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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. |

|  |  |
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| *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. |

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| *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*. |

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| *ANSWER:* | c |
| *POINTS:* | 1 |

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

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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: . |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 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 |

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