Graduate Microeconomics
Short Study Questions

Areas: 1. *Consumer Decision making under Uncertainty*
2. General Equilibrium
3. Imperfect Competition
4. Factor Demand and Supply

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Please **explain why** the following statements are either True, False, or Uncertain.

1. In a two-good (X and Y), two-firm (1 and 2), and two- factor (L and K) world with constant returns to scale. Good X is relatively capital intensive and Y is relatively labor intensive. If a tax is imposed on X, this will lead to a rise in the ratio of w/v.

2. We wish to compare the levels of output and prices arising from the following combinations of two firms in a market. We would expect to find that the highest price and smallest quantity will result if the firms follow the Stackelberg leadership model, if they followed the Cartel model they would produce a greater quantity with a somewhat lower price, and the greatest quantity and lowest price would result if they followed the Cournot Duopoly model.

3. The elasticity of demand for a factor by a competitive industry will be higher if the quantities of other factors are held constant than when the prices of other factors are held constant.

4. If the elasticity of demand for a good is perfectly elastic then the derived demand for a factor (labor) used to produce this good must also be perfectly elastic.

5. A fall in the real rate of interest will always decrease the desired level of saving of the average individual.

6. Trees should be harvested when the rate of growth of the tree is equal to the real rate of interest.

7. If an individual wins some money in a lottery then we would expect that this will lead her to increase her supply of labor, or alternatively she will now be willing to work for a lower wage.

8. The elasticity of demand for a particular kind of labor used by industry X will be greater, in absolute value, if the other goods that also use this same kind of labor are substitutes in consumption to good X.

9. Suppose a regulated monopoly is allowed to charge for its service according to the following two part tariff pricing system. It can charge every customer the same fixed amount for access to the service per month, and in addition they are charged the marginal production cost of output for the quantity they consumed. Such a pricing scheme will cause the monopolist to produce more output and earn lower profits than if they were allowed to operate as a pure monopolist and setting the quantity produced and the price charged according to normal monopolistic behavior.

10. The imposition of a subsidy on commodities that are complements to leisure will reduce the number of hours of labor time supplied per person.

11. When there is imperfect competition in the production of commodities X and Y, this will lead to a situation where the ratio of the Marginal Revenue in the production of X to the Marginal Revenue in the production of Y is not equal to the ratio of the prices of X and Y, nor is the Marginal rate of Substitution of Y for X equal to the ratio of the two prices.

12. In a two-good (X and Y), two-firm (1 and 2), and two- factor (L and K) world, Pareto efficiency will be achieved under perfect competition because the following two conditions will hold: (a) the Rate of Technical Substitution of K for L in the production of X will be equal to the Rate of Technical Substitution of K for L in the production of Y within the each firm and (b) in the economy the Marginal Rate of Substitution of X for Y in consumption will be equal to the overall Rate of Product Transformation of X for Y in the economy.

13. A monopolist will never charge a price at which demand is elastic, because this would mean earning less revenue than he could earn by charging a lower price.

14. The government with an appropriately designed subsidization policy can make a monopolist behave, in terms of the quantity of output it produces and the price it charges, as if it were a perfectly competitive firm.

15. If the number of hours in a day were to increase, people would work more hours per day at unchanged hourly wage rates.

16. A rise in the rate of interest will decrease the desired level of saving by the average individual.

17. A rise in the expected capital gains of houses in the future will increase the rental rates charged for houses.

18. The elasticity of demand for labor with respect to the wage rate will be larger the greater is share of labor in the total costs of production of the goods that use labor as an input.

19. If the elasticity of substitution of Capital for Labor in the production in an industry is greater than 1, then an increase of the ratio of w/v will reduce the share of labor in total production costs.

20. Suppose an economy only produces two commodities X and Y. They are both produced using capital and labor, but with different factor intensities. The quantities of capital and labor are both fixed in the economy and there is full employment of the factors. Therefore, the Rate of Product Transformation of X for Y will always increase as more X is produced.

21. Before opening up its economy a country's the rate of product transformation of X for Y is now 2/1. The relative price of the two goods (Px/Py) on the international market is 3/1. After opening up to trade we would expect that the country to export Y and import X, hence causing the rate of product transformation in the country to fall.

22. Suppose we have an economy that produces two goods X and Y with factors capital and labor, and there is full employment. To have pareto efficiency in production and consumption we only need to have the Rate of Product Transformation of X for Y equal to the Marginal Rate of Substitution of X for Y.

23. The Marshallian quantity adjustment of markets toward equilibrium is motivated by discrepancies between the price individuals are willing to pay for a quantity of a good and the price that firms wish to receive to produce the same quantity of a good.

24. Because of the asymmetry of information between the buyers and sellers on the quality of used cars on the market, the buyers will on average pay too much for the cars they buy. This will cause the sellers of used cars to increase the supply of used cars to the market.

25. Suppose the two individuals in an exchange economy possess specific quantities of the two goods that they wish to consume. If these endowments cause them to be initially off the contract curve then they could both be made better off if they were to move from their initial consumption point to anywhere on the contract curve.

26. A multi-plant monopolist who is maximizing profits will tend to have higher average costs and lower profits than a single plant monopolist using the same technology.

27. Suppose a cost reduction invention appears that lowers the marginal cost of production for an industry. If the industry's output is produced by a profit maximizing monopoly, there will have less impact on the output prices than if the industry output is produced by many competing firms.

28. A monopoly that enjoys increasing returns to scale will always be able to earn monopoly profits.

29. As output rises, continuously falling average cost and continuously rising marginal cost are mutually incompatible.

30. Assume that in some territory there is a monopoly in the sale of food at the retail level. The burden of the monopoly falls not on the customers of the monopolist but on the landlords of the customers. Therefore, the quantity of food demanded at the monopoly retail price is the same as it would be at the lower competitive price.

31. The most important use of corn is as feed for livestock, especially hogs. A sudden unexpected decrease in the supply of corn would, therefore, tend to result in lower prices of pork in the short run.

32. The imposition of a minimum wage rate can result in increased employment in non competitive labor markets.

33. A rise in the real price of the services of pediatricians will cause an increase in the average size of pediatrician's families.

34. The prohibition of cigarette advertising on television will tend to raise the true rate of return to the cigarette companies.

35. A competitive firm that has a Cobb-Douglas production function will have a wage bill which is independent of both factor prices and the price of its output.

36. The elasticity of demand for a factor by a competitive industry must be lower when the quantities of other factors are held constant than when the prices of other factors are held constant.

37. When interest rates rise, the profitability of constructing buildings falls, relative to the profitability of most other productive activities.

38. In a rapidly-adjusting competitive economy, with $\bar{w}$ constant, wages would rise in those industries that enjoy the most rapid increases in labor productivity, would fall in those industries where labor productivity was falling, and would be constant in industries whose labor productivity was constant.

39. If the elasticity of demand for the product is infinite, then the elasticity of derived demand for a given factor in the production of that product is also infinite.

40. If an economy has fixed supplies of productive factors, and fixed proportions in both production and consumption, some productive factors will be free.

41. A consumer with monopsony power in buying a commodity x, would buy more of that commodity than a competitive buyer with similar tastes and income.

42. If the derived demand for a productive factor is infinitely elastic, the demand for the product of the productive process in which it is used must also be infinitely elastic.

43. Perfect competition is incompatible with quantity discounts.

44. In an industry with increasing returns to scale there cannot be marginal cost pricing.

45. Consider a competitive firm's demand for a factor of production as a function of the factor price for given prices of other factors. In case A, also hold output fixed. In case B, instead hold the price of the product fixed. The elasticity of demand is greater for B than A.

46. The demand elasticity for Ford cars is -4.2; the elasticity for Chevrolet cars is -3.0. If Ford's market share is 1/3 and Chevrolet's is 2/3, then the elasticity of demand of both brands together is -3.4.

47. Night clubs often have an admission or cover charge in addition to the price of food or drinks. This implies the absence of marginal cost pricing.

48. Since we observe that competitive firms operate their plants at a higher rate at business cycle peaks than at business cycle troughs, they must be operating in the range of rising short-run marginal costs.

49. If the price at a point of origin is independent of quantity demanded, and if transport services are used in fixed proportion to quantity shipped to a particular market, then the derived demand elasticity for transport services with respect to their price is equal to the elasticity of demand for the shipped product at destination times the ratio of transport costs per unit of the final market price.

50. A rise in the rate of interest will increase the desired level of saving of the average individual.

51. The imposition of a tax on commodities complementary with leisure will increase the number of hours of labor-time supplied per person.

52. If a firm has two plants, one of which is subject to diminishing marginal cost of production, it will always pay it to concentrate the production of a given volume of output in that plant.

53. A positively sloped long run supply curve is necessary for a stable competitive market equilibrium.

54. If new oil fields were discovered doubling the supply of oil and reducing the price of oil by more than 50 percent, the value of all oil fields would decrease so that the wealth of the society is reduced despite its having a larger physical stock of oil.

55. Butchers can raise their total income by restricting the number of hours they work if they can limit entry into the butchers union.

56. Almost all railroads report that gross revenues from dining car service are less than the direct expense of providing the service. In their own interest the railroads should increase the price of dining car meals.

57. If the number of hours in a day were to increase, men would work more hours per day at unchanged hourly wage rates.

58. Rational expectations will cause producers to always set their prices equal to the long run market clearing prices of the goods they produce.

59. When a new supply of a commodity is introduced on the market, both the impact on the output of the other suppliers of a commodity, and the value of resources released by the other suppliers will be smaller, the larger is the own-price elasticity of demand of the commodity.

60. It is irrational to find plumbers or electricians living and working in the same town being paid different wage rates by different industries.

61. Wealthy families will tend to have fewer children than poor families because children are considered an inferior good from the perspective of consumer demand theory.

62. Suppose an economy only produces two commodities X and Y. They are both produced using capital and labor, but with different factor intensities. The quantities of capital and labor are both fixed in the economy and there is full employment of the factors. Therefore, the equilibrium point of production must also be Pareto optimal.

63. The Walras quantity adjustment of markets toward equilibrium is motivated by discrepancies between the price individuals are willing to pay for a quantity of a good and the price that firms wish to receive to produce the same quantity of a good.

64. Suppose the two individuals in an exchange economy possess specific quantities of the two goods that they wish to consume. If these endowments cause them to be initially off the contract curve then they could both be made better off if they were to move from their initial consumption point to anywhere on the contract curve.

65. Suppose the owners of two types of building that have different risk of being destroyed by fire are offered two actuarial fair insurance policies. Even if the types of buildings are known, the insurance will only be able to sell the fire insurance policy that has the lowest premium.

66. An accident insurance company can not distinguish between high risk and low risk customers. Hence, it designed an actuarially fair insurance policy based on the probabilities of high risk individuals having an accident and offers this policy for the full value of any potential loss. In this situation it should not design an actuarially fair insurance policy for its low risk customers, because it will not be able to sell any amount of it without incurring financial losses.

67. Walras Law states that for <u>any</u> set of goods' prices in an economy the sum of the products of these prices times the excess demands for the corresponding goods will always add up to zero.

68. A perfectly discriminating monopolist will earn more profits and generate a higher amount of deadweight loss than will a monopolist selling at a single price to everyone.

69. A multi-plant monopolist who is maximizing profits will tend to produce more than a single plant monopolist using the same technology.

70. In a competitive market the existence of a lagged response of production to price that generates a cobweb model of price determination does not result in a misallocation of resources in the economy.

71. A monopolist, if it wishes to maximize its profits, will always sell the same <u>quality</u> of goods as will perfectly competitive firms.

72. There is no productive inefficiency associated with monopoly.

73. If in a certain economy HIV-AIDS randomly kills 10 percent of the population, the per capita income of those remaining is expected to increase.

74. There has been a large out migration from Haiti. This will result in an increase in the per capita income of those remaining and a shift the production of capital intensive goods.

75. The supply curve for the output of a monopolist is inelastic at the point of maximum monopoly profit.

76. If a competitive industry is producing subject to a Cobb-Douglas production function a trade union can not increase total labor income by setting a different wage rate.

77. Since a monopolist has control over his prices, he will “pass on” a larger part of a wage (or tax) increase than would a competitive firm or industry under similar circumstances.

78. Because a monopolist has no supply curve, one cannot predict the effect of, say, a ten percent tax on his output.

79. A policy change which moves the economy from a sub-optimum position to the (Pareto-optimum) efficiency frontier unambiguously improves social welfare.

80. All the firms in a competitive industry are equally efficient.

81. A smaller fraction of the excise tax cut will be “passed on” to the consumer by a monopolist than by a competitive industry.

82. A monopoly that enjoys increasing returns to scale will always be able to earn monopoly profits.

83. Suppose and economy is operating in a Pareto efficient manner. If consumer tastes now change so that now more X is relatively more desirable than before, it will be also necessary for the marginal rate of product transformation of Y for X to rise in order to again achieve an efficient product mix.

86. A person who is neutral to risk will not accept an unfair gamble.

87. The elasticity of demand for labor will be higher the greater is the elasticity of substitution between labor and other inputs and the greater is the elasticity of demand for the products that use labor as a factor of production.

88. Consider a competitive firm`s demand for a factor of production as a function of the factor price when the prices of other factors are given. Let us consider two cases: (1) the quantity of output is fixed; (2) the price of the product is fixed. The elasticity of demand is greater in the second case than in the first.

89. The elasticity of demand for one factor of production by a competitive industry will be lower when the supply of the other factor is less than perfectly elastic than when the prices of these other factors of production are held constant.

90. Suppose two identical firms are producing the same commodity under competitive conditions. At the present time the ratio of the marginal product of labor to the marginal product of capital is larger in firm A than in firm B. Hence in order for the economy to reach a Pareto equilibrium, the relative wage to rental rate must rise in the economy.

91. Assume a country that is completely open to international trade produces two goods under constant returns to scale technology. The country has initially a fixed quantity of capital K_0 and labor L_0. Assume the country enjoys a capital inflow equal to 20% of its existing capital stock. This capital inflow will cause the production of both X and Y to increase.

92. The elasticity of demand for labor will be higher the greater is the elasticity of substitution between labor and other inputs and the greater is the elasticity of demand for the products that use labor as a factor of production**.**

93. A monopsonist will hire more labor and pay a higher real wage rate if the labor in the sector is unionized than if it the labor market is supplied competitively competitive.

94. The elasticity of demand for a factor of production will be larger if the prices of all other factors of production are held constant rather than if the quantities of all other factors are held constant.

95. Consider a competitive firm's demand for a factor of production as a function of the factor price when the prices of other factors are given. Let us consider two cases: (1) the quantity of output is fixed; (2) the price of the product is fixed. The elasticity of demand is greater in the second case than in the first.

96. Suppose a union of workers in an industry that are attempting to maximize the total wage bill of its members in the industry. This situation will lead to a quantity of employment that is greater than the quantity that would be hired in a competitive market, and the wage earned by the workers will be higher than that resulting from a perfectly competitive labor market.

97. The elasticity of demand for labor with respect to the wage rate will be larger the greater is share of labor in the total costs of production of the goods that use labor as input.

98. The elasticity of demand for a factor of production will be larger if the share of the factor in the total cost of producing the final good is increased.

99. To employ a factor of production so as to maximize profits, a firm selling into a competitive market should set the value of the marginal product of each factor equal to the marginal expense of the factor to the firm.

100. In a rapidly-adjusting competitive economy, with constant average wages, wages would rise in those industries that enjoy the most rapid increases in labor productivity, would fall in those industries where labor productivity was falling, and would be constant in industries whose labor productivity was constant.

101. High income women professionals tend to have smaller families than do lower paid women workers, hence, children must be an inferior good.

102. The elasticity of demand for one factor of production by a competitive industry must be lower when the supply of other factors is less than perfectly elastic than when the prices of these other factors of production are held constant.

103. In a competitive equilibrium, no matter how different their preferences may be, no two people with the same income will envy each other's consumption bundles.

104. If allocation x is Pareto optimal and allocation y is not, then everyone is at least as well off with x as with y, and someone is better off with x than with y.

105. If an allocation is Pareto efficient, it is impossible to have two people who prefer each other's consumption bundles to their own.

106. If a social welfare function is an increasing function of each person's utility, then every allocation that maximizes this social welfare function must be a Pareto optimum.