

QUIZ 3: ANSWERS AT END

YOUR NAME: _____

EE/Econ 458

Quiz 3: 6 Questions (6 Points Total)

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- Q1. In any given production planning period, FIXED COSTS can be decomposed into two types: _____.
- A. variable fixed costs and sunk costs
 - B. average fixed costs and total costs
 - C. avoidable fixed costs and sunk costs
 - D. marginal fixed costs and average costs
- Q2. In any given planning period T , a producer should plan to produce a positive output q^* (as opposed to shutting down) if _____.
- A. his marginal cost at q^* equals the market price.
 - B. his marginal cost at q^* equals his marginal revenue at q^* .
 - C. his variable costs at q^* are at least as great as his fixed costs .
 - D. his revenues from sale of q^* exceed his avoidable costs at q^* .
 - E. his revenues from sale of q^* exceed his fixed costs at q^* .
- Q3. By definition, a FUTURES CONTRACT is _____.
- A. a bet between two parties regarding a future event that does not involve any physical delivery.
 - B. a personalized contract between parties for the future delivery of something of value at a pre-determined price.
 - C. a standardized contract between parties for the future delivery of some commodity at a pre-determined price.
 - D. a contract between two parties involving the purchase or sale of special financial assets called “futures.”

- Q4. By definition, a key **DISTINCTION** between an investor and a speculator is that an investor _____ whereas a speculator _____.
- A. is risk averse; is not risk averse.
 - B. knows exactly what payoffs will result from his decisions; is unsure of the payoffs that will result from his decisions.
 - C. only buys physical assets; only buys financial assets.
 - D. seeks profits from the lending of his own assets; seeks to profit from anticipated future price changes by engaging in one or more commodity trades.
- Q5. A common characteristic of all **ECONOMIC DISPATCH** problems in power economics that assume loss-less line transmission is that _____.
- A. the total amount of generated power is constrained to equal the total demand for power.
 - B. the objective is the maximization of net buyer and seller surplus.
 - C. cost functions are required to be quadratic.
 - D. the only way to solve such problems is the Lagrangean method.
- Q6. An important advantage of the Lagrangean method for solving nonlinear programming problems is _____.
- A. the first-order necessary conditions for a point x to be an optimal solution are also sufficient to guarantee that x is an optimal solution.
 - B. the existence of a solution x is always ensured.
 - C. the first-order necessary conditions determine a “price” for each constraint that measures the benefit or cost of making small changes to the constraint constant.
 - D. the objective function is always strictly convex, hence any optimal solution must be unique.

Answers: Q1-C, Q2-D, Q3-C, Q4-D, Q5-A, Q6-C