

CHAPTER 2

The Market System and the Circular Flow

A. Short-Answer, Essays, and Problems

1. Explain the term “laissez faire capitalism.”
2. Explain what is meant by a command economy.
3. Evaluate the statement: “The government should have no place in a capitalistic market system.”
4. List nine characteristics of the market system.
5. Why is the right of private property an essential characteristic of a market system?
6. What role does freedom play in capitalism? How important is it to the operation of a competitive market economy?
7. Explain the importance of self-interest in the operation of a market system.
8. What is the importance of competition in relation to self-interest in a market system?
9. What conditions are necessary for economic competition to exist?
10. “The regulatory force in the market system bears the seeds of its own destruction.” Explain and evaluate.
11. Explain why the market system is an organizing mechanism.
12. Respond to the following question: “Producing capital goods or advanced technology takes time, so how can that be a more efficient form of production of consumer goods?”
13. Describe two types of specialization in production.
14. What are the economic advantages of specialization?
15. Describe three ways that specialization contributes to society’s output.
16. What advantage does a money economy have over a barter economy?
17. How does the use of money differ from the use of barter in the exchange of goods and services?
18. What is money and what important function does it perform? Explain how it overcomes the disadvantages associated with barter. What conditions are necessary for people to accept paper currency in exchange for the goods and services which they sell?
19. Suppose Tom, Dick, and Harry live in a barter economy. Tom produces wine, Dick bakes bread, and Harry makes cheese. Tom wants some bread to go with his wine and is willing to trade 1 gallon of wine for two loaves of bread. Dick wants some cheese to go with his bread and is willing to trade one loaf of bread for one-half pound of cheese. Harry doesn’t want bread, but wants some wine to go with his cheese and is willing to trade cheese for one gallon of wine. It is not possible for all three of them to meet together at one time.
 - (a) Explain how this situation illustrates the difficulty with a barter economy.

- (b) Devise a money system using precious stones where four stones are equivalent in value to one gallon of wine. In other words tell how much bread and cheese would be worth in terms of stones in this economy. In this system, how much cheese must Harry sell in order to buy one gallon of wine?

20. What are the so-called Five Fundamental Questions that every economy must answer?

21. A firm has the choice between producing product A, B, or C. In producing the products the firm faces a weekly cost of \$10 for product A, \$130 for product B and \$200 for product C. The prices received for each product at different quantities are listed in the table below.

Output	Product A	Product B	Product C	Profit A	Profit B	Profit C
5	\$3.00	\$15.00	\$35.00	_____	_____	_____
10	2.00	12.00	20.00	_____	_____	_____
15	1.25	9.00	10.00	_____	_____	_____

- (a) Compute the firm's profit for A, B, and C and enter this data into the table.
 (b) Which product will the firm choose to produce and how much output will maximize profit?
22. Assume that a firm can produce product A, product B, or product C with the resources it currently employs. These resources cost the firm a total of \$100 per week. Assume, for the purposes of this problem, that the firm's costs cannot be changed. The market prices and the quantities of A, B, and C these resources can produce are given as follows.

Product	Market price	Output	Profit
A	\$14.00	10	\$_____
B	9.00	11	_____
C	.50	300	_____

- (a) Compute the firm's profit when it produces A, B, or C and enter these data in the table.
 (b) Which product will the firm produce?
 (c) If the price of A rose to \$16, which product will the firm produce?
 (d) If the firm produces A at a price of \$16, what would tend to happen to the number of firms producing product A?
23. Assume that a firm can produce product A, product B, or product C with the resources it currently employs. These resources cost the firm a total of \$100 per week. Assume, for the purposes of this problem, that the firm's costs cannot be changed. The market prices and the quantities of A, B, and C these resources can produce are given below.

Product	Market price	Output	Profit
A	\$10.00	6	\$_____
B	5.00	19	_____
C	1.50	100	_____

- (a) Compute the firm's profit when it produces A, B, or C and enter these data in the table.
 (b) Which product will the firm produce?
 (c) Suppose the quantity of product B the firm was able to produce with the same amount of inputs now rose to 25. Which product will the firm now produce?
 (d) As a result of the rise in quantity of product B to 25 that each firm can produce, what will happen to the number of firms producing product B?
24. How does 'consumer sovereignty' determine the types and quantities of the goods produced in an economy?

25. How does consumer choice differ from consumer sovereignty in a market system?
26. Explain in detail how a decrease in consumer demand for a product will result in less of the product being produced and in fewer resources being allocated to its production.
27. (Consider This) How is consumer sovereignty at work at McDonalds? Give an example of a hit and a miss.
28. The demand for a resource is “derived” from the goods and services that the resource is used to produce. Give three examples.
29. Why does competition force firms to use the least-cost, most efficient, productive techniques?
30. Assume that a firm finds that its profits will be maximized (or losses minimized) when it produces \$30 worth of product X. Each of these techniques shown in the following table will produce exactly \$30 worth of X.

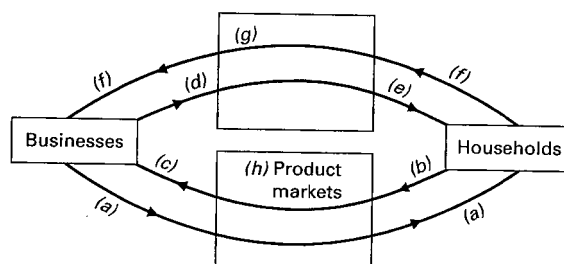
	Unit resource prices	Method #1	Method #2	Method #3
Land	\$1	6	3	4
Labor	2	4	3	3
Capital	3	3	4	6
Entrepreneurship	4	2	4	1

- (a) Which method is most efficient? Why?
 - (b) Given the above prices, will the firm adopt a new method which involves 10 units of land, 3 of labor, 2 of capital, and 2 of entrepreneurial ability?
 - (c) Suppose the price of capital falls to \$1 without any other prices changing. Which of the methods will the firm now choose? Why?
31. Assume that a firm finds that its profits will be maximized (or losses minimized) when it produces \$50 worth of product X. Each of these techniques shown in the following table will produce exactly \$50 worth of X.

	Unit resource prices	Method #1	Method #2	Method #3
Land	\$4	4	2	1
Labor	3	4	3	6
Capital	2	3	4	3
Entrepreneurship	1	3	6	4

- (a) Which method is most efficient? Why?
 - (b) Given the above prices, will the firm adopt a new method which involves 2 units of land, 2 of labor, 4 of capital, and 8 of entrepreneurial ability?
 - (c) Suppose the price of labor falls to \$1 without any other prices changing. Which of the methods will the firm now choose? Why?
32. What is meant by the guiding function of prices?
 33. How can technological advance result in creative destruction?
 34. Adam Smith in his 1776 book the *Wealth of Nations* describes the concept of “an invisible hand.” Explain what he means by an “invisible hand.”
 35. Explain this quote from Adam Smith: “It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner but from their regard to their own interest.”

36. “Competition is the mechanism that brings order out of potential chaos in a price-directed economy.” Explain.
37. Describe the three major virtues of a market system.
38. What are the two main problems that have caused the demise of the command systems?
39. What is the coordination problem in command economics?
40. Is the problem of coordination common to all economies? Explain how the problem is met in a market economy and how coordination was dealt with in a command economy.
41. What is the incentive problem in central planning?
42. “A major reason the economy of the former Soviet Union collapsed was due to a lack of incentives that are provided by the profit system.” Evaluate.
43. (Consider This) Explain the differences in economic systems between North and South Korea and the economic outcomes of the two systems.
44. Describe the basic features of the circular flow diagram.
45. What is the relationship between businesses and households in the circular flow diagram?
46. In the below circular flow diagram, the household and business sectors are labeled with arrows representing the flows of income and output labeled (a) through (f) and the two appropriate markets labeled (g) and (h). Supply the correct descriptive titles for each of these labels (a) through (h).



47. Describe the flows that occur between (a) households and the product market, (b) businesses and the product market, and (c) households and the resource market.
48. Define the three main categories of businesses.
49. Explain the main characteristics of a corporation.
50. (Last Word) Explain why the arrangement in the use of resources in a market system is not random given the decentralized nature of the system.

B. Answers to Short-Answer, Essays, and Problems

1. Explain the term “laissez faire capitalism.”

Pure capitalism is sometimes called “laissez faire” capitalism which is a French term for “let it be.” In pure capitalism the government’s role is limited to protecting private property and establishing the legal framework for free enterprise and free markets to function. [text: E p. 30; MA p. 30; MI p. 30]

2. Explain what is meant by a command economy.

The command economy is the opposite extreme alternative to pure capitalism. It is a system characterized by government ownership of all or nearly all property resources and centrally planned and administered production. [text: E p. 30; MA p. 30; MI p. 30]

3. Evaluate the statement: “The government should have no place in a capitalistic market system.”

While having a large government presence in the economy like in a command market system can be detrimental to efficiency, innovation and growth, there is still a place for government in a capitalistic system. Government can work to promote economic stability and growth and provide rules for the market system to ensure fair business practices, all of which benefit the economy and society as a whole. The government can also work to provide goods and services that would be underproduced or not produced at all. The government also redistributes income. While market forces play the dominant role in determining what and how much is produced, the government still has a part in the system. [text: E p. 30; MA p. 30; MI p. 30]

4. List nine characteristics of the market system.

The six characteristics discussed in the text are: (1) private property; (2) freedom of enterprise and choice; (3) self-interest as the major motivation for economic activity; (4) competition among buyers and sellers; (5) reliance on the market (price) system; (6) the use of advanced technology and large amounts of capital goods; (7) specialization; (8) the use of money rather than barter; and (9) a limited role for government. [text: E pp. 30-34; MA pp. 30-34; MI pp. 30-34]

5. Why is the right of private property an essential characteristic of a market system?

Property rights are important because they give people private ownership of resources. This ownership encourages them to make the best use of those resources because they will benefit if they do. Property rights also encourage people to take the risk of investing in capital goods or to develop new innovation or products because they will receive the benefits from this activity if they are successful. Property rights offer incentives for people to maintain their property to preserve its value and invest in it if they think they can increase its value. Property rights also facilitate exchanges by making clear who owns a resource so that there is no question about the legitimacy of the transaction. [text: E pp. 30-31; MA pp. 30-31; MI pp. 30-31]

6. What role does freedom play in capitalism? How important is it to the operation of a competitive market economy?

In capitalism, two essential freedoms are the freedom of enterprise and freedom of choice. Business must be free to get economic resources, organize them to produce products, and sell them in the market. Businesses must also be free to enter or leave an industry. Freedom of choice gives business owners, resource owners, and consumers freedom to act to advance their own self-interest. Business owners are free to buy and sell property. Labor resources (workers) can enter or exit any line of work for which they are qualified. Consumers are free to purchase goods and services as they choose based on their budget constraints. Without these freedoms it would be impossible for a market economy to exist. [text: E p. 31; MA p. 31; MI p. 31]

7. Explain the importance of self-interest in the operation of a market system.

Self-interest is the motivating force behind both the demand and supply sides of the product and resource markets in a capitalist system. Entrepreneurs engage in production with the expectation of making a profit; workers seek the best wage and working conditions they can get; consumers allocate their spending in order to maximize their satisfaction. [text: E p. 31; MA p. 31; MI p. 31]

8. What is the importance of competition in relation to self-interest in a market system?

Competition is important as the force which tempers or regulates the greed or self-interest of the producers, sellers, workers, and buyers. If producers make too much profit, competitors will arise to take advantage of the opportunity and as production increases, prices and profits will fall. If workers demand too much, employers will seek other workers who are willing to work for less. If buyers are not willing to pay a fair price for the product, producers will sell the product to someone who is. In each case it is competition or the threat of competition that tempers the greed of the economic “player.” [text: E pp. 31-32; MA pp. 31-32; MI pp. 31-32]

9. What conditions are necessary for economic competition to exist?

Competition requires the presence of large numbers of buyers and sellers. The number must be large enough so that no single buyer or seller can affect the price of the product by their individual actions regarding demand or supply. In addition, competition assumes that it is simple for producers to enter or leave a particular industry so that the economy can adjust appropriately to changes in consumer demand, technology, or resource supplies. [text: E pp. 31-32; MA pp. 31-32; MI pp. 31-32]

10. “The regulatory force in the market system bears the seeds of its own destruction.” Explain and evaluate.

Competition is the regulatory mechanism of the market economy. However, a successful competitor has the potential of driving rivals out of business if the most successful firm is more efficient and other firms are either purchased or leave the industry unable to compete with the most successful. If this occurs, there is the potential of just a few successful firms remaining in the industry, and the competition that once existed has been reduced or even ultimately destroyed as the most successful firms gain monopoly power.

In other words, competitive firms want to “beat” their rivals, but if they are successful in damaging their competitors, they would also destroy competition. [text: E p. 32; MA p. 32; MI p. 32]

11. Explain why the market system is an organizing mechanism.

Markets and price give the economic system its ability to coordinate millions of economic decisions made on a daily basis. The system is an extensive communication network for expressing the wishes of consumers to producers. The price signals given by markets direct resources to the goods and services people want and indicate where profits are to be made for producers. Producers who fail to heed the market signals are punished. Consumers also use the market price to figure out how to make the best use of their limited incomes. [text: E p. 32; MA p. 32; MI p. 32]

12. Respond to the following question: “Producing capital goods or advanced technology takes time, so how can that be a more efficient form of production of consumer goods?”

The production of capital goods or advanced technology does require time. These capital goods, however, can then be used to increase the production of consumer goods. This roundabout method of production is more efficient over time, but it does not come without a cost. As shown by the production possibilities curve, resources used to make capital goods must be diverted from the production of consumer goods today to produce capital goods that will then be used to increase the consumer goods of tomorrow. [text: E p. 33; MA p. 33; MI p. 33]

13. Describe two types of specialization in production.

Specialization may be of the human form with division of labor where different workers perform different production tasks; or it may be geographic specialization where some goods and services are produced in certain regions and others are produced in other areas. [text: E p. 33; MA p. 33; MI p. 33]

14. What are the economic advantages of specialization?

The advantages come from increased productivity or output per worker as specialized workers gain skills in performing one task. Therefore, more is produced with the same amount of resources as before specialization. [text: E p. 33; MA p. 33; MI p. 33]

15. Describe three ways that specialization contributes to society's output.

First, specialization lets people take advantage of differences in skills and abilities so they can be more efficient and productive. Second, specialization fosters learning by doing so people can become good at a particular task. Third, specialization saves time because people do not have to switch from one task to another. [text: E p. 33; MA p. 33; MI p. 33]

16. What advantage does a money economy have over a barter economy?

Trade is difficult with barter because it requires a coincidence of wants. Money overcomes that problem. A buyer can obtain goods without having to locate a seller who desires what the person has to trade. All products can be priced and traded on a common basis. Also, with money, neither party needs to carry products around with them so they are always available for trade. Money facilitates the exchange of products which is necessary for specialization. Economic efficiency is improved with a system of money. [text: E pp. 33-34; MA pp. 33-34; MI pp. 33-34]

17. How does the use of money differ from the use of barter in the exchange of goods and services?

Barter requires a coincidence of wants in order for exchange to take place both parties have to want what the other is offering. Money, on the other hand, acts as a medium of exchange in that the appropriate quantity of it is generally acceptable in exchange for any good or service. [text: E pp. 33-34; MA pp. 33-34; MI pp. 33-34]

18. What is money and what important function does it perform? Explain how it overcomes the disadvantages associated with barter. What conditions are necessary for people to accept paper currency in exchange for the goods and services which they sell?

Money is anything that is generally acceptable as a medium of exchange. In the United States economy, money includes currency, coins, and checkable deposits.

Barter requires a coincidence of wants between the two parties to a transaction. Each has to want what the other has to offer. Money makes this coincidence unnecessary, as the seller is willing to accept money in exchange for goods or services offered and can, in turn, exchange the money earned for other goods and services from another seller. The necessary condition for the use of paper currency is that it must be generally acceptable. Sellers must have faith that the currency will have value when they want to use it to buy goods and services for themselves.

Note that the money does not have to have any intrinsic value; that is, it does not have to be backed by a material that has some use like gold or silver. [text: E pp. 33-34; MA pp. 33-34; MI pp. 33-34]

19. Suppose Tom, Dick, and Harry live in a barter economy. Tom produces wine, Dick bakes bread, and Harry makes cheese. Tom wants some bread to go with his wine and is willing to trade 1 gallon of wine for two loaves of bread. Dick wants some cheese to go with his bread and is willing to trade one loaf of bread for one-half pound of cheese. Harry doesn't want bread, but wants some wine to go with his cheese and is

willing to trade cheese for one gallon of wine. It is not possible for all three of them to meet together at one time.

- (a) Explain how this situation illustrates the difficulty with a barter economy.
- (b) Devise a money system using precious stones where four stones are equivalent in value to one gallon of wine. In other words tell how much bread and cheese would be worth in terms of stones in this economy. In this system, how much cheese must Harry sell in order to buy one gallon of wine?
- (a) The lack of coincidence of wants is illustrated in this situation. Tom wants the bread that Dick has, Dick wants Harry's cheese, and Harry wants Tom's wine but for any two of them there is no incentive to trade for something each does not want. In other words, there is no coincidence of wants.
- (b) If precious stones could be used as a medium of exchange, Tom could receive four stones for each gallon of wine. According to their initial exchange values, he should be willing to pay two stones for each loaf of bread. Dick would then have four stones to purchase one pound of cheese and Harry could buy wine with the four stones he earned from selling this cheese. In terms of stone prices, bread is worth two stones per loaf and one gallon of wine and one pound of cheese are each worth four stones in this economy.

[text: E pp. 33-34; MA pp. 33-34; MI pp. 33-34]

20. What are the so-called Five Fundamental Questions that every economy must answer?

Every economy must respond to five fundamental economic questions. What goods and services will be produced? How will the goods and services be produced? Who will get the goods and services? How will the system accommodate change? How will the system promote progress? [text: E p. 34; MA p. 34; MI p. 34]

21. A firm has the choice between producing product A, B, or C. In producing the products the firm faces a weekly cost of \$10 for product A, \$130 for product B and \$200 for product C. The prices received for each product at different quantities are listed in the table below.

Output	Product A	Product B	Product C	Profit A	Profit B	Profit C
5	\$3.00	\$15.00	\$35.00	_____	_____	_____
10	2.00	12.00	20.00	_____	_____	_____
15	1.25	9.00	10.00	_____	_____	_____

- (a) Compute the firm's profit for A, B, and C and enter this data into the table.
- (b) Which product will the firm choose to produce and how much output will maximize profit?

(a) *See table.*

Output	Product A	Product B	Product C	Profit A	Profit B	Profit C
5	\$3.00	\$15.00	\$35.00	\$ 5.00	(\$55.00)	(\$25.00)
10	2.00	12.00	20.00	10.00	(10.00)	0
15	1.25	9.00	10.00	8.75	5.00	(50.00)

- (b) The firm will produce product A, because it produces the largest profit of \$10 at 10 units of output.

[text: E p. 35; MA p. 35; MI p. 35]

22. Assume that a firm can produce product A, product B, or product C with the resources it currently employs. These resources cost the firm a total of \$100 per week. Assume, for the purposes of this problem, that the firm's costs cannot be changed. The market prices and the quantities of A, B, and C these resources can produce are given as follows.

Product	Market price	Output	Profit
A	\$14.00	10	\$_____
B	9.00	11	_____
C	.50	300	_____

- (a) Compute the firm's profit when it produces A, B, or C and enter these data in the table.
 (b) Which product will the firm produce?
 (c) If the price of A rose to \$16, which product will the firm produce?
 (d) If the firm produces A at a price of \$16, what would tend to happen to the number of firms producing product A?

Product	Market price	Output	Profit
A	\$14.00	10	\$40.00
B	9.00	11	- 1.00
C	.50	300	50.00

- (a) Profit for A will be \$40; for B will be -\$1 (loss); for C will be \$50.
 (b) Firm will produce product C.
 (c) If the price of A rises (assuming the firm can sell all of its output at the new price), it would make a profit of \$60 on A and so would produce product A.
 (d) If other firms face similar costs, more firms would enter industry A to take advantage of the higher economic profits.

[text: E p. 35; MA p. 35; MI p. 35]

23. Assume that a firm can produce product A, product B, or product C with the resources it currently employs. These resources cost the firm a total of \$100 per week. Assume, for the purposes of this problem, that the firm's costs cannot be changed. The market prices and the quantities of A, B, and C these resources can produce are given below.

Product	Market price	Output	Profit
A	\$10.00	6	\$_____
B	5.00	19	_____
C	1.50	100	_____

- (a) Compute the firm's profit when it produces A, B, or C and enter these data in the table.
 (b) Which product will the firm produce?
 (c) Suppose the quantity of product B the firm was able to produce with the same amount of inputs now rose to 25. Which product will the firm now produce?
 (d) As a result of the rise in quantity of product B to 25 that each firm can produce, what will happen to the number of firms producing product B?

Product	Market price	Output	Profit
A	\$10.00	6	-\$40.00
B	5.00	19	- 5.00
C	1.50	100	50.00

- (a) Profit for A will be -\$40 (loss); for B will be -\$5 (loss); for C will be \$50.

- (b) The firm will produce product C.
- (c) The firm would still choose product C.
- (d) If all firms are identical with identical costs, there will be no change in the number of firms producing product B because it is still more profitable for each firm to produce C. Thus product B is unaffected. [text: E p. 35; MA p. 35; MI p. 35]

24. How does ‘consumer sovereignty’ determine the types and quantities of the goods produced in an economy?

Consumers make ‘dollar votes’ by purchasing what they are most willing and able to buy. The ‘votes’ register consumers’ wants in the economy and if the demand is enough to produce an economic profit in an industry, then the economy will increase production of that good. Conversely, if the level of demand results in a loss in that industry, the economy will decrease production of that good. Businesses and resource suppliers are not completely free to produce the goods and services they wish, but rather must face the preferences of the consumers. [text: E p. 35; MA p. 35; MI p. 35]

25. How does consumer choice differ from consumer sovereignty in a market system?

Consumer choice by itself refers only to consumers’ freedom to choose what they are willing and able to buy from what is available. Consumer sovereignty that exists in a market system goes one crucial step further. It means that producers respond to the choices that consumers make. If consumer demand declines for a particular product, that decreased demand will be reflected in prices and quantity produced. If consumer demand increases, that also will be reflected in terms of prices and quantities produced. In a centrally planned system changing consumer demand is largely ignored in favor of planners’ decisions which focus on the state’s goals rather than consumer wishes. [text: E p. 35; MA p. 35; MI p. 35]

26. Explain in detail how a decrease in consumer demand for a product will result in less of the product being produced and in fewer resources being allocated to its production.

Given the supply schedule or supply curve, a decrease in consumer demand means less quantity demanded than was previously the case at each possible price. The demand curve shifts to the left.

Graphically, this will result in a new lower equilibrium quantity offered at a lower equilibrium price because consumers will not buy as much at the original equilibrium price. To eliminate a surplus at the old price, competing firms will lower the price until the quantity offered is just equal to the quantity demanded. This new quantity offered will not be as great as the original quantity. Because of less output, fewer resources will be needed. [text: E p. 35; MA p. 35; MI p. 35]

27. (Consider This) How is consumer sovereignty at work at McDonalds? Give an example of a hit and a miss.

Consumer sovereignty determines what goods get produced in the market and at businesses. If consumers like a product, a company will find it profitable to produce and sell it (a hit). If consumers do not like a product, a company will find it unprofitable to produce and sell it (a miss). An example of a recent hit at McDonalds is the “Big Xtra” (introduced in 1999). An example of a recent miss is the “55-cent special” (1997). [text: E p. 35; MA p. 35; MI p. 35]

28. The demand for a resource is “derived” from the goods and services that the resource is used to produce. Give three examples.

There is a demand for lumber because there is a demand for furniture or a demand for houses. There is a demand for wheat because there is a demand for bread and other products made with wheat (or wheat flour). There is a demand for chemical workers because there is a demand for chemicals. [text: E pp. 35-36; MA pp. 35-36; MI pp. 35-36]

29. Why does competition force firms to use the least-cost, most efficient, productive techniques?

If firms do not use the most efficient techniques, their rivals who do use more efficient methods will be able to charge lower prices and potentially take buyers from the less efficient seller. If the less efficient firm has to lower prices to match the competition without improving efficiency, it will eventually realize losses and in the long term will have to leave the industry unless it, too, uses the most efficient production methods. [text: E pp. 35-36; MA pp. 35-36; MI pp. 35-36]

30. Assume that a firm finds that its profits will be maximized (or losses minimized) when it produces \$30 worth of product X. Each of these techniques shown in the following table will produce exactly \$30 worth of X.

	Unit resource prices	Method #1	Method #2	Method #3
Land	\$1	6	3	4
Labor	2	4	3	3
Capital	3	3	4	6
Entrepreneurship	4	2	4	1

- Which method is most efficient? Why?
- Given the above prices, will the firm adopt a new method which involves 10 units of land, 3 of labor, 2 of capital, and 2 of entrepreneurial ability?
- Suppose the price of capital falls to \$1 without any other prices changing. Which of the methods will the firm now choose? Why?

- Method #1 is most efficient because it uses relatively more of the least expensive resource, and relatively less of the more expensive resources.
- Yes, it is now the least-cost method.
- It will choose #3 because it uses relatively more of capital which is now much less expensive and the total cost of each method now makes #3 the least-cost combination.

[text: E pp. 35-36; MA pp. 35-36; MI pp. 35-36]

31. Assume that a firm finds that its profits will be maximized (or losses minimized) when it produces \$50 worth of product X. Each of these techniques shown in the following table will produce exactly \$50 worth of X.

	Unit resource prices	Method #1	Method #2	Method #3
Land	\$4	4	2	1
Labor	3	4	3	6
Capital	2	3	4	3
Entrepreneurship	1	3	6	4

- Which method is most efficient? Why?
- Given the above prices, will the firm adopt a new method which involves 2 units of land, 2 of labor, 4 of capital, and 8 of entrepreneurial ability?
- Suppose the price of labor falls to \$1 without any other prices changing. Which of the methods will the firm now choose? Why?

- Method #2 is most efficient because it uses relatively more of the least expensive resource, and relatively less of the more expensive resources.
- Yes, it is now the least-cost method.
- It will choose #3 because it uses relatively more of labor which is now much less expensive and the total cost of each method now makes #3 the least-cost combination.

[text: E pp. 35-36; MA pp. 35-36; MI pp. 35-36]

32. What is meant by the guiding function of prices?

The guiding function of prices refers to the response of producers to changes in prices. With a given supply schedule, if demand increases, the market equilibrium price will rise and producers will respond to that by producing an increased quantity of the product. Also, there may be entry of firms into the industry. Conversely, if demand decreases, the market equilibrium price will fall and producers will respond to that change by producing a decreased quantity of the product. There may also be an exodus of firms from the industry. The market system is a communications system and prices are the way information is communicated and incentives are given to take action. [text: E p. 37; MA p. 37; MI p. 37]

33. How can technological advance result in creative destruction?

Rival firms must follow the lead of innovative firms that are making economic profits. If the rival firms fail to do so, they can suffer economic losses and eventually fail or be bought by other firms. Sometimes technological advance actually destroys industries because an old product is no longer needed with a new innovation put on the market, a situation referred to as creative destruction. The innovation creates a new product, but in the process of doing so it effectively destroys an industry. One example would be the automobile which eventually destroyed the market for horse-drawn carriages. [text: E p. 37; MA p. 37; MI p. 37]

34. Adam Smith in his 1776 book the *Wealth of Nations* describes the concept of “an invisible hand.” Explain what he means by an “invisible hand.”

Smith describes how businesses that operate to promote their own self-interest in the attempt to make a profit from providing a product for society also wind up promoting or advancing the public or social interest. Businesses provide products to the market that they hope consumers will want to buy. Consumers will benefit from having such products available. At the same time, businesses will try to produce those products at the least possible cost to try to maximize their profit, thus helping consumers obtain more goods and services per dollar spent. Through the competitive market, businesses direct resources to their highest and best use that benefits the businesses and society as if guided by an “invisible hand.”

35. Explain this quote from Adam Smith: “It is not from the benevolence of the butcher, the brewer, or the baker that we expect our dinner but from their regard to their own interest.”

Adam Smith believed that sellers want to make a profit and that is the reason that they are willing to sell to consumers. They are not producing bread, beer, or meat to satisfy the hunger of their customers, but rather to earn the revenue that results from the sale of these products. If they produced due to benevolence, they would give away these products. [text: E p. 38; MA p. 38; MI p. 38]

36. “Competition is the mechanism that brings order out of potential chaos in a price-directed economy.” Explain.

This is true in the absence of government direction of production. Producers are forced to produce at lowest cost by the pressures of competition. If they don’t they will not be able to sell their goods and services, because their rivals will attract the buyers at lower prices. Furthermore, producers must produce what consumers want at prices which just cover their economic costs or other producers will attract the buyers away from them. Thus, producers are driven by competition in the most efficient manner in the sense of maximizing output and the most efficient manner in terms of maximizing society’s satisfaction. [text: E p. 38; MA p. 38; MI p. 38]

37. Describe the three major virtues of a market system.

First, the market system promotes efficient use of scarce resources. Products are produced in the least costly way and the products most desired by society get produced. Second, the market system provides incentives for continual improvement and innovation. Rewards are given to entrepreneurs, workers, and consumers who attempt to make the best use of scarce resources. Third, the market system gives great

support to individual freedom for producers, consumers, and workers. Each group is able to pursue their own self-interest and thus promote the social interest. [text: E p. 38; MA p. 38; MI p. 38]

38. What are the two main problems that have caused the demise of the command systems?

The first problem is that of coordination. In a planned economy, central planners have to coordinate millions of decisions made by consumers, producers and resource suppliers. This involved planning anything from production targets and resource allocation. This took a considerable amount of time and investment.

These decisions, however, may not produce the intended results. For example, if one firm did not meet their production quota, this would have severe ramifications on the market price of the product, the production of industries that used the product in their production, and onward. These problems would only be magnified as the economy expanded, resulting in shortages, bottlenecks and production stoppages.

Another piece of the coordination problem is that lack of a success indicator. In a command economy the major success indicator is the quantitative output, regardless of costs and quality considerations. Thus, production managers in many cases would sacrifice product quality to meet production goals.

The second problem facing command economies is an incentive problem. Since central planners determined the output level, managers had no incentive to alter production. Persistent shortages or surpluses resulted because there weren't the necessary price indications to promote the increase or the halt of production of a certain product.

Another incentive problem was the lack of entrepreneurs. In command economies, firms got rewarded for meeting quantity targets and engaging in political maneuvering. This system did not promote technological advance. [text: E pp. 38-39; MA pp. 38-39; MI pp. 38-39]

39. What is the coordination problem in command economics?

The coordination problem involves the difficulty of coordinating the many inter-dependent segments of the economy and the avoidance of the chain reaction that would result from a bottleneck in any one of the segments. This coordination problem became even more difficult as the economy grew larger and more complex, and more economic decisions had to be made in the production process. There were also inadequate measures of economic performance to determine the degree of success or failure of enterprises or to give clear signals to the economy. [text: E pp. 38-39; MA pp. 38-39; MI pp. 38-39]

40. Is the problem of coordination common to all economies? Explain how the problem is met in a market economy and how coordination was dealt with in a command economy.

The problem of coordination is common to all economies. In a market system, prices adjust the quantity demanded to the quantity supplied. For example, if demand increases for a particular resource, its price will rise until the quantity supplied meets the new quantity demanded. If supply decreases, the price will rise until the quantity demanded declines to the level supplied at a new higher price.

In a planned economy, coordination is done through central planning. Such a system was not market-based, and therefore market forces played an insignificant role in decision-making. Various administrative agencies existed to control the plan, and producer and consumer prices were set by central planners to act as rationing devices. [text: E pp. 38-39; MA pp. 38-39; MI pp. 38-39]

41. What is the incentive problem in central planning?

In a centrally planned economy the incentives are ineffective for encouraging economic initiative and work, or for directing the most efficient use of productive resources. In a market economy, profits and losses signal what firms should produce, how they should produce, and how productive resources should be allocated to best meet the wants of a nation. Central planning also lacked entrepreneurship and stifled innovation, both of which are important forces for achieving long-term economic growth. Individual

workers lacked much motivation to work hard because pay was limited and there were few consumer goods to buy or they were of low quality. [text: E pp. 39-40; MA pp. 39-40; MI pp. 39-40]

42. “A major reason the economy of the former Soviet Union collapsed was due to a lack of incentives that are provided by the profit system.” Evaluate.

A very good case can be made in favor of this statement. The centrally planned system had to rely heavily on the efficient use of resources through better management and increased productivity, but it was those aspects of Soviet central planning that had the greatest flaws.

The profit system would have provided incentives for innovation, productive efficiency, and allocative efficiency that were lacking under the planned system. For example, under a profit system, resources would move toward their most efficient use where they are most in demand. In the planned economy, resources go where the planners direct, which may not be best in terms of society’s goals. This meant that consumers had less incentive to work since they couldn’t get what they wanted for their efforts. It meant that managers had little incentive to minimize costs, because rewards were based on fulfilling the plan rather than on being efficient. They also had little incentive to innovate or take risks because the reward structure was such that there were penalties for failure, but no economic profits waiting for those who successfully innovated or took risks.

It is the combination of a lack of work incentives and incentives to innovate which point to the conclusion that a profit-based system would have enhanced Soviet economic growth. [text: E pp. 39-40; MA pp. 39-40; MI pp. 39-40]

43. (Consider This) Explain the differences in economic systems between North and South Korea and the economic outcomes of the two systems.

North Korea established a command system following the Second World War that emphasized government ownership and central planning. South Korea adopted a market economic system based upon private ownership and the profit motive. The outcomes are striking with South Korea having significantly more economic growth in terms of GDP, GDP per capita and international trade. [text: E p. 39; MA p. 39; MI p. 39]

44. Describe the basic features of the circular flow diagram.

In the simple circular flow diagram, there are two decision-makers: households and businesses. These two groups are related through the resource and product markets. In the upper part of the circular flow, households sell economic resources (land, labor, capital, entrepreneurial ability) and businesses buy resources through the resource market. Businesses pay for the cost of these resources, which in turn becomes money income for households. It is the supply decisions of resources sellers (households) and the buying decisions of businesses that determine prices and employment in the resource market.

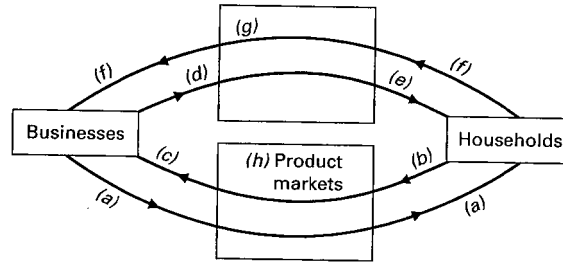
In the lower part of the circular flow, businesses sell goods and services and households buy goods and services in the product market. Households pay for these goods and services with the money income they received from providing resources. These consumption expenditures become revenue for businesses. It is the product buying decisions of households and the product selling decisions of businesses that determine prices and output in the product market. [text: E pp. 40-41; MA pp. 40-41; MI pp. 40-41]

45. What is the relationship between businesses and households in the circular flow diagram?

Households sell their resources to firms in return for money income. Businesses combine the households’ labor with other resources to create products. They offer these products for sale to households and in return receive revenue. These revenues to firms enable them to pay for the cost of resources from households as the cycle begins again. [text: E pp. 40-41; MA pp. 40-41; MI pp. 40-41]

The Market System and the Circular Flow

46. In the below circular flow diagram, the household and business sectors are labeled with arrows representing the flows of income and output labeled (a) through (f) and the two appropriate markets labeled (g) and (h). Supply the correct descriptive titles for each of these labels (a) through (h).



- (a) Consumption expenditures; (b) Revenue; (c) Goods and services; (d) Money income; (e) Costs; (f) Resources land, labor, capital, entrepreneurial ability; (g) Resource markets. [text: E pp. 40-41; MA pp. 40-41; MI pp. 40-41]
47. Describe the flows that occur between (a) households and the product market, (b) businesses and the product market, and (c) households and the resource market.
- Resources flow from the product market to households in the form of goods and services produced by businesses. Resources flow from households to the product market in the form of consumption expenditures on goods and services.
 - Resources flow from businesses to the product market in the form of goods and services the businesses produce. Resources flow from the product market in the form of revenues earned from the sale of goods and services to households.
 - Resources flow to the resource market from households in the form of labor, land, capital and entrepreneurial ability. Resources flow from the resource market to households in the form of monetary income, such as wages, rents, interest, and profits.
- [text: E pp. 40-41; MA pp. 40-41; MI pp. 40-41]
48. Define the three main categories of businesses.
- A sole proprietorship is a business owned and managed by an individual. A partnership is a business organization owned and managed by two or more individuals. A corporation is a legal entity that operates as a business. [text: E p. 41; MA p. 41; MI p. 41]
49. Explain the main characteristics of a corporation.
- Corporations are legal business organizations which are distinct and separate entities from the individuals who own them. As such, corporations are treated as legal persons that can acquire resources, own assets, produce and sell products, incur debts, extend credit, sue and be sued, and carry on all functions which other forms of business enterprises (sole proprietorship or partnership) perform. Professional managers typically run corporations and they are supervised by a board of directors that is elected annually by the corporations' owners. Corporations can be very large, such as Google or Walmart, or quite small, such as a local restaurant or used car dealership. [text: E p. 41; MA p. 41; MI p. 41]
50. (Last Word) Explain why the arrangement in the use of resources in a market system is not random given the decentralized nature of the system.

Private property encourages mutual accommodation in a market system. People who own resources seek to obtain the best use of those resources. In doing so, they make the best use of those resources and thus create arrangements of those resources that are used for the production of goods and services that people want. [text: E p. 42; MA p. 42; MI p. 42]