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| 1. Indifference curves:   |  |  |  | | --- | --- | --- | |  | a. | may sometimes intersect. | |  | b. | are contour lines only of a linear utility function. | |  | c. | are convex if the utility function is quasi-concave. | |  | d. | shift when prices change. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | |

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| 2. For an individual who consumes only two goods, *x* and *y*, the opportunity cost of consuming one more unit of *x* in terms of how much *y* must be given up is reflected by:   |  |  |  | | --- | --- | --- | |  | a. | the individual's marginal rate of substitution. | |  | b. | the market prices of *x* and *y*. | |  | c. | the slope of the individual's indifference curve. | |  | d. | none of the above. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | |

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| 3. If bundles of goods *A* and *B* lie on the same indifference curve, one can assume the individual:   |  |  |  | | --- | --- | --- | |  | a. | prefers bundle *A* to bundle *B*. | |  | b. | prefers bundle *B* to bundle *A*. | |  | c. | enjoys bundle *A* and *B* equally. | |  | d. | bundle *A* contains the same goods as bundle *B*. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | |

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| Questions 4 and 5 refer to an individual whose utility function is given by:  ​  *.* |

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| 4. With this utility function, the bundle (3,2) provides the same utility as the bundle:   |  |  |  | | --- | --- | --- | |  | a. | (2, 3). | |  | b. | (2, 4). | |  | c. | (2, 5). | |  | d. | (3, 3). |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | |

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| 5. For this utility function, the *MRS:*   |  |  |  | | --- | --- | --- | |  | a. | depends on the values of *x* and *y*. | |  | b. | is always 0. | |  | c. | is always 2. | |  | d. | is always 4. |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | |

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| 6. Which of these utility functions represent the same preferences as ?   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. | All of the above represent the same preferences. |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | |

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| 7. If utility is given by , then the person's *MRS* at the point *x* = 5, *y* = 2 is given by:   |  |  |  | | --- | --- | --- | |  | a. | 0.4. | |  | b. | 1.0. | |  | c. | 2.5. | |  | d. | 5.0. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | |

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| 8. If utility is given by , this person's indifference curves are:   |  |  |  | | --- | --- | --- | |  | a. | parabolas. | |  | b. | hyperbolas. | |  | c. | concentric circles. | |  | d. | straight lines. |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | |

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| 9. Which of the following utility functions best represents the idea that two goods, *x* and *y*, are perfect complements?   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | |

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| 10. If an individual's utility function is quasi-concave, his or her *MRS* will:   |  |  |  | | --- | --- | --- | |  | a. | diminish as *x* is substituted for *y*. | |  | b. | increase as *x* is substituted for *y*. | |  | c. | be undefined except in special cases. | |  | d. | always depend only on the ratio of *x* to *y*. |  |  |  | | --- | --- | | *ANSWER:* | a | | *POINTS:* | 1 | |

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| 11. If utility is given by  then the bundle (3, 2) provides the same utility as the bundle:   |  |  |  | | --- | --- | --- | |  | a. | (1, 3). | |  | b. | (2, 3). | |  | c. | (4, 1). | |  | d. | (4, 2). |  |  |  | | --- | --- | | *ANSWER:* | c | | *POINTS:* | 1 | |

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| 12. Which of the following utility functions *would not* be consistent with the notion that *x* and *y* are both "goods" with positive marginal utilities?   |  |  |  | | --- | --- | --- | |  | a. |  | |  | b. |  | |  | c. |  | |  | d. |  |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | |

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| Problems 13 and 14 concern the CES utility function:  . |

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| 13. For this utility function, marginal utilities are:​   |  |  |  | | --- | --- | --- | |  | a. | ​negative for | |  | b. | ​diminishing only for | |  | c. | ​increasing for | |  | d. | ​always positive. |  |  |  | | --- | --- | | *ANSWER:* | d | | *POINTS:* | 1 | |

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| 14. For this utility function smaller values for  imply:​   |  |  |  | | --- | --- | --- | |  | a. | ​increasingly concave indifference curves. | |  | b. | ​increasingly convex indifference curves. | |  | c. | ​indifference curves that are convex, linear, and then concave. | |  | d. | ​indifference curves that are concave, linear, and then convex. |  |  |  | | --- | --- | | *ANSWER:* | b | | *POINTS:* | 1 | |