Graduate Microeconomics
Short Study Questions

Areas: *1. Consumer Demand Theory*
2. Theory of the firm and Production
3. Competitive Markets

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Indicate whether the following statements are true, false or uncertain and briefly explain why. Your grade will depend on your explanation.

1. If two goods are gross substitutes then the absolute value of the uncompensated cross price elasticity of demand must always be less than the absolute value of compensated cross price elasticity between these two goods.

2. The shares of income that individuals spend on every good will always be changing as the person's income grows, unless the person's income elasticity of demand for each goods is equal to one.

3. A fall in the price of automobiles will decrease the consumer surplus of the workers in the factory that produces the automobiles.

4. The cross-price elasticity of demand for automobiles with respect to the price of gasoline is equal to the cross- price elasticity of demand for gasoline with respect to the price of automobiles.

5. The sum of the uncompensated own and cross price elasticities of demand for any one good must be equal to the negative of the income elasticity of demand for the good.

6. An inferior good will always be inferior throughout the full range of incomes experienced by consumers.

7. If the $MRS_{xy} < P_x/P_y$ then the consumer would maximize utility if she would consume less of good X.

8. A consumer's utility function containing two goods X and Y yields a set of indifference curves that are straight lines. Thus goods X and Y must be perfect complements.

9. Demand functions are always homogeneous of degree zero.

10. A composite good must be made up of a set of goods that are all compliments with each other.

11. Budget studies have yielded an income elasticity of demand for food of 0.5 for farm families and 0.35 for urban families in North Cyprus. This implies that farm and urban families differ in their tastes for food.

12. A good such as a Mercedes-Benz car must be a luxury good throughout all ranges of income.

13. The sum of the compensated cross price elasticities of demand for all goods with respect of the price of one good A is equal to the compensated own price of elasticity of demand for that good A.

14. For people that spend less on housing than on cars, the compensated cross-price elasticity of demand for housing with respect to the price of cars must be greater than the cross-price elasticity of cars with respect to the price of housing.

15. The own-price elasticity of demand facing one type of car producer will increase if the elasticity of supply of the other producers of cars is increased.

16. Consumer surplus is measured as the area below the uncompensated demand curve for a good less the amount the consumer pays for the good.

17. An inferior good may lead to a situation where two goods are gross substitutes while at the same time have a compensated cross elasticity of demand that indicates they are complements.

18. The expenditure function expresses the level of utility as a function of the level of total expenditures.

19. If the compensated cross-price elasticity of demand for good X with respect to the price of Y is +1.2 then the uncompensated cross price elasticity of demand for X with respect to the price of Y must be less than +1.2 if X is a normal good.

20. The income elasticity of demand for a good X is equal to average propensity to consume divided by the marginal propensity to consume of the good.

21. A profit-maximizing firm will always minimize costs.

22. Two goods are said to be gross substitutes when their uncompensated own-price elasticities are negative and their uncompensated cross price elasticities are all positive.

23. If diesel fuel is one of the inputs into the production of electricity, then its marginal physical product in that activity will be independent of the prices of other factors of production.

24. If the marginal propensity to consume a commodity is equal to 0.2, the compensated own price elasticity of demand for that commodity cannot be less, in absolute value, than 0.2.

25. If one good in a consumer’s budget is inferior, then at least one another good must be a luxury.

26. In the long-run competitive equilibrium for an industry, all firms produce at the same average cost.

27. Long-run marginal cost is always below short-run marginal cost.

28. Capital and labor are used to produce a certain product. A decrease in the price of labor will mean that ratio of capital to labor in production will fall.

29. Technical progress means that more output can be produced for same total cost.
30. The dead weight loss of maintaining a high price for cheese in North Cyprus will always be lower if the government restricts the number of milk producing animals in the country than if it subsidizes the consumers to eat more cheese.

31. A consumer’s utility function containing two goods X and Y yields a set of indifference curves that are straight lines. Thus goods X and Y must be perfect complements.

32. The short –run supply curve of a competitive industry is defined by the sum of the quantities supplied by the firms in the industry when they are operating at the point of their minimum short run average costs.

33. A low elasticity of substitution between K and L means that relative prices of capital and labor (w/v) need to change by a large amount to change the ratio of (K/L) by a small amount.

34. It is impossible for the average productivity of labor to be increasing while the marginal product of labor is falling.

35. The observation of constant marginal costs in the long run for a competitive industry is consistent with increasing returns to scale being experienced at some point by firms in the industry.

36. The size of the own-price elasticity of demand of a tradable good facing competition from other domestic producers will be greater the larger is the elasticity of supply of other producers.

37. The larger (in absolute value) is the own-price elasticity of demand for the good, and the smaller is its price elasticity of supply the smaller will be the dead weight loss created by tax of K percent on price of the good.

38. The dead weight loss created by providing a subsidy of 10 percent of the market price to suppliers in a market will always be greater than the deadweight loss of imposing a tax of 10 percent on the market price paid by demanders in the same market.

39. Short run marginal and average costs of a firm will always be greater than its long run marginal and average costs.

40. A composite good is one where the quantities of the items that make up the composite good all move by the same percentage amount when their prices all change by same percentage.

41. To employ a factor of production efficiently a firm will set the value of the marginal product of each factor equal to the marginal expense of the factor to the firm.

42. If the price of an inferior good is raised the quantity demanded of the good will increase.

43. The supply curve of a competitive industry in the long run will be determined by the shape of the long run marginal cost curves of the individual firms in the industry.

44. A good cannot have a negative *income elasticity* at all price levels.

45. Prices inflate, but not identically for each good, and a pensioner, Lucy, who receives a fixed amount of money annually from the government, has her annual pension adjusted such that she can continue to consume the same bundle she was consuming as before the inflation. This is known as *compensating variation* and the person remains as well off as she was before.

46. Charlie has a *marginal rate of substitution* of twinkies for coca-cola (MRS_{TC}) of 3 and is currently consuming 3 twinkies and 1 coke. Keith has a MRS_{TC} of 3 as well and he consumes 6 twinkies and 1 coke. Charlie is worse off than Keith.

47. A *homothetic* utility function results in a Marshallian demand which is homogeneous of degree zero in income.

48. If we think of food as an aggregate good, then the Marshallian demand is more price responsive relative to *Hicksian demand* in a less developed country than a developed country for your average person.

49. Twinkies are a normal good for Kerstin and her own (gross) price elasticity of twinkies at present consumption is positive. All other goods must be substitutes.

50. Consumers share more of the burden of the tax than producers when demand is price inelastic.

51. In a decreasing cost industry each firm has increasing returns to scale.

52. The fact that excess nitrogen fertilizer can reduce crop yield is an example of decreasing returns to scale.

53. The Slutsky equation shows that the Hicksian (compensated) demand curve is always steeper than the Marshallian (ordinary) demand curve.

54. The Slutsky equation holds for both Slutsky and Hicks compensated price changes.

55. For inferior goods, demand curves are upward-sloping.