

CHAPTER 5. Part A,

DEPENDENCE OF THE DIVISION OF LABOR ON CAPITALISM

_____ 1. In a division-of-labor society, each person benefits from the fact that other people possess knowledge which he does not, and an intelligence separate from and often greater than his own.

_____ 2. The knowledge and intelligence of others enter into the productive process and thus enable the individual to obtain goods and services for the production of which his own knowledge and intelligence would be insufficient.

_____ 3. The benefits the individual derives from others in the division of labor requires that others be able to acquire and apply their knowledge on their own initiative, without having to await his orders, approval, or permission, which, in the nature of the case, he would be unable to give in any rational way, since he necessarily lacks the knowledge that would be required to do so.

The following is a nine-part question.

_____ 4. Private ownership of the means of production is the most fundamental of the institutions of capitalism. It underlies a division-of-labor society in a direct way and in a variety of indirect ways.

_____ 5. The direct dependence of the division of labor on private ownership of the means of production is based on the nature of the gains provided by the division of labor, in particular, the gains derived under the head of “the multiplication of knowledge” and “the benefit from the existence of geniuses.”

_____ 6. The gains from the multiplication of knowledge that the division of labor provides results from the fact that different individuals know different things about production, and yet the totality of all their separate knowledge enters into the productive process and benefits all who consume the products that result.

_____ 7. The gains from the existence of geniuses that the division of labor provides results from the fact that different individuals have different degrees of intelligence and that the intelligence of all enters into the productive process and serves to benefit everyone who consumes the products.

_____ 8. Both the multiplication of knowledge and the gains from the existence of geniuses that the division of labor provides derive from the fact that individuals possess separate, independent minds and think and hold knowledge separately and independently from one another.

_____ 9. The fact that individuals think and hold knowledge separately and independently from one another requires that they be able to act and produce separately and independently from one another. If they

could not, then those with knowledge would be in thrall to those who lacked knowledge and those with greater intelligence would be in thrall to those of lesser intelligence.

_____ 10. Since action and production require the use of material means of action and production if they are to achieve any significant or substantial results, the need for separate, independent action and production implies a need for separate, independent holdings of wealth and capital, i.e., a need for private property and private ownership of the means of production.

_____ 11. By the nature of the leading benefits it provides, namely, the multiplication of knowledge and the gains from the existence of geniuses, a division-of-labor society depends on the institution of private property and private ownership of the means of production.

_____ 12. Private property and private ownership of the means of production are fundamental and essential to a division-of-labor society because the separate, independent thinking and acting of individuals is fundamental and essential to it, and because they are the material requirement of such separate, independent thinking and acting.

_____ 13. The existence of numerous medium and large-sized business enterprises, in which large numbers of individual wage earners successfully produce under the direction of businessmen and capitalists

- a. refutes the claim that separate, independent production is necessary to the existence of the division of labor, since in these important cases it does not exist
- b. is consistent with the claim that separate, independent production is necessary to the existence of the division of labor, because the formation and extent of all business enterprises is itself the product of the separate, independent thinking and acting of all the individual participants—e.g., the individual stockholders decide the extent to which it is advantageous to pool their capitals and employ other people; the individual wage earners decide the extent to which working for such an enterprise is to their advantage compared with working on their own, as businessmen, and with working for any other such enterprise
- c. both (a) and (b)

_____ 14. In placing ownership of the means of production under government control, and thereby precluding separate, independent production and the benefits of separate, independent minds driving the productive process, socialism and collectivism destroy the foundation on which rest the most important gains from the division of labor and are thus fundamentally incompatible with a division-of-labor society.

_____ 15. As expressed in the phrase “central planning,” which is an essential characteristic of its operation, socialism and collectivism require that

- a. the whole of society function as one, indivisible unit in the conduct of the economic system
- b. every citizen or, as a minimum, the Supreme Dictator and the other members of the Central Planning Board know every significant fact pertaining to production anywhere in the economic system
- c. both (a) and (b)

_____ 16. In order for a socialist system to be operated democratically,

- a. it would be necessary that the voters decide such questions as whether a new steel mill should be built in Gary, Indiana, or somewhere else; what kind of steel mill it should be; how large it should be; and so on
- b. in the face of hundreds or thousands of such questions arising every day, the voters would have to devote their lives to nothing else, and still they would be almost entirely ignorant about the matters raised in each case
- c. both (a) and (b)

_____ 17. Any democratic decision making under socialism would necessarily quickly give way to decision making by a narrow group of government officials—the Central Planning Board.

_____ 18. Central planning even by a board of experts is actually impossible, because of its requirement that a single mind be able to know and work with every significant fact pertaining to production anywhere in the economic system.

_____ 19. Socialism in fact does not represent any form of coordinated central planning, but always limited, partial planning, which is all that any human mind is capable of accomplishing.

_____ 20. The necessarily limited, partial plans of socialism again and again turn out to be mutually contradictory, because of the lack of ability to oversee them all and thus to coordinate and harmonize them. Thus, for example, separate plans are made by different authorities that presuppose the use of one and the same supplies of means of production, with the result that the success of one plan necessitates the failure of others.

_____ 21. Economic planning under capitalism exists

- a. to the extent that the government becomes involved in economic decision making and thus introduces planning
- b. insofar as businessmen, investors, wage earners, and consumers think about courses of action they expect to be profitable or otherwise beneficial to them and decide to follow the pattern of behavior that their thinking indicates

_____ 22. Capitalism is characterized by economic planning on the part of all of the individual participants in the economic system—businessmen, investors, wage earners, and consumers.

_____ 23. Economic planning is present under capitalism when

- a. a consumer plans to buy a home or automobile or new clothes or change his diet
- b. a wage earner plans to change his job or learn a new skill or do his work in a different geographical area
- c. a businessman plans to introduce a new product, or retire an existing product, build up his inventory or run it down, hire workers, or discharge workers, open or close a branch, change his methods of production or keep them the same
- d. all of the above

_____ 24. Economic planning under capitalism

- a. exists and is all pervasive
- b. routinely takes place on the part of all participants in the economic system
- c. is based on a consideration of prices in the form of costs or revenue or income
- d. all of the above

_____ 25. The prices on which economic planning under capitalism is based make possible economic calculations, which provide a standard of action for the planner under capitalism, which is, other things being equal, buy what costs the least and do what earns the most.

_____ 26. The standard of action described in the previous question is *objective* in the light of one’s desire to obtain more wealth, since buying any given thing for less releases funds that make additional purchases possible, and earning more provides additional funds for additional purchases.

_____ 27. Prices serve to coordinate and harmonize the plans of each individual under capitalism with the plans of all other individuals in the economic system.

_____ 28. When a student changes his career plan from actor to accountant on the basis of the difference in income he can expect to earn, the change signifies making his career plan coordinate better with the plans of his fellow citizens, whose plans—as manifested in what they are willing to spend their money for—call much more for the kind of services he is likely to be able to provide as an accountant than for the kind of services he is likely to be able to provide as an actor.

_____ 29. When a prospective home buyer changes his plan concerning which neighborhood to live in on the basis of the difference in home prices, he is adjusting his housing plan to the housing plans of others, inasmuch as it is the plans of others willing and able to pay more to live in certain neighborhoods, and less to live in certain others, that determine the relative housing prices confronting our home buyer.

_____30. When a business changes its plan concerning product lines, methods and locations of production, or any other aspect of its activities in response to profit-and-loss calculations, it is changing its plan in response to changes in the plans of others. This is because it is the plans of its prospective customers, of all competing sellers of its goods, and of all other buyers of the means of production it uses or otherwise depends on, that enter into the formation of the prices determining the revenues and costs of any business firm and thus what it finds profitable or unprofitable to produce.

_____31. Use of the expression “economic planning” as a synonym for *government* planning ignores the massive planning of all of one’s fellow citizens and is thus an insult to them.

_____32. The price system is what makes possible the division of the intellectual labor required in the process of economic planning, in that it coordinates and harmonizes all the various separate, partial plans of the multitudes of different individual planners under capitalism.

_____33. Capitalism is
 a. an anarchy of production
 b. a thoroughly planned economic system, one which is planned on the basis of the thinking and values of all of the participants in the economic system

_____34. The price system rests on the profit motive and the freedom of competition.

_____35. Operating in conjunction with one another, the profit motive and the freedom of competition are the elements that
 a. drive and regulate the price system
 b. determine the formation of all individual prices
 c. bring about the integration of all individual prices into a system of prices that coordinates and harmonizes the activities of all participants in the economic system
 d. all of the above

_____36. The text promises to show that the profit motive
 a. provides powerful incentives for the steady expansion and improvement of production
 b. operates to keep the relative size of all the various industries and occupations in proper balance
 c. makes production accord with the will of the ultimate buyers—the consumers
 d. ensures that the production of each individual good takes place in a way that is maximally conducive to production in the rest of the economic system
 e. balances the demand and supply of each product and ensures the most rational and efficient distribution of each product over space and time among all the markets that compete for it
 f. all of the above

_____37. The text promises to show that the profit motive

- ensures the delivery of each product into the hands of those individuals who, within the limits of their wealth and income, need or desire it the most
- ensures the most rational and efficient allocation of capital and of every type of labor and material among its possible alternative uses
- makes the economic system respond to changes in economic conditions in the most rational and efficient manner possible
- creates economic order and harmony out of the activities of all the different individuals who comprise the economic system
- is what enables capitalism to be an economic system that is rationally and cohesively planned by each and every individual who participates in it
- all of the above

_____38. The profit motive is what prevents any sort of “anarchy of production.”

_____39. In seeking to serve his financial self-interest,

- every seller under capitalism must be aware that there are other sellers or potential sellers who might sell to his customers and thus that he must accordingly limit the prices he asks
- every buyer under capitalism must be aware that there are other buyers or potential buyers who might buy from his suppliers and thus that he must set the prices he offers accordingly
- in the above ways, competition and the freedom of competition are the built-in regulator which provide the essential context in which the profit motive operates
- all of the above

_____40. While the price system vitally depends on the profit motive and the freedom of competition, they in turn depend on the institution of private ownership of the means of production.

_____41. Private ownership of the means of production

- is what makes the profit motive operative in the formation of prices, the prices both of means of production and of products
- underlies the very existence of the incentives of profit and loss, in that it is private property, above all in the form of private ownership of the means of production, that is the substance of what is gained or lost by producers
- both (a) and (b)

_____42. Private ownership of the means of production underlies the existence of the incentives of profit and loss, because without the ability to accumulate holdings of private property, there would be nothing for producers to

- a. gain except the ability to enlarge their immediate consumption
- b. lose, because losses can be losses only of pre-existing property
- c. both (a) and (b)

_____ 43. With private ownership of the means of production there is not only the incentive of profit and loss to use the means of production profitably but also the fact that an individual's control over the means of production is increased or decreased to the extent that he uses them profitably or unprofitably.

_____ 44. An individual's control over the means of production is increased or decreased to the extent that he uses them profitably or unprofitably because

- a. those owners who use the means of production profitably are in a position to save and reinvest, in proportion to the extent of their profits and thereby to enlarge their control over the means of production
- b. those owners of the means of production who suffer losses correspondingly lose control over the means of production, inasmuch as their losses mean that their sales proceeds are less than their initial outlays and thus that they lack the funds to replace the means of production with which they began
- c. both (a) and (b)

_____ 45. Private ownership of the means of production is what

- a. gives the profit motive its substance and strength
- b. enables the profit motive both to be operative in the formation of the prices of means of production and products and to direct the use of the means of production
- c. enables success or failure in earning profits to determine the extent of one's control over means of production in the future
- d. gives the profit motive virtually all of its economic influence
- e. all of the above

_____ 46. Private ownership of the means of production underlies economic competition, in that economic competition presupposes separate, independent producers, who, in order to be separate and independent, must hold the wealth they use in production separately and independently from one another, i.e., as private property.

_____ 47. Competition among producers presupposes private ownership of the means of production.

_____ 48. The freedom of competition, like virtually all other freedoms, is an aspect of property rights: it is the freedom of owners of means of production to employ their means of production in any branch of industry they choose.

_____ 49. In addition to its dependence on the profit motive and freedom of competition, the price

system, also depends on the institutions of exchange and money.

_____ 50. The very phenomenon of exchange presupposes the separate ownership of the things exchanged. Exchange is a mutual transfer of property between two parties, with the property of each being given as the condition of receiving the property of the other.

_____ 51. Prices are sums of money exchanged for units of goods or services.

_____ 52. A collectivist monopoly on production, which is the essence of socialism, is incompatible with the means of production being exchanged or, therefore, having prices.

_____ 53. Under socialism, capital goods cannot be bought or sold because all capital goods are owned by the same party: the state.

_____ 54. A leading purpose of socialism is supposed to be the removal of labor from the status of a commodity that is bought and sold in the market; and, indeed, labor cannot be bought and sold under socialism except on the terms arbitrarily dictated by a universal monopoly employer: the state, which would imply wages at the level of minimum subsistence.

_____ 55. Private ownership of the means of production is essential for the existence of markets for capital goods and of competitive markets for labor. It is thus essential for the existence of market prices of the means of production.

The following is a five-part question.

_____ 56. The price system depends on the institution of saving and capital accumulation, in that the prices of the means of production are not paid by the consumers, who purchase only the ultimate final products, but by businessmen.

_____ 57. All the materials and supplies, all the tools, equipment, and labor services used in production are purchased and paid for by businessmen, almost entirely out of accumulated capital, not by the ultimate consumers out of consumption spending.

_____ 58. True answers to the two preceding questions imply that the prices of the means of production depend on saving and capital accumulation.

_____ 59. In order for people to save and accumulate capital, to improve the productive property at their disposal in any way, or even just to maintain it, they must have the expectation of benefiting from such action. They can rationally have that expectation only if that wealth—those means of production—are securely their private property.

_____ 60. Saving and capital accumulation vitally depend on the institution of private ownership of the means of production and its security. Where property

is insecure, there is little or no saving and capital accumulation.

_____ 61. The price system depends on the institution of private ownership of the means of production through its dependence on

- a. the profit motive
- b. competition
- c. exchange and money
- d. saving and capital accumulation
- e. all of the above

_____ 62. The institution of private ownership of the means of production underlies

- a. the profit motive
- b. competition
- c. exchange and money
- d. saving and capital accumulation
- e. the price system
- f. all of the above

_____ 63. Saving and capital accumulation are necessary to the existence of a division-of-labor-society because

- a. they are necessary to the production of all goods whose production requires more time than elapses between two meals
- b. in raising the productivity of labor in the production of food and other vital necessities, they make possible the release of labor for the production of other goods and thus the development of the division of labor
- c. they make possible a “division of payments”
- d. all of the above

_____ 64. The “division of payments”

- a. refers to the fact that instead of payments being made only at the end of a process of production, by the ultimate consumers, they are made at points along the way, within relatively short periods of time after the producers at any given stage of production have completed their specific work
- b. is illustrated by the fact that autoworkers are paid within one or two weeks after the start of their labor, and the producers of the steel and other capital goods that go into automobiles are usually paid within a month or two of their shipment of those capital goods, even though the consumers of automobiles may not complete payment for their cars for as long as five years
- c. both (a) and (b)

_____ 65. It is not uncommon for cases to exist in which labor must be performed decades or generations before the ultimate final products appear—for example, the case of workers building a factory to produce construction equipment used in the construction of further factories.

_____ 66. The division of payments and thus saving and capital accumulation are vital to the existence of the division of labor in its vertical aspect (the aspect of

temporal succession in the process of production), since without them producers whose work is temporarily far removed from the payment by the ultimate consumers would simply be unable to produce such products because the waiting time for payment would be too long.

_____ 67. In a division-of-labor society exchange must exist on a massive scale and be a central feature of economic life because

- a. each product originates in a huge concentration in the hands of a relatively small number of producers and must be brought into the hands of a vast number of consumers
- b. exchange is the mechanism by means of which the movement of goods from producer to consumer is accomplished
- c. both (a) and (b)

_____ 68. A division-of-labor society depends specifically on *monetary* exchange

- a. in order to overcome the barriers to exchange that would otherwise exist on account of the common absence of a “double coincidence of wants”
- b. because of the necessity of monetary calculations to serve as a guide to production
- c. both (a) and (b)

_____ 69. The absence of money would mean that in order to live, people would either have to themselves be farmers or produce the kinds of goods or services frequently sought by farmers, such as the services of blacksmiths.

_____ 70. In the light of its essential role in making possible the existence of a division-of-labor society, it makes sense to claim that “money is the root of all evil.”

_____ 71. A major source of the gains from the division of labor is that the production of everything tends to be carried on by those who are able to do it best. Economic competition is the process of establishing who is able to produce things best.

_____ 72. Economic competition is the process of determining the organization of a division-of-labor society with respect to the choice of

- a. persons for occupations—for example, who will be company president and who will be janitor
- b. which products will serve which markets and to what extent
- c. which technological methods of producing any given product will be employed and to what extent
- d. all of the above

_____ 73. Economic competition is

- a. essentially an antisocial phenomenon, representing conflict, and more akin to combat than to social cooperation
- b. the mechanism for organizing and improving the efficiency of the process of social cooperation, which the division of labor represents

_____ 74. The freedom of competition, i.e., the freedom to gain the customers of others by means of offering better and/or less expensive goods or services, including goods or services that others may have chosen temporarily not to offer, serves to safeguard a division-of-labor society from possible extortion by the members of individual vital industries.

_____ 75. Prohibiting the use of strikebreakers, either by law or by private intimidation, is a violation of the freedom of competition.

_____ 76. Economic inequality is a virtually inevitable result of economic freedom in that individuals are not all equally intelligent, talented, or otherwise capable, and not all equally lucky, and thus, while all trying to succeed, will almost certainly succeed to unequal degrees.

_____ 77. The imposition of economic equality represents the destruction of the individual's ability to regard himself as a causal agent because it divides the otherwise significant effects he is able to cause by a denominator equal to the number of equal sharers and thus correspondingly reduces the effect remaining to him. For example, a man capable, by doubling his efforts, of doubling the income he earns, is able to experience only one one-thousandth of that doubling if he must share it with 999 others, and is able to experience only one one-millionth of it if he must share it with 999,999 others.

_____ 78. The imposition of economic equality represents the destruction of the individual's perception of the cost of his actions, because that cost is divided over a large group, possibly millions or even billions of people, and correspondingly reduces the cost to the individual concerned.

_____ 79. Assume that a quadruple-bypass operation costs \$100,000 but will be paid for by Medicare and thus by the taxes of perhaps 100 million American taxpayers. Calculate the cost of the operation to the individual taxpayer, including the recipient of the operation.

The following is a six-part question.

Mr. *A* can assemble 20 units of a product in an hour and must be paid \$10 per hour. Mr. *B*, who is much less capable than Mr. *A*, can manage to assemble only 10 units of the same product in an hour, but need be paid only \$4 per hour.

_____ 80. Calculate the unit labor cost that results from employing Mr. *A*.

_____ 81. Calculate the unit labor cost that results from employing Mr. *B*.

_____ 82. Use the letter *A* or *B*, indicate which of these two individuals it would be more economical to employ in terms of unit labor cost.

Now assume that the government's minimum wage, which previously had been \$3.75 per hour is raised to \$5.25 per hour.

_____ 83. Calculate the unit labor cost of employing Mr. *B* at \$5.25 per hour.

_____ 84. Again using the letter *A* or *B*, indicate which of these two individuals it would now be more economical to employ in the terms of unit labor cost and be in compliance with the minimum wage law.

_____ 85. The minimum wage law in the above example operates in the material self-interest of Mr. *B*, because it enables him to earn more money than before.

_____ 86. Economic inequality enables less capable individuals to compete with, and even outcompete, more capable individuals by means of accepting incomes that are lower in greater proportion than is their relative productivity.

_____ 87. The forcible elimination or reduction of economic inequality serves to deprive less capable individuals of the ability to successfully compete.

_____ 88. Relatively high incomes have no significant association with relatively high rates of saving out of income.

CHAPTER 5, PART B.

ELEMENTS OF PRICE THEORY: DEMAND, SUPPLY, AND COST OF PRODUCTION

_____ 89. In classical economics the concepts demand and supply refer to schedules of price and quantity and, when diagrammed, to curves showing quantities demanded or supplied at varying prices arranged in descending or ascending order.

_____ 90. In contemporary economics, the concepts demand and supply refer respectively to an amount of

expenditure of money and a quantity of a good or service put up for sale and sold.

_____ 91. The law of demand states that, other things being equal, the quantity of a good demanded is greater at a lower price and smaller at a higher price.

_____ 92. At the level of the economic system as a whole, the law of demand follows directly from the fact that the need and desire for wealth has no limit

and that a fall in the prices of goods and services is all that is necessary to enable any given expenditure of money to purchase a larger quantity of goods and services.

_____ 93. The law of demand exists because of the operation of

- the law of diminishing marginal utility
- the substitution effect
- the income effect
- all of the above

_____ 94. According to the substitution effect, a change in the price of a given good, while the prices of its substitutes remain unchanged, has the effect of shifting expenditures to it, if the change in price is in the downward direction, and away from it if the change in price is in the upward direction, because of the implicit change in the good's competitive position vis-a-vis its substitutes.

_____ 95. According to the income effect, to the extent that people were already prepared to buy a given quantity of a good at a definite price, the effect of a lower price is to enable them to buy that same quantity for a smaller expenditure of money, which is equivalent to the generation of additional income and thus gives rise to an increase in the quantity of the good demanded equivalent to the increase that would result from an equivalent increase in income.

_____ 96. The marginal utility of every unit of a good that is purchased must exceed its price, if people are to buy it. A fall in price serves to put the price below the marginal utility of additional units and thus to increase the quantity of the good demanded.

_____ 97. Other things being equal, a change in price causes a

- change in demand
- change in quantity demanded along one and the same demand curve

_____ 98. A rise in price reduces

- demand and thus reduces price
- quantity demanded

_____ 99. Changes in the demand for a good are caused by changes in the price of the good.

_____ 100. Changes in the demand for a good are caused by changes in

- the prices of other goods
- tastes and preferences
- the quantity of money
- money incomes
- the size and composition of the population
- the state of technology
- all of the above

_____ 101. Complementary goods are goods that must be employed together in order to produce the desired product or outcome. Cigarettes and matches, beer

and pretzels, automobiles and gasoline, the services of carpenters and electricians, are all examples.

_____ 102. A rise in the price of a complementary good operates to decrease the demand for the other complementary goods.

_____ 103. A rise in the wage rates of bricklayers is in the interest of electricians and carpenters, because all wage earners have the same interests.

_____ 104. The elasticity of demand refers to the degree of increase or decrease in quantity demanded in response to a change in price.

The following is multi-part question.

A fall in price results in an increase in quantity demanded, and a rise in price results in a decrease in quantity demanded.

_____ 105. In order for the demand to be *elastic*, the change in quantity demanded must outweigh the change in price, as shown by the total expenditure to buy the item (or, equivalently, the total revenue received from the sale of the item) increasing when the price decreases and decreasing when the price increases.

_____ 106. In order for the demand to be *inelastic*, the change in price must outweigh the change in quantity demanded, as shown by the total expenditure to buy the item (or, equivalently, the total revenue received from the sale of the item) decreasing when the price decreases and increasing when the price increases.

_____ 107. The type of demand that is on the borderline, between elasticity and inelasticity is the unit elastic demand, whose essential characteristic is the constancy of total expenditure/total revenue, which results from the changes in quantity demanded being in precise inverse proportion to changes in price.

The following is a four-part question.

_____ 108. With a unit elastic demand, when price doubles, quantity demanded halves. When price halves, quantity demanded doubles.

_____ 109. Calculate the effect on quantity demanded when price increases by ten percent.

_____ 110. Calculate the effect on quantity demanded when price declines by twenty-five percent.

_____ 111. Calculate the effect on quantity demanded when price declines by ninety percent.

_____ 112. A mathematical definition of elasticity is the percentage change in quantity demanded divided by the percentage change in price.

_____ 113. Cases of close substitutes and luxury goods represent examples of demands that are likely to be elastic.

_____ 114. A fall in the price of a good that is a good substitute for other goods is likely to increase the amount of money spent to buy it, because buyers will shift funds to its purchase from the purchase of substitutes whose price has not fallen.

_____ 115. A fall in the price of a luxury good that is widely desired will result in an increase in the amount of money spent to buy that good, to the extent that the lower price makes it affordable by greater numbers of individuals and thus opens up a mass market.

_____ 116. Cases of poor substitutes and necessities represent examples of demands that are likely to be inelastic.

_____ 117. Economy-wide, aggregate demand is the leading example of a unit elastic demand, because total expenditure for goods and services is determined by the quantity of money in the economic system and thus can be taken as given in the face of supply and price changes.

_____ 118. In the case of the demand for an individual good, total expenditure cannot be taken as given because changes in the supply and price of any given good affect its competitive position vis-a-vis other goods and thus the amount of money spent to buy it. Hence, the concept of unit elasticity has little or no actual application at the level of the individual good.

_____ 119. The concept of elasticity of demand helps to explain how labor-saving machinery sometimes results in the employment of fewer workers in an industry and other times in the employment of more workers in an industry.

_____ 120. Labor saving improvements in agriculture should be expected to result in

- a. more
- b. less

employment in agriculture.

_____ 121. Labor saving improvements in automobiles and personal computers for the most part have resulted in

- a. more
- b. less

employment in those industries.

_____ 122. Labor saving improvements in industries with an inelastic demand result in

- a. unemployment both in such industries and in the economic system as a whole
- b. make labor available to produce more of the goods and services people are now enabled to buy with the money they save as the result of the fall in prices in the industries with inelastic demands

_____ 123. Labor-saving improvements in agriculture have been a major source of the rising demand for goods and services throughout the rest of the economic system.

_____ 124. Suppose that successive price reductions reduce total revenue. The supplier faces a demand curve that is, in this region:

- a. price elastic
- b. unitary elastic
- c. infinitely price elastic
- d. of indeterminate elasticity
- e. price inelastic

_____ 125. If demand is price elastic within the relevant price range, then total revenue:

- a. will rise with a fall in price
- b. will fall with a fall in price
- c. will remain constant with a fall in price
- d. may either rise or fall with a fall in price
- e. will rise if price is greater than \$1, but fall if price is less than \$1

_____ 126. If demand is relatively price inelastic:

- a. a 1 percent increase in price evokes a less than 1 percent decrease in quantity demanded
- b. a 1 percent increase in price evokes a larger than 1 percent decrease in quantity demanded
- c. a 1 percent decrease in price evokes a larger than 1 percent increase in quantity demanded
- d. a 1 percent decrease or increase in price induces no change in total revenue
- e. none of the above

_____ 127. In cases in which a seller need not worry about competition, say, because he has a patent or copyright, or trade secret, the concept of elasticity of demand can help to explain the effect on his profits of charging a higher or lower price.

_____ 128. Elasticity remains constant over the entire length of the same demand curve.

_____ 129. Supply curves typically slope upward and to the right.

_____ 130. In a modern division-of-labor economy, a major reason for the upward slope of supply curves is the increasing marginal utility of the diminishing supplies that remain to sellers as they increase their sales volume.

_____ 131. The law of diminishing returns is usually not relevant to upward sloping supply curves in the short run.

_____ 132. The basic case with respect to supply is that of a given stock available for sale, which is represented by a vertical line reflecting a given quantity that sellers are prepared to sell at the best price they can obtain. In this case, upward sloping supply curves are nevertheless present in partial markets, where they reflect the competition of the buyers in other partial markets for the limited supplies.

_____ 133. At any given time, the overall supply of wheat, crude oil, gasoline, skilled or unskilled labor, and many other things is simply a given fact and can be depicted by a vertical supply curve. Nevertheless,

any given partial market for such an item can be more fully supplied by drawing supplies away from other such partial markets. To do so, however, it is necessary to “ride up” the demand curves in those markets, and this is what creates the upward slope of the supply curve in the given partial market.

_____ 134. In cases such as manufacturing and retailing, in which the quantity supplied is not a given fact but actually depends, within broad limits, on the quantity demanded, the seeming determination of price by supply and demand curves actually represents determination of price on the basis of cost of production. But the prices that constitute the costs are directly or indirectly determined by supply and demand.

_____ 135. Supply and demand curves are intellectual constructs based on logical deduction from true premises under the assumption of all other things being equal. In the real world, however, the “other things” do not remain equal, and supply and demand curves are therefore constantly changing and thus do not present themselves in a way that would enable us to observe the various individual points that make up such a curve. What we actually observe are continually changing intersection points of continually changing demand and supply curves, not points on any given demand or supply curve.

_____ 136. It is incorrect to try to derive supply and demand curves by observing changes in price and quantities demanded and supplied over time.

_____ 137. Cases in which both prices and quantities demanded rise over time

- a. contradict the law of demand
- b. reflect increases in demand and are consistent with quantities demanded having risen still more if prices had not risen or had risen less

The precise formula for calculating elasticity of demand is:

$$E_D = \frac{(Q_2 - Q_1)}{(Q_1 + Q_2)} \cdot \frac{P}{P_1}$$

all divided by

$$\frac{(P_2 - P_1)}{(P_1 + P_2)}$$

Use this formula to answer the following two questions:

_____ 138. If at a price of \$10, quantity bought will be 5400 per day, and at \$15, quantity bought will be 4600 per day, then the price elasticity of demand is approximately:

- a. 0.2
- b. 0.4
- c. 0.6
- d. 2.5
- e. 6.0

_____ 139. If at a price of \$8, the quantity of movie tickets bought will be 3300 per day, and at \$12, the ticket quantity bought will be 2700 per day, then the price elasticity of demand for movie tickets is approximately:

- a. 0.4
- b. 0.5
- c. 0.7
- d. 2.0
- e. 2.5

Answers to Questions 1-139 on Chapter 5

Question #	Correct Answer						
1	T	36	f	71	T	106	T
2	T	37	f	72	d	107	T
3	T	38	T	73	b	108	T
4	T	39	d	74	T	109	10/11
5	T	40	T	75	T	110	4/3
6	T	41	c	76	T	111	10
7	T	42	c	77	T	112	T
8	T	43	T	78	T	113	T
9	T	44	c	79	.1 cent	114	T
10	T	45	e	80	50 cents	115	T
11	T	46	T	81	40 cents	116	T
12	T	47	T	82	b	117	T
13	b	48	T	83	52.5 cents	118	T
14	T	49	T	84	a	119	T
15	c	50	T	85	F	120	b
16	c	51	T	86	T	121	a
17	T	52	T	87	T	122	b
18	T	53	T	88	F	123	T
19	T	54	T	89	F	124	e
20	T	55	T	90	F	125	a
21	b	56	T	91	T	126	a
22	T	57	T	92	T	127	T
23	d	58	T	93	d	128	F
24	d	59	T	94	T	129	T
25	T	60	T	95	T	130	F
26	T	61	e	96	T	131	T
27	T	62	f	97	b	132	T
28	T	63	d	98	b	133	T
29	T	64	c	99	F	134	T
30	T	65	T	100	g	135	T
31	T	66	T	101	T	136	T
32	T	67	c	102	T	137	b
33	b	68	c	103	F	138	b
34	T	69	T	104	T	139	b
35	d	70	F	105	T		