Chapter 3

Preferences and Utility

1. Indifference curves

   a. are non-intersecting.

   b. are contour lines of a utility function.

   c. are negatively sloped.

   d. all of these are correct.

   ANSWER: d AACSB: NATL – Analytical LOC: Utility and consumer choice

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 these is correct.

   ANSWER: b AACSB: NATL – Analytical LOC: Utility and consumer choice

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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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).

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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 AACSB: NATL – Analytical LOC: Utility and consumer choice

6. Which of the following utility functions represent the same preferences as

$U(x,y) = \sqrt{x \cdot y}$?

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

b. $U(x, y) = x \cdot y$.

c. $U(x, y) = \ln x + \ln y$.

d. All of these represent the same preferences.

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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.

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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.

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

b. $U(x, y) = x + y$.

c. $U(x, y) = |x - y|$.

d. $U(x, y) = \min(x, y)$.

ANSWER: d AACSB: NATL – Analytical LOC: Utility and consumer choice

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 AACSB: NATL – Analytical LOC: Utility and consumer choice

11. If utility is given by $U(x, y) = \text{Min}\ (x, 3y)$ 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 AACSB: NATL – Analytical LOC: Utility and consumer choice

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 AACSB: NATL – Analytical LOC: Utility and consumer choice