# Assorted - True False Explain ECON 6500 

## 1 Consumer Theory

1. All inferior goods are Giffen goods.
2. All Giffen goods are inferior goods.
3. If the income elasticity of a good is negative, the demand curve of that curve must be negatively sloped.
4. If, at the utility maximizing bundle of good 2 and good 1 , the MRS of good 2 for good 1 is greater than $\mathrm{p} 1 / \mathrm{p} 2$, then good 1 is an inessential good.
5. Suppose that an individual consumes only two goods, good 1 and good 2 . If the price of good 1 rises, with all else constant, and the price elasticity of demand for good 1 is -0.7 , then the quantity of good 2 will increase.
6. If an individual's income is the same before and after an excise tax is imposed on good 1 and the demand for good 1 is elastic, the excise tax will lead to an increase in spending on other consumer goods.
7. Since a decrease in the price of one unit along a linear demand curve will result in an increase in the quantity demanded by a constant amount, the price elasticity is constant for all quantities along a linear demand curve.
8. Let good 1 be on the horizontal axis, and let the quantity of the composite commodity be on the vertical axis. Then, if the (absolute value of the) price elasticity of demand for good 1 is less than 1 , the price consumption line is negatively sloped.
9. Along a consumer's budget line, money income is constant.
10. A commodity bundle lying below a consumer's budget line must be inferior to all bundles lying on the budget line.
11. Assume that a certain individual consumes only goods 1 and 2 . If the prices of good 1 and good 2 double and his income doubles, then the quantity demanded for goods 1 and 2 will not change.
12. If a decline in the prices of agricultural products results in a reduction in the consumption of these goods by farmers, then these products must be inferior goods.
13. In a two good world, if the price of good X falls and the quantity of X consumed remains the same, then X is neither a normal or inferior good.
14. An exact measure of the individual's willingness to pay for the opportunity to purchase an automobile at some price is the consumer surplus.
15. If the substitution effect is zero, then an individual will be indifferent between a subsidy on each unit consumed of some good and a lump-sum cash subsidy that costs the government an equal amount of money.
16. A two-part tariff on some good that laves a consumer at the same level of utility as received under a simple per-unit price is always more profitable for the firm selling the product.
17. If the government can subsidize a low-income family with a subsidy on clothing or with a lump-sum cash transfer, and both programs are equally costly to the government, then the family will be better off with the subsidy on clothing.
18. If the government wants to increase its revenue through a tax on some good, then it can collect more revenue through a lump sum tax than through a per-unit tax that would leave the individual at the same utility level.
19. The higher the price of a good, the larger the Consumer Surplus associated with that good will be.

## 2 Production and Costs

1. If marginal product is decreasing, then average product must also be decreasing.
2. For a fixed-proportion technology, inputs cannot be substituted for each other in production.
3. The marginal product of input 1 derived from the production function $y=\min \left[a z_{1}, b z_{2}\right]$, diminishes for increases in input 1.
4. If the average product is declining, then average total cost must be increasing.
5. The short-run is that period of time during which some inputs cannot be varied.
6. The slope of the short-run total cost curve equals the slope of the short-run variable cost curve at every output.
7. Average fixed costs are constant for all output levels.
8. The total cost curve has the same slope as the total variable cost curve at every levelof output.
9. When marginal cost is at a minimum then marginal product must be at a maximum.
10. The slope of the total cost curve equals the slope of the total variable cost curve at every level of output.
11. The slope of the average total cost curve equals the slope of the average variable cost curve at every level of output.
12. If marginal cost is increasing then the average total cost must be increasing.
13. If average variable cost is rising then average total cost must be rising.
14. If average product of a single variable input is declining, then short run average total cost must be rising.
15. If L is the only variable factor used in the production of $\mathrm{Q}, M P_{L}=4$ and $w=5$, then the marginal cost of Q is $\$ 0.80$.
16. If the total product of a variable factor is increasing, then the average product of a variable factor must be increasing.
17. Suppose a firm uses one variable input. If marginal cost equals average total cost, then marginal product equals average product.
18. If marginal product is falling then average product must be falling.
19. To minimize the cost of producing a given quantity of output, the input bundle must be chosen so that the marginal products of all inputs are identical
20. Given the short run production function $q=20 L^{2}-L^{3}$, and a wage of $\$ 10$, when $L=10$ marginal cost is $\$ 0.10$
21. A firm has the production function $q=z_{1}^{2} z_{2}$. If $w_{1}=w_{2}$, then the cost minimizing
22. bundle requires the firm to use twice as much $z_{1}$ as $z_{2}$.
23. If average total cost is rising then average variable cost must be rising.

## 3 Perfect Competition

1. Since long-run economic profits for a competitive firm are always zero, it will never pay acompetitive firm to adopt a cost reducing innovation.
2. If a lump sum tax is placed on firms in a competitive industry, the entire tax will be passed on to the consumers in the form of a higher price in the short-run, but none of the tax will be passed on to the consumers in the long-run.
3. If all firms minimize costs and face the same input prices but different production functions, then all firms will use inputs in the same proportion.
4. The horizontal summation of the LMC curves of individual firms is not the long run supply curve for the industry.
5. Although high fixed costs may be the cause of pure economic losses, they can never be the reason for closing down.
6. If perfectly competitive firms are making pure economic profits then, in the long run, we can expect that the equilibrium price will fall, the quantity supplied in the market will rise, and the it output per firm will fall. (assume constant cost industry)
7. Since every firm in a competitive industry earns zero economic profit in long run equilibrium, a fall in market price would mean no firms at all could continue to survive in the long run.
8. In a perfectly competitive, increasing cost industry, if the government imposes a per-unit tax of $\$ 1$, then the long run equilibrium price will rise by more than $\$ 1$
9. Although high fixed costs may be the cause of pure economic losses, they can never be the reason for closing down.
10. If perfectly competitive firms are making pure economic profits then, in the long run, we can expect that the equilibrium price will fall, the quantity supplied in the market will rise, and the output per firm will fall. (assume constant cost industry)
11. If a per unit tax is placed on a perfectly competitive, decreasing cost industry, in the long run the price will rise by more than the tax.
12. The short run supply curve of a competitive firm tends to slope upwards from left to right because of the law of diminishing returns.
13. If a per unit production tax is levied on a competitive industry in which all firms are identical, some firms will leave the industry but the output of those remaining will be unchanged.
14. Since every firm in a competitive industry earns zero economic profit in long run equilibrium, a fall in market price would mean no firms at all could continue to survive in the long run.
15. If a competitive firm is maximizing average (per unit) profit, the firm must be maximizing its total profit.
16. If a perfectly competitive firm is making pure economic profit then, in the long run, the firm's output will fall but the industry output will rise.
17. The long-run price of wheat under a lump sum subsidy paid to wheat farmers will be higher than the price under a per-unit subsidy paid to wheat farmers if the total subsidies paid to each farmer are equivalent under the two subsidy arrangements.
18. The horizontal summation of the long run marginal cost curves of individual firms is not the long run supply curve for the industry.

## 4 Monopoly

1. Starting at some long run equilibrium, if the demand for a monopolist's product falls, the price will fall more in the long run than the short run.
2. An ordinary monopolist who doesn't face any threat of entry will always operate on the elastic portion of his demand curve.
3. In comparing long run equilibrium between perfect competition and monopoly, one can say that the monopolist would be willing to sell more at the equilibrium price whereas the competitive firm is not willing to sell any further units at the equilibrium price.
4. Falling average total cost over the range of output that equals market demand is sufficient to produce a natural monopoly.
5. While high fixed costs serve as a barrier to entry, high sunk costs do not.
6. If an unregulated monopolist is making zero profit then it must be true that price equals minimum average total cost
7. A monopolist faces the following demand curve: $p=20-2 q$. If he has constant marginal cost of $\$ 4$ and fixed cost of $\$ 30$, then the monopolist makes a profit of $\$ 64$.

## 5 Oligopoly

1. If an industry has fixed setup costs which are completely recoverable at full value, then, in equilibrium, if the industry is supplied by a monopolist, price must equal average total cost.
2. The larger the setup costs faced by an entrant, the larger will be the limit output chosen by the incumbent firm.
3. If setup costs of entering an industry are significant, then the established firms may make pure profit in long run equilibrium.
4. Bertrand pricing behavior in combination with a positive setup cost is sufficient to deter entry even when there is just one established firm.
5. If each member of a Cournot duopoly is maximizing his own profit then the industry profit is also being maximized.
6. Industry output in a duopoly model of Cournot behavior exceeds the industry output under collusive behavior.
