth for a given company.
 - It is the amount of one product that must be given up in order to produce an additional unit of another product.
 - It is the use of the least-cost method of production.
 - It is the cost of labor used in the production process.
- Which of the following explains why a production possibilities curve is often represented as concave (bowed out) from the origin?
 - The law of demand
 - The law of supply
 - Constant returns to scale
 - Decreasing opportunity cost
 - Increasing opportunity cost
- Assume that consumers consider popcorn and pretzels to be substitutes. A significant decrease in the supply of popcorn will affect the pretzel market by
 - increasing the demand for pretzels and therefore the supply of pretzels
 - increasing the demand for pretzels and therefore the price of pretzels
 - decreasing the demand for pretzels and therefore the price of pretzels
 - increasing the supply of pretzels and therefore the price of pretzels
 - decreasing the supply of pretzels and therefore the price of pretzels



4. In the market depicted in the diagram above, if the government imposes a price ceiling of \$1.00 per gallon on gasoline, which of the following will result?

- (A) A surplus of 6 billion gallons
- (B) A shortage of 6 billion gallons
- (C) A surplus of 12 billion gallons
- (D) A shortage of 12 billion gallons
- (E) Neither a surplus nor a shortage, because the price ceiling would not be effective

5. Assume that Clark spends his entire income on the purchase of two goods, X and Y. If his income and the prices of good X and Y all double, Clark will

- (A) double the purchase of goods X and Y
- (B) buy more of good X and less of good Y
- (C) buy less of good X and more of good Y
- (D) buy less of both goods X and Y
- (E) buy the same amounts of goods X and Y

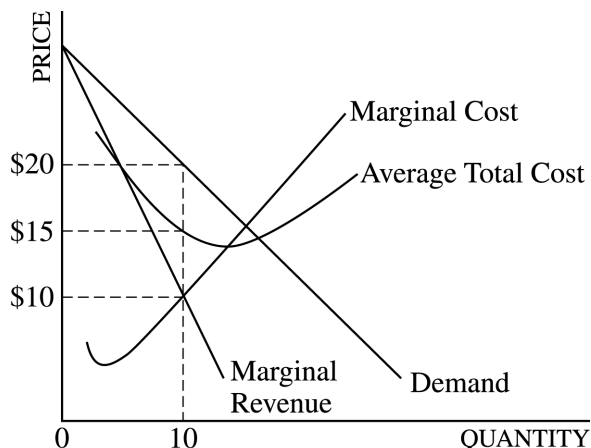
6. Suppose that a firm begins to hire workers for a newly completed plant with a fixed amount of machinery. As the firm hires additional workers, one would expect the marginal product to

- (A) fall initially, but eventually rise
- (B) rise initially, but eventually fall
- (C) rise consistently due to diminishing return
- (D) rise consistently due to the advantages of specialization
- (E) rise consistently due to economies of scale

7. In the short run, which of the following costs must continuously decrease as output produced increases?

- (A) Total variable cost
- (B) Total fixed cost
- (C) Average variable cost
- (D) Average fixed cost
- (E) Average total cost

Questions 8-9 refer to the graph below.



8. If the firm produces 10 units of output, its economic profits will equal

- (A) 0
- (B) \$50
- (C) \$100
- (D) \$150
- (E) \$200

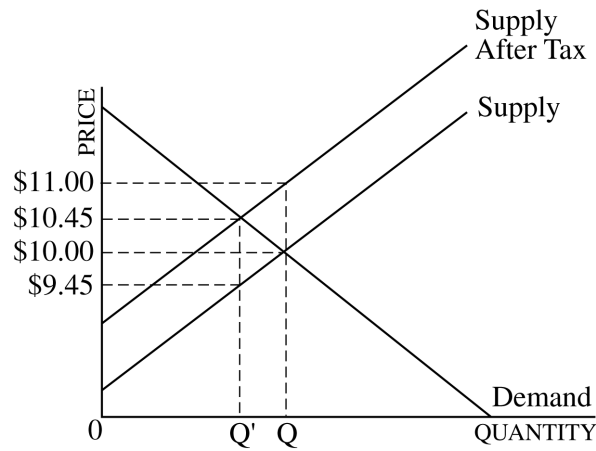
9. Which of the following is most likely to occur if the firm increases production beyond 10 units?

- (A) Consumers would be willing to purchase more than 10 units at the price of \$20 per unit.
- (B) The firm would definitely experience a loss.
- (C) The firm would have to lower its price to sell more than 10 units.
- (D) The firm's average cost of production would initially increase.
- (E) The firm's profits would increase.

10. Which of the following statements about a constant-cost perfectly competitive industry in long-run equilibrium must be true?
- (A) An increase in demand will cause no change in the long-run equilibrium price.
 (B) An increase in demand will cause no change in the long-run equilibrium quantity.
 (C) The long-run supply curve is upward sloping.
 (D) The long-run supply curve is perfectly inelastic.
 (E) The total cost of production remains the same as output increases.
11. In which of the following market structures do firms recognize their mutual interdependence?
- (A) Oligopoly
 (B) Monopoly
 (C) Perfect competition
 (D) Unregulated natural monopoly
 (E) Monopsony
12. Assume that a profit-maximizing firm is perfectly competitive in both the output and the factor markets and is at its long-run equilibrium. The firm's output is 100 units, its total revenue is \$600.00, and the fixed cost of production is \$50.00. Based on this information, which of the following is true for the firm?
- (A) Its marginal cost is \$5.50, and its average total cost is \$5.50.
 (B) Its marginal cost is \$5.50, and its average variable cost is \$5.50.
 (C) Its marginal cost is \$6.00, and its average total cost is \$5.50.
 (D) Its marginal cost is \$6.00, and its average fixed cost is \$5.50.
 (E) Its marginal cost is \$6.00, and its average variable cost is \$5.50.
13. Businesses employ workers from city neighborhoods and rural areas. These workers are perfect substitutes and cannot relocate in the short run. The government offers businesses a wage subsidy if they hire workers from city neighborhoods. What is the effect of the subsidy on the wage rate of rural workers and on the total hours they work?
- | <u>Wage Rate of
Rural Workers</u> | <u>Total Hours Worked
by Rural Workers</u> |
|---------------------------------------|--|
| (A) Increase | Decrease |
| (B) No change | Increase |
| (C) No change | Decrease |
| (D) Decrease | Decrease |
| (E) Decrease | No change |
14. A per-unit tax on pollution produced by a firm will affect the firm's output and pollution levels in which of the following ways?
- | <u>Output</u> | <u>Pollution</u> |
|---------------|------------------|
| (A) Increase | Increase |
| (B) Increase | Decrease |
| (C) Decrease | Increase |
| (D) Decrease | Decrease |
| (E) No change | No change |
15. Which of the following will most likely lead to a more equal distribution of income?
- (A) More regressive national sales tax
 (B) More progressive income taxes
 (C) An increase in the high school dropout rate
 (D) An increase in structural unemployment
 (E) An increase in earnings for owners of capital

16. Assume both Italy and Greece produce only two goods: wine and olive oil. If Italy holds a comparative advantage in the production of wine, then which of the following statements is NOT true?
- (A) Italy must hold an absolute advantage in the production of wine.
 - (B) Greece holds a comparative advantage in the production of olive oil.
 - (C) Italy's opportunity cost of producing one additional unit of wine is lower than Greece's.
 - (D) Greece's opportunity cost of producing one additional unit of olive oil is lower than Italy's.
 - (E) If trade is open between them, these countries have an incentive to trade.
17. Following a prolonged power outage, the price of flashlights normally increases significantly. If cities had passed laws prohibiting price increases for flashlights, during power outages such laws would most likely
- (A) make flashlights more available
 - (B) create a shortage of flashlights
 - (C) shift the demand curve for flashlights to the right
 - (D) shift the supply curve for flashlights to the left
 - (E) have no effect on the availability of flashlights

Questions 18-19 are based on the diagram below, which shows the effect of a unit tax placed on a good.



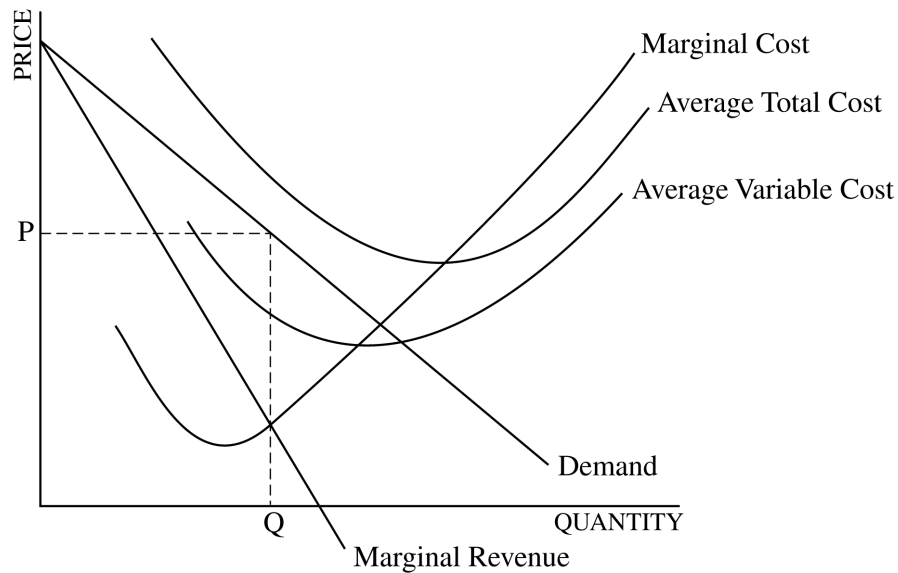
18. What is the price paid by consumers and the net price received by producers after the tax is paid?

	<u>Paid by Consumers</u>	<u>Received by Producers</u>
(A)	\$11.00	\$10.45
(B)	\$11.00	\$10.00
(C)	\$10.45	\$10.00
(D)	\$10.45	\$9.45
(E)	\$10.00	\$9.45

19. According to the diagram, what is the dollar amount of the unit tax?

- (A) \$0.00
- (B) \$0.45
- (C) \$0.55
- (D) \$1.00
- (E) \$1.45

20. According to the law of diminishing marginal utility, which of the following is true?
- (A) Total satisfaction decreases as more units of a good are consumed.
 - (B) The additional satisfaction received from consuming extra units of a good decreases as consumption of the good increases.
 - (C) The additional satisfaction received from consuming extra units of a good decreases as consumption of the good decreases.
 - (D) The additional satisfaction received from consuming extra units of a good increases as consumption of the good increases.
 - (E) When marginal utility is decreasing, total utility is decreasing.
21. Within the range of market demand, which of the following is consistent with the conditions of a natural monopoly?
- (A) Long-run total cost decreases as output increases.
 - (B) Long-run average total cost remains constant as output increases.
 - (C) Long-run average total cost decreases as output increases.
 - (D) Marginal cost exceeds average cost.
 - (E) Setting price equal to marginal cost will maximize profits.
22. A farmer grows wheat using two inputs: labor and land whose prices are constant. If she doubles her inputs, she finds that the quantity of wheat produced more than doubles. Therefore, it must be true that in this output range her long-run average total cost curve is
- (A) upward sloping
 - (B) downward sloping
 - (C) horizontal
 - (D) vertical
 - (E) U-shaped
23. A constant-cost, perfectly competitive gadget industry is in long-run equilibrium. An increase in the number of consumers of gadgets will most likely result in
- (A) higher short-run and long-run prices for gadgets
 - (B) reduced short-run profits, followed by the exit of some firms
 - (C) an upward shift in all short-run cost curves, followed by a higher long-run price for gadgets
 - (D) a higher short-run price for gadgets, followed by an increase in the quantity produced
 - (E) a decrease in the demand for gadgets, followed by a decrease in the supply of gadgets



24. The profit-maximizing firm depicted in the graph above should
- (A) exit if conditions do not improve in the long run
 - (B) produce the output that minimizes average total cost
 - (C) increase price to maximize profits
 - (D) increase output to maximize profits
 - (E) use less capital and more labor to reduce cost
25. If the average variable cost of producing 5 units of a good is \$100 and the average variable cost of producing 6 units is \$150, then the marginal cost of increasing output from 5 to 6 units is
- (A) \$50
 - (B) \$250
 - (C) \$300
 - (D) \$400
 - (E) \$500

Questions 26-27 are based on the following table, which shows the relationship between the number of workers and coal output (in tons per day).

Number of Workers	Total Output of Coal
0	0
1	25
2	44
3	60
4	70
5	75

26. How many workers would the coal company want to hire if the price of coal were competitively priced at \$5 per ton and the wage rate were \$40 per day?
- (A) 5
(B) 4
(C) 3
(D) 2
(E) 0
27. The marginal physical product of the second worker is
- (A) 19
(B) 22
(C) 25
(D) 44
(E) 75

28. Instead of being employed at a printing company at a salary of \$25,000 per year, Sally starts her own printing firm. Rather than renting a building that she owns to someone else for \$10,000 per year, she uses it as the location for her company. Her costs for workers, materials, advertising, and energy during her first year are \$125,000. If the total revenue from her printing company is \$155,000, her total economic profit is
- (A) -\$5,000
(B) \$5,000
(C) \$20,000
(D) \$30,000
(E) \$120,000
29. If the production of a good generates a positive externality, the government can increase allocative efficiency by
- (A) taxing the producer of the good
(B) subsidizing the producer of the good
(C) prosecuting firms that produce the good without proper permits
(D) setting a price ceiling to encourage production of the good
(E) setting a price floor to discourage production of the good
30. Which of the following is the best example of a pure public good?
- (A) Electricity from a public utility
(B) Mail delivery service by the post office
(C) Social Security payments
(D) National defense
(E) Imported oil

UNITS OF MANUFACTURED GOODS AND
SERVICE GOODS PRODUCED USING
ONE HOUR OF LABOR

Country	Manufactured Goods	Service Goods
A	100 units	300 units
B	75 units	150 units

31. According to the information in the table above, which of the following statements is true if both countries have the same number of workers?
- (A) Country A has both an absolute and a comparative advantage in manufactured goods.
 - (B) Country A has an absolute advantage in manufactured goods but a comparative advantage in service goods.
 - (C) Country B has a comparative advantage in service goods but no absolute advantage in either good.
 - (D) Country A has an absolute advantage in service goods but a comparative advantage in manufactured goods.
 - (E) Country B has an absolute advantage in manufactured goods, but without more information, it is not possible to tell in which product it has a comparative advantage.
32. Which of the following would most likely result in a decrease in the equilibrium price of oranges?
- (A) The weather during this orange-growing season is not as good as it was last year.
 - (B) The price of apples, a substitute for oranges, is higher this year than last year.
 - (C) New studies suggest that oranges contain traces of cancer-causing substances due to pesticide residue.
 - (D) A tree-killing fungus spreads through orange orchards across the country.
 - (E) Firms in the orange industry launch an effective advertising campaign.
33. If a severe drought destroys a significant portion of the peanut crop and peanut farmers' revenues increase, which of the following is true over the observed range of prices?
- (A) The demand for peanuts must be unit price elastic.
 - (B) The demand for peanuts must be price elastic.
 - (C) The demand for peanuts must be price inelastic.
 - (D) The supply of peanuts must be price inelastic.
 - (E) The supply of peanuts must be price elastic.
34. Promoters of a rock group know that if they charged \$8 a ticket, 400 people would buy tickets for a concert, and if they charged \$4 a ticket, 800 people would buy tickets. Over this price range, the demand for the concert tickets for the rock group is
- (A) elastic
 - (B) inelastic
 - (C) unit elastic
 - (D) perfectly elastic
 - (E) perfectly inelastic

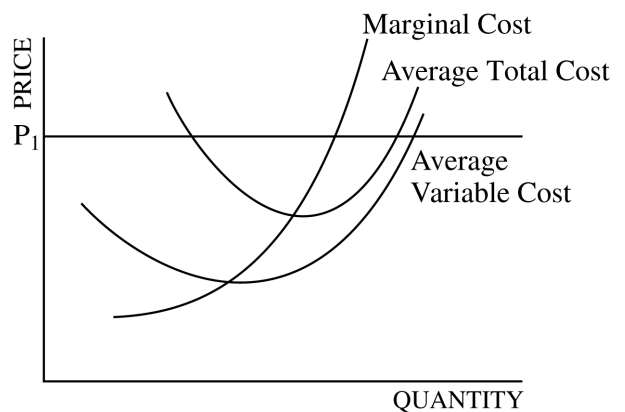
35. Assume that people like onions on their hamburgers. If the supply of hamburgers decreases, the demand for onions will most likely
- (A) remain unchanged because hamburgers and onions are different goods
 - (B) increase because hamburgers and onions are substitutes
 - (C) increase because hamburgers and onions are complements
 - (D) decrease because hamburgers and onions are complements
 - (E) decrease because hamburgers and onions are substitutes

36. If labor is the only variable input in the production process, the short-run marginal cost curve is upward sloping because which of the following occurs as more and more labor is added?

- (A) Output decreases, and thus marginal cost increases.
- (B) Output increases, and thus marginal cost increases.
- (C) Output increases at an increasing rate, and thus the cost of producing each additional unit of output increases.
- (D) Output increases at a decreasing rate, and thus the cost of producing each additional unit of output increases.
- (E) Output increases at a decreasing rate, and thus the cost of producing each additional unit of output decreases.

37. At a firm's current rate of output, the marginal cost is \$65, the average variable cost is \$35, the average fixed cost is \$30, and the product price is \$65. Which of the following statements is true for the firm?

- (A) Economic profits are zero because marginal revenue equals marginal cost.
- (B) Economic profits are negative because total revenue is less than total cost.
- (C) Economic profits are positive because total revenue is greater than total cost.
- (D) Economic profits are negative because price is greater than average variable cost.
- (E) Economic profits are zero because price equals average total cost.



38. The graph above shows the short-run cost curves of a firm in a perfectly competitive market. Which of the following are true at the firm's profit-maximizing output level?

- I. Price exceeds average total cost.
- II. Economic profits are zero.
- III. Marginal cost equals average total cost.
- IV. New firms are likely to enter the market in the long run.

- (A) I and II only
- (B) I and III only
- (C) I and IV only
- (D) II, III, and IV only
- (E) I, II, III, and IV

39. Which of the following best describes an oligopolistic market?
- (A) Many sellers with identical products and no barriers to entry
 - (B) Many sellers, each with a clearly differentiated product, and no barriers to entry
 - (C) A few competing sellers with similar products and high barriers to entry
 - (D) A few competing sellers of identical products and no barriers to entry
 - (E) No competition among sellers and high barriers to entry

40. The payoff matrix below shows the per-unit profits associated with the production strategies of two utility companies, UA and UB. Each firm has two choices: to reduce production by 10 percent or by 20 percent. The first entry in each cell indicates the profits to UA, and the second, the profits to UB.

		UB	
		Reduces Production by 20 Percent	Reduces Production by 10 Percent
UA	Reduces Production by 20 Percent	\$150, \$150	\$50, \$250
	Reduces Production by 10 Percent	\$250, \$50	\$100, \$100

Based on the information, and assuming no cooperation, which of the following statements is true?

- (A) Neither company has a dominant strategy.
- (B) Both companies have an incentive to reduce production by 10%.
- (C) Both companies have an incentive to reduce production by 20%.
- (D) Only UA has an incentive to reduce production by 20%.
- (E) Only UB has an incentive to reduce production by 20%.

41. In order to minimize short-run losses, a profit-maximizing firm will necessarily shut down production under which of the following conditions?
- (A) Total revenue is less than total cost.
 - (B) Marginal cost is greater than average total cost.
 - (C) Marginal cost is less than marginal revenue.
 - (D) Average revenue is less than average variable cost.
 - (E) Average revenue is less than average total cost.
42. An increase in the effective minimum wage will have less of an impact on employment if the demand for labor is
- (A) a derived demand
 - (B) decreasing
 - (C) relatively elastic
 - (D) relatively inelastic
 - (E) unit elastic
43. If a firm employs only labor and capital in its production process, which of the following best describes the optimal combination of inputs for the firm in the long run?
- (A) The marginal product per dollar spent on labor is equal to the marginal product per dollar spent on capital.
 - (B) The marginal product of labor is equal to the marginal product of capital.
 - (C) The total product of labor is equal to the total product of capital.
 - (D) The marginal product of labor and capital are both zero.
 - (E) All marginal products are equal to all average products.
44. Most economists argue that a monopoly is inefficient because it
- (A) has no incentive to minimize its costs
 - (B) produces too little output and sets a price above marginal cost
 - (C) earns too much profit by charging consumers any price it wants
 - (D) produces too much output and thus wastes scarce resources
 - (E) usually produces unsafe products if not regulated by government

PERCENTAGE OF INCOME RECEIVED, 2010

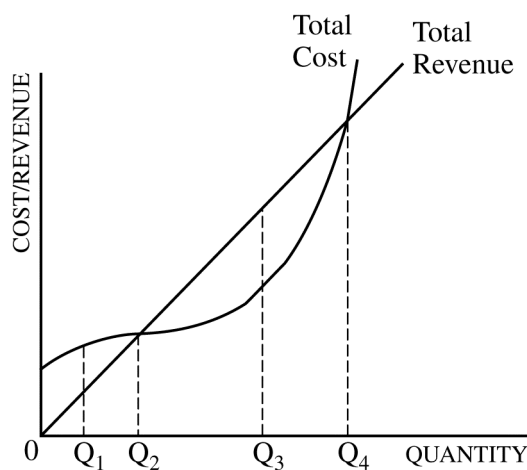
Quintile	Before Taxes and Transfers	After Taxes and Transfers
Lowest 20 percent	1.1	5.1
Second 20 percent	7.9	11.1
Third 20 percent	15.5	16.5
Fourth 20 percent	24.7	23.8
Highest 20 percent	50.7	43.5

45. The table above shows the distribution of income in Country X in 2010 before and after taxes and transfer payments. Which of the following can be concluded about the effect of the government's tax and transfer policies on income distribution in Country X?

- (A) The distribution of income is significantly less equal after accounting for the impact of government policies.
- (B) The distribution of income is about the same after accounting for the impact of government policies.
- (C) The largest gainers from government policies are the third and fourth quintile groups.
- (D) The only quintile to benefit from government policies is the lowest quintile.
- (E) The major transfer of income is from the highest quintile to the two lowest quintiles.

46. After graduating from high school, Peggy Smith decided to enroll in a two-year program at the local community college rather than to accept a job that offered a salary of \$12,000 per year. If the annual tuition and fees are \$4,600, the annual opportunity cost of attending the community college is
- (A) \$4,600
 (B) \$7,400
 (C) \$12,000
 (D) \$16,600
 (E) \$24,000
47. In which of the following situations is a good NOT scarce?
- (A) Consumers give up nothing to obtain more of the good.
 (B) Consumers can purchase as much of the good as they want at its current market price.
 (C) Large quantities of the good are available in the marketplace.
 (D) There is a surplus of the good at some positive price.
 (E) There is a shortage of the good at some positive price.
48. Suppose that the market supply curve for shoes is upward sloping and the market demand curve is downward sloping. How will the imposition of a sales tax on shoes affect the consumer surplus, the producer surplus, and the total surplus?
- | | Consumer
<u>Surplus</u> | Producer
<u>Surplus</u> | Total
<u>Surplus</u> |
|-----|----------------------------|----------------------------|-------------------------|
| (A) | Decrease | Decrease | Decrease |
| (B) | Decrease | Increase | Increase |
| (C) | Decrease | Increase | Decrease |
| (D) | Increase | Decrease | Decrease |
| (E) | Increase | Increase | Increase |
49. At her current level of consumption, a consumer is willing to pay up to \$1.50 for a bottle of water and up to \$1,500 for a diamond ring because the
- (A) total utility of diamond rings is greater than the total utility of water
 (B) total utility of water is less than the marginal utility of a diamond ring
 (C) marginal utility of a bottle of water is less than the marginal utility of a diamond ring
 (D) marginal utility of a bottle of water is greater than the marginal utility of a diamond ring
 (E) consumer is irrational and does not understand that water is more important than a diamond
50. If a firm's production process exhibits economies of scale, which of the following will occur when the firm's output increases?
- (A) Its short-run average total costs will rise.
 (B) Its long-run average total costs will rise.
 (C) Its long-run average total costs will fall.
 (D) Its short-run total costs will fall.
 (E) Its long-run total costs will fall.

51. Which of the following helps explain why the demand curve for a normal good is downward sloping?
- (A) The income and substitution effects move the quantity demanded in the same direction.
 - (B) The income effect moves the quantity demanded in the opposite direction of the substitution effect.
 - (C) The income effect dominates the substitution effect.
 - (D) The substitution effect dominates the income effect.
 - (E) With an increase in income, the consumer decreases consumption of the good.



52. The graph above shows the total revenue and total cost curves for a firm in which type of market structure and what is the profit-maximizing quantity?

<u>Market Structure</u>	<u>Quantity</u>
(A) Monopoly	Q ₂
(B) Monopoly	Q ₃
(C) Perfect Competition	Q ₁
(D) Perfect Competition	Q ₃
(E) Perfect Competition	Q ₄

53. If total revenue is increasing as output increases, marginal revenue is always
- (A) equal to average revenue
 - (B) less than average revenue
 - (C) increasing
 - (D) decreasing
 - (E) greater than zero
54. Let P = price, MR = marginal revenue, MC = marginal cost, and ATC = average total cost. In monopolistic competition, which of the following most accurately describes the long-run equilibrium conditions for a firm?
- (A) $P > ATC$, $MR = MC$, and $P > MC$
 - (B) $P > ATC$, $MR > MC$, and $P = MC$
 - (C) $P = ATC$, $MR = MC$, and $P > MC$
 - (D) $P = ATC$, $MR = MC$, and $P = MC$
 - (E) $P = ATC$, $MR > MC$, and $P > MC$
55. In a perfectly competitive free market economy, a wage gap between two workers can be explained by differences in all of the following EXCEPT their
- (A) years of schooling
 - (B) occupations
 - (C) marginal products
 - (D) marginal revenue products
 - (E) tastes for luxury goods

56. Firm XYZ produces and sells corn in a perfectly competitive market and hires its workers in a perfectly competitive labor market. Which of the following best describes the demand curve for XYZ's corn and XYZ's demand curve for labor?

<u>Demand for XYZ's Corn</u>	<u>XYZ's Labor Demand</u>
(A) Horizontal	Horizontal
(B) Horizontal	Downward sloping
(C) Horizontal	Vertical
(D) Downward sloping	Downward sloping
(E) Downward sloping	Horizontal

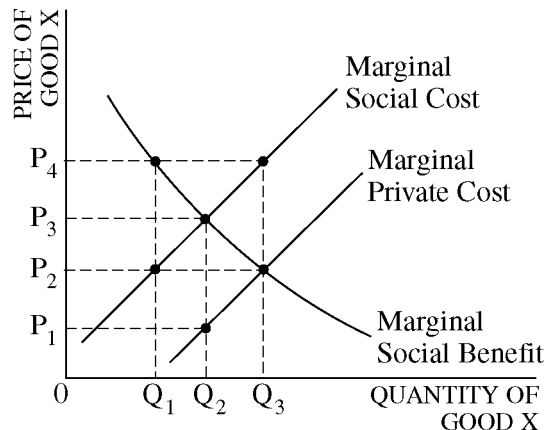
57. A monopolistically competitive firm advertises in order to

- (A) shift the demand curve for its product to the left
- (B) make the demand for its product less price elastic
- (C) make its product more similar to its competitors'
- (D) increase its positive externalities
- (E) reduce the industry's barriers to entry

58. A profit-maximizing firm should hire an input up to the point at which

- (A) marginal physical product equals marginal revenue product
- (B) marginal revenue equals marginal factor cost
- (C) marginal revenue product equals marginal revenue
- (D) marginal revenue product equals marginal factor cost
- (E) marginal physical product equals marginal factor cost

Questions 59-60 refer to the diagram below, which shows a market's cost and revenue curves.



59. The socially optimal quantity and the per-unit tax that will achieve the socially optimal quantity are which of the following?

<u>Socially Optimal Quantity</u>	<u>Per-Unit Tax</u>
(A) Q_1	$P_4 - P_2$
(B) Q_2	$P_3 - P_2$
(C) Q_3	$P_4 - P_2$
(D) Q_2	$P_3 - P_1$
(E) Q_3	$P_3 - P_2$

60. Given the position of the marginal social cost curve, one can conclude that the

- (A) private cost of producing good X exceeds the social cost of production at all levels of output
- (B) production of good X creates a negative externality
- (C) production of good X occurs in an imperfectly competitive market
- (D) market quantity, Q_3 , is the socially optimal quantity
- (E) free market will produce too little of good X

END OF SECTION I

**IF YOU FINISH BEFORE TIME IS CALLED, YOU MAY
CHECK YOUR WORK ON THIS SECTION.**

DO NOT GO ON TO SECTION II UNTIL YOU ARE TOLD TO DO SO.

MAKE SURE YOU HAVE DONE THE FOLLOWING.

- **PLACED YOUR AP NUMBER LABEL ON YOUR ANSWER SHEET**
- **WRITTEN AND GRIDDED YOUR AP NUMBER CORRECTLY ON YOUR ANSWER SHEET**
- **TAKEN THE AP EXAM LABEL FROM THE FRONT OF THIS BOOKLET AND PLACED IT ON YOUR ANSWER SHEET**

Section II: Free-Response Questions

This is the free-response section of the 2012 AP exam. It includes cover material and other administrative instructions to help familiarize students with the mechanics of the exam. (Note that future exams may differ in look from the following content.)

AP[®] Microeconomics Exam

SECTION II: Free Response

2012

DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

At a Glance

Total Time

1 hour

Number of Questions

3

Percent of Total Score

33.3%

Writing Instrument

Pen with black or dark blue ink

Reading Period

Time

10 minutes. Use this time to read the questions and plan your answers.

Writing Period

Time

50 minutes

Question 1

Suggested Time

25 minutes

Percent of Section II Score

50%

Question 2

Suggested Time

12.5 minutes

Percent of Section II Score

25%

Question 3

Suggested Time

12.5 minutes

Percent of Section II Score

25%

IMPORTANT Identification Information

PLEASE PRINT WITH PEN:

1. First two letters of your last name

First letter of your first name

2. Date of birth

Month Day Year

3. Six-digit school code

4. Unless I check the box below, I grant the College Board the unlimited right to use, reproduce, and publish my free-response materials, both written and oral, for educational research and instructional purposes. My name and the name of my school will not be used in any way in connection with my free-response materials. I understand that I am free to mark "No" with no effect on my score or its reporting.

No, I do not grant the College Board these rights.

Instructions

The questions for Section II are printed in this booklet. You may use page 3 of this booklet to organize your answers and for scratch work, but you must write your answers on the lined pages provided for each question.

The proctor will announce the beginning and end of the reading period. You are advised to spend the 10-minute period reading all the questions, and to use page 3 to sketch graphs, make notes, and plan your answers. Do NOT begin writing on the lined pages until the proctor tells you to do so.

Write clearly and legibly. Do not skip lines. Cross out any errors you make; crossed-out work will not be scored.

Manage your time carefully. You may proceed freely from one question to the next. You may review your responses if you finish before the end of the exam is announced.



Minimum 20% post-consumer waste

Form I
Form Code 4IBP-S2

34

**SECTION II BEGINS ON PAGE 4.
USE THE SPACE BELOW TO PLAN YOUR ANSWERS TO THE FREE-RESPONSE
QUESTIONS.**

MICROECONOMICS

Section II

Planning time—10 minutes

Writing time—50 minutes

Directions: You have 10 minutes to read all of the questions in this booklet, to sketch graphs, to make notes, and to plan your answers. You will then have 50 minutes to answer all three of the following questions. It is suggested that you spend approximately half your time on the first question and divide the remaining time equally between the next two questions. In answering the questions, you should emphasize the line of reasoning that generated your results; it is not enough to list the results of your analysis. Include correctly labeled diagrams, if useful or required, in explaining your answers. A correctly labeled diagram must have all axes and curves clearly labeled and must show directional changes. Use a pen with black or dark blue ink.

1. Steverail, the only provider of train service operating between two cities, is currently incurring economic losses.
 - (a) Using a correctly labeled graph, show each of the following.
 - (i) Steverail’s loss-minimizing price and quantity, labeled P_m and Q_m , respectively
 - (ii) The area of economic losses, shaded completely
 - (iii) The allocatively efficient quantity, labeled Q_e
 - (b) If Steverail raised the price above P_m identified in part (a)(i), would total revenue increase, decrease, or not change? Explain.
 - (c) Assume a per-unit subsidy is provided to Steverail.
 - (i) Will Steverail’s quantity increase, decrease, or not change? Explain.
 - (ii) Will consumer surplus increase, decrease, or not change?
 - (d) Assume instead that a lump-sum subsidy is provided to Steverail. For the short run, answer the following.
 - (i) Will the deadweight loss increase, decrease, or not change? Explain.
 - (ii) Will Steverail’s economic losses increase, decrease, or not change?

Question 1 is reprinted for your convenience.

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 - (i) Will the deadweight loss increase, decrease, or not change? Explain.
 - (ii) Will Steverail’s economic losses increase, decrease, or not change?

2. Theresa consumes both bagels and toy cars.

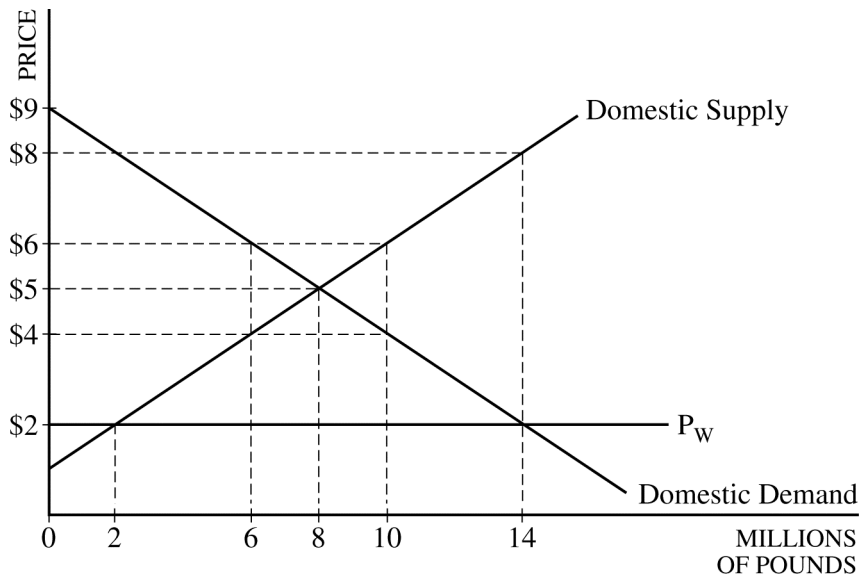
Quantity of Bagels	Marginal Utility from Bagels (utils)	Quantity of Toy Cars	Marginal Utility from Toy Cars (utils)
1	8	1	10
2	7	2	8
3	6	3	6
4	5	4	4
5	4	5	3
6	3	6	2

- (a) The table above shows Theresa’s marginal utility from bagels and toy cars.
 - (i) What is her total utility from purchasing three toy cars?
 - (ii) Theresa’s weekly income is \$11, the price of a bagel is \$2, and the price of a toy car is \$1. What quantity of bagels and toy cars will maximize Theresa’s utility if she spends her entire weekly income on bagels and toy cars? Explain your answer using marginal analysis.
- (b) Assume that the price of wheat, an input for the production of bagels, increases. Will Theresa’s demand for bagels increase, decrease, or not change? Explain.
- (c) Suppose that Theresa’s income elasticity for bagels is -0.2 . Does the value of Theresa’s income elasticity indicate that bagels are normal goods, inferior goods, substitutes, or complements?
- (d) Suppose that when the price of toy cars increases by 10 percent, Theresa buys 5 percent fewer toy cars and 4 percent less of a different toy, blocks. Calculate the cross-price elasticity for toy cars and blocks and indicate if it is positive or negative.

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GO ON TO THE NEXT PAGE.

3. Sugar is freely traded in the world market. Assume that a country, Loriland, is a price taker in the world market for sugar. Some of the sugar consumed in Loriland is produced domestically while the rest is imported. The world price of sugar is \$2 per pound. The graph below shows Loriland's sugar market, and P_W represents the world price.



- (a) At the world price of \$2 per pound, how much sugar is Loriland importing?
- (b) Suppose that Loriland imposes a per-unit tariff on sugar imports and the new domestic price including the tariff is \$4.
- (i) Identify the new level of domestic production.
- (ii) Calculate the domestic consumer surplus for Loriland. You must show your work.
- (iii) Calculate the total tariff revenue collected by the government. You must show your work.
- (c) Given the world price of \$2, what per-unit tariff maximizes the sum of Loriland's domestic consumer surplus and producer surplus?

STOP

END OF EXAM

THE FOLLOWING INSTRUCTIONS APPLY TO THE COVERS OF THE SECTION II BOOKLET.

- **MAKE SURE YOU HAVE COMPLETED THE IDENTIFICATION INFORMATION AS REQUESTED ON THE FRONT AND BACK COVERS OF THE SECTION II BOOKLET.**
- **CHECK TO SEE THAT YOUR AP NUMBER LABEL APPEARS IN THE BOX(ES) ON THE COVER(S).**
- **MAKE SURE YOU HAVE USED THE SAME SET OF AP NUMBER LABELS ON ALL AP EXAMS YOU HAVE TAKEN THIS YEAR.**

Multiple-Choice Answer Key

The following contains the answers to the multiple-choice questions in this exam.

**Answer Key for AP Microeconomics
Practice Exam, Section I**

Multiple-Choice Questions	
Question #	Key
1	C
2	E
3	B
4	B
5	E
6	B
7	D
8	B
9	C
10	A
11	A
12	E
13	D
14	D
15	B
16	A
17	B
18	D
19	D
20	B
21	C
22	B
23	D
24	A
25	D
26	B
27	A
28	A
29	B

30	D
31	B
32	C
33	C
34	C
35	D
36	D
37	E
38	C
39	C
40	B
41	D
42	D
43	A
44	B
45	E
46	D
47	A
48	A
49	C
50	C
51	A
52	D
53	E
54	C
55	E
56	B
57	B
58	D
59	D
60	B

Free-Response Scoring Guidelines

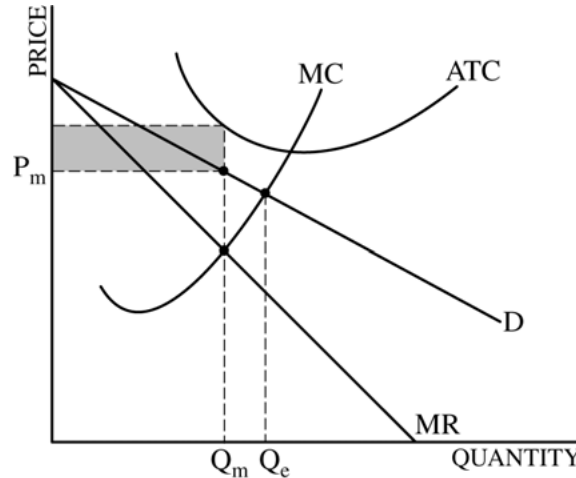
The following contains the scoring guidelines
for the free-response questions in this exam.

**AP[®] MICROECONOMICS
2012 SCORING GUIDELINES**

Question 1

10 points (5 + 1 + 2 + 2)

(a) 5 points:



(i) 3 points:

- One point is earned for a correctly labeled downward-sloping demand curve and a downward-sloping marginal revenue curve below the demand curve.
- One point is earned for identifying the profit-maximizing quantity, Q_m , at $MR = MC$.
- One point is earned for identifying price, P_m , above Q_m on the demand curve.

(ii) 1 point:

- One point is earned for shading the area of economic loss.

(iii) 1 point:

- One point is earned for identifying the allocatively efficient quantity, Q_e , at $MC = D$.

(b) 1 point:

- One point is earned for stating that the total revenue would decrease because the demand is price elastic in that range of the demand curve where $MR > 0$.

(c) 2 points:

- One point is earned for stating that the quantity will increase because the subsidy will cause the MC curve to shift downward and intersect the MR curve at a larger quantity.
- One point is earned for stating that the consumer surplus will increase.

(d) 2 points:

- One point is earned for stating that the deadweight loss will not change because the lump-sum subsidy does not change the profit-maximizing quantity.
- One point is earned for stating that economic losses will decrease.

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Question 2

6 points (3 + 1 + 1 + 1)

(a) 3 points:

- One point is earned for determining the total utility, which is 24.
- One point is earned for stating that three bagels and five toy cars will be purchased.
- One point is earned for explaining that with this combination of bagels and toys, the marginal utility per dollar spent on bagels equals the marginal utility per dollar spent on toy cars.

(b) 1 point:

- One point is earned for stating that Theresa's demand for bagels will not change because the increase in the price of wheat will affect the supply of bagels, not the demand.

(c) 1 point:

- One point is earned for stating that bagels are inferior goods.

(d) 1 point:

- One point is earned for calculating the cross-price elasticity for toy cars and blocks:
 $-0.04/0.10 = -0.4$

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Question 3

5 points (1 + 3 + 1)

(a) 1 point:

- One point is earned for stating that Loriland is importing 12 million pounds.

(b) 3 points:

- One point is earned for identifying the new level of domestic production as 6 million pounds.
- One point is earned for calculating the domestic consumer surplus as \$25 million and showing the work: $\frac{1}{2} [(\$9 - \$4) \times 10] = \$25$
- One point is earned for calculating the revenue from the tariff as \$8 million and showing the work: $(\$4 - \$2) (10 - 6) = \$8$.

(c) 1 point:

- One point is earned for identifying the per-unit tariff that maximizes the sum of consumer and producer surplus as \$0.

Scoring Worksheet

The following provides a worksheet and conversion table used for calculating a composite score of the exam.

2012 AP Microeconomics Scoring Worksheet

Section I: Multiple Choice

$$\frac{\text{Number Correct}}{\text{(out of 60)}} \times 1.0000 = \frac{\text{Weighted Section I Score}}{\text{(Do not round)}}$$

Section II: Free Response

$$\text{Question 1 } \frac{\text{_____}}{\text{(out of 10)}} \times 1.5000 = \frac{\text{_____}}{\text{(Do not round)}}$$

$$\text{Question 2 } \frac{\text{_____}}{\text{(out of 6)}} \times 1.2500 = \frac{\text{_____}}{\text{(Do not round)}}$$

$$\text{Question 3 } \frac{\text{_____}}{\text{(out of 5)}} \times 1.5000 = \frac{\text{_____}}{\text{(Do not round)}}$$

$$\text{Sum} = \frac{\text{_____}}{\text{Weighted Section II Score (Do not round)}}$$

Composite Score

$$\frac{\text{Weighted Section I Score}}{\text{_____}} + \frac{\text{Weighted Section II Score}}{\text{_____}} = \frac{\text{Composite Score (Round to nearest whole number)}}{\text{_____}}$$

AP Score Conversion Chart
Microeconomics

Composite Score Range	AP Score
71-90	5
56-70	4
46-55	3
35-45	2
0-34	1

AP Microeconomics

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