

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

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

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

Questions 4 and 5 refer to an individual whose utility function is given by:

$$U(x, y) = 4x + 2y.$$

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

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

6. Which of these utility functions represent the same preferences as $U(x, y) = \sqrt{xy}$?

- a. $U(x, y) = 10\sqrt{xy}$

- b. $U(x, y) = xy$
- c. $U(x, y) = \ln x + \ln y$
- d. All of the above represent the same preferences.

ANSWER: d

POINTS: 1

7. If utility is given by $U(x, y) = \sqrt{xy}$, 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

8. If utility is given by $U(x, y) = x^2 + 2xy + y^2$, this person's indifference curves are:

- a. parabolas.
- b. hyperbolas.
- c. concentric circles.
- d. straight lines.

ANSWER: d

POINTS: 1

9. Which of the following utility functions best represents the idea that two goods, x and y , are perfect complements?

- a. $U(x, y) = \sqrt{xy}$
- b. $U(x, y) = x + y$
- c. $U(x, y) = |x - y|$
- d. $U(x, y) = \min(x, y)$

ANSWER: d

POINTS: 1

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

11. If utility is given by $U(x, y) = \min(x, 3y)$ 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

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. $U(x, y) = x^2 y$
- b. $U(x, y) = x + y$
- c. $U(x, y) = x\sqrt{y}$
- d. $U(x, y) = x/y$

ANSWER: d

POINTS: 1

Problems 13 and 14 concern the CES utility function:

$$U(x, y) = \frac{x^\delta}{\delta} + \frac{y^\delta}{\delta} \text{ for } \delta \leq 1, \delta \neq 0 \text{ and } U(x, y) = \ln x + \ln y \text{ for } \delta = 0.$$

13. For this utility function, marginal utilities are:

- a. negative for $\delta < 0$.
- b. diminishing only for $\delta > 0$.
- c. increasing for $\delta > 0$.
- d. always positive.

ANSWER: d

POINTS: 1

14. For this utility function smaller values for δ 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