File: ch03, Chapter 3: Consumer Preferences and The Concept of Utility

Multiple Choice

1.   The assumption that preferences are complete requires the consumer
        a)   to rank any two baskets.
        b)   to say that basket C is preferred to basket A if basket B is preferred to basket A
                and basket C is preferred to basket B.
        c)   to rank a basket with more units of all goods higher than a basket with fewer units
                of all goods.
        d)   to have a diminishing marginal rate of substitution.

2.   Assume that two baskets A and B lie on the same indifference curve. Assume that
        basket A contains more of good Y than basket B but less of good X than basket B. As
        the consumer moves down and to the right (from basket A to basket B) along his
        indifference curve, total utility
        a)   increases.
        b)   remains constant.
        c)   decreases.
        d)   is ambiguous.

3.   Consumer preferences:
        a)   are fixed exogenously and unchanging in reality.
        b)   indicate how a consumer would rank any two possible baskets of goods, taking
                into account her budget constraint.
        c)   indicate how a consumer would rank any two possible baskets of goods, taking
                into account the current prices of those goods.
        d)   indicate how a consumer would rank any two possible baskets of goods, assuming
                that the baskets were available to the consumer at no cost.

4.   If a consumer is unable to compare two baskets, then this consumer's preferences violate
        which of the following key assumptions?
        a)   Completeness.

b)   Transitivity.
c)   More is better.
d)   Both completeness and transitivity.

5.   Indifference curves that intersect are said to be:
a)   Irrational.
b)   Non-transitive.
c)   Inconsistent with our basic assumptions about preferences.
d)   Complete, but not consistent.

6.   If I prefer steak to burritos, burritos to pasta and pasta to steak:
a)   My preferences are irrational.
b)   My preferences violate the transitivity assumption.
c)   My preferences violate the "more is better assumption.
d)   I must have been exhibiting diminishing marginal utility.

7.   Assume that a consumer prefers watching Yu-Gi-Oh to watching Teen Titans, and that
this same consumer prefers watching Teen Titans to watching Sponge Bob. Further
assume that this same consumer states, "I would prefer to watch Sponge Bob to watching
Yu-Gi-Oh." This consumer's preferences violate which of the following key
assumptions?
a)   Completeness.
b)   Transitivity.
c)   More is better.
d)   Both completeness and transitivity.

8.   If a consumer would rather eat three bars of chocolate than four bars of chocolate, this
consumer's preferences violate which of the following key assumptions?
a)   Completeness.
b)   Transitivity.
c)   More is better.
d)   Both completeness and transitivity.

9.   Wendy is very indecisive. She can't decide whether she should go on a cruise or spend her vacation at her friend's home. Her preferences violate the assumption of:
   a)   Completeness.
   b)   Transitivity.
   c)   More is better.
   d)   Both completeness and transitivity.

10.   The assumption that preferences are transitive requires the consumer
   a)   to rank any two baskets.
   b)   to say that basket C is preferred to basket A if basket B is preferred to basket A and basket C is preferred to basket B.
   c)   to rank a basket with more units of all goods higher than a basket with fewer units of all goods.
   d)   to have a diminishing marginal rate of substitution.

11.   Jacob's estimated utility from pizza is given by 3Z, where Z is the number of pizzas he consumes per month. We can say that:
   a)   Jacob likes pizza better than steak.
   b)   Jacob is a vegetarian.
   c)   Jacob's preferences are transitive.
   d)   Jacob's marginal utility from pizza is constant.

12.   The assumption that more is better requires the consumer
   a)   to rank any two baskets.
   b)   to say that basket C is preferred to basket A if basket B is preferred to basket A and basket C is preferred to basket B.
   c)   to rank a basket with more units of all goods higher than a basket with fewer units of all goods.
   d)   to have a diminishing marginal rate of substitution.

13.   The assumption that more is preferred to less:
   a)   is called transitivity.

     b)   implies that if basket A lies to the northeast of basket B, then basket A is preferred to basket B.

     c)   is called completeness.

     d)   implies that indifference curves are "thick".

14.   John tends to order pizza once or twice a week to his college dorm room. When his parents come to visit, he always asks them to take him to the local steakhouse. Bob is probably suffering from:

     a)   Veganism

     b)   Transitivity.

     c)   Diminishing marginal utility from pizza consumption.

     d)   Completeness and transitivity.

15.   Consider the following three market baskets.

Basket	Good x	Good y
A	2	8
B	10	2
C	6	5

If Basket A and Basket B are on the same indifference curve, preferences satisfy the usual assumptions, and the indifference curves have a diminishing marginal rate of substitution,

     a)   Basket C is preferred to Basket A

     b)   Basket A is preferred to Basket C

     c)   The consumer is indifferent between Basket A and Basket C

     d)   There is not enough information to determine how the consumer would rank Basket A relative to Basket C.

16.   One adhesive having twice the adhesive power of another is an example of

     a)   Ordinal ranking.

     b)   Johnson's theory of adhesivity.

     c)   Cardinal ranking.

     d)   Transitivity.

17.   Identify the truthfulness of the following statements.

      I.   Ordinal utility gives us information about which basket the consumer prefers and quantitative information about the intensity of the preference.

      II.   Cardinal utility gives us information about which basket the consumer prefers but not about the intensity of those preferences.

      a)   Both I and II are true.
      b)   Both I and II are false.
      c)   I is true; II is false.
      d)   I is false; II is true.

18.   Sally likes Jim twice as much as she likes Bob. This is an example of
      a)   ordinal preferences.
      b)   cardinal preferences.
      c)   transitivity.
      d)   diminishing marginal utility.

19.   Marginal utility
      a)   is the ratio of total utility to total consumption.
      b)   is the rate at which total utility changes as the level of consumption rises.
      c)   will always be equal to the product's price.
      d)   tells us nothing; we're only concerned with total utility.

20.   Marginal utility is
      a)   the slope of the total utility function.
      b)   the slope of a ray from the origin to the total utility function.
      c)   always less than average utility.
      d)   always greater than average utility.

21.   Which of the following statements is *false*?
      a)   Marginal utility may be negative.
      b)   Marginal utility is the slope of total utility.
      c)   If the more is better assumption is satisfied, total utility will increase as consumption increases.

d)   If the more is better assumption is satisfied, the marginal utility from consuming the second unit must be greater than the marginal utility from consuming the first unit.

22.   A _____ measures the level of satisfaction that a consumer receives from any basket of goods.
a)   production function.
b)   transformation function.
c)   utility function.
d)   transitivity function.

23.   The principle of diminishing marginal utility implies
a)   indifference curves are concave.
b)   indifference curves are convex.
c)   indifference curves are straight lines.
d)   as your consumption level increases, the marginal utility received from consumption of an additional unit increases.

24.   Which of the following statements is *false*?
a)   Total utility and marginal utility cannot be plotted on the same graph
b)   The marginal utility is the slope of the (total) utility function
c)   Marginal utility is not the slope of total utility
d)   The relationship between total and marginal functions holds for other measures in economics

25.   Which of the following statements best explains the concept of diminishing marginal utility?
a)   As I consume additional ice cream cones, each ice cream cone adds more to my total happiness than the previous one.
b)   I must consume ice cream cones until I have a stomach ache.
c)   As I consume additional ice cream cones, each ice cream cone adds less to my total happiness than the previous one.
d)   I must maximize my consumption of ice cream cones.

26.   Which of the following statements is *false*?
a)   If marginal utility is diminishing, then total utility is increasing but at a decreasing rate.
b)   If marginal utility is diminishing, then total utility is concave.
c)   If marginal utility is negative, then total utility is downward-sloping.
d)   If marginal utility is decreasing, then total utility is decreasing.

27.   When total utility, $U(x)$ is maximized, marginal utility, MU_x is
a)   constant.
b)   rising.
c)   maximized.
d)   zero.

28.   Marginal utility is
a)   always increasing.
b)   maximized when total utility is zero.
c)   the slope of the total utility function.
d)   always decreasing.

29.   Identify the truthfulness of the following statements.
I.   Diminishing marginal utility and increasing total utility are incompatible with each other.
II.   When marginal utility is negative, total utility is decreasing.
a)   Both I and II are true.
b)   Both I and II are false.
c)   I is true; II is false.
d)   I is false; II is true.

30.   If one were to draw indifference curves representing preferences over two varieties of red apples, it is likely that one would draw them as:
a)   almost straight lines.

b)   almost "L-shaped."
c)   positively sloped.
d)   crossing.

31.   A consumer would not generally be represented as deriving utility from:
        a)   the brand name of a product
        b)   the characteristics of a product
        c)   the price of a product
        d)   the packaging of a product

32.   Indifference curves have a negative slope when
        a)   the consumer likes good X but dislikes good Y.
        b)   the consumer likes good Y but dislikes good X.
        c)   the consumer likes both good X and good Y.
        d)   the consumer dislikes both goods.

33.   An illustration of an indifference curve has:
        a)   prices of the goods on the axes.
        b)   quantities of the goods on the axes.
        c)   price on the vertical axis, quantity on the horizontal axis.
        d)   Price on the horizontal axis, quantity on the vertical axis.

34.   If indifference curves are upward sloping, this violates the assumption that preferences
        a)   are complete
        b)   are transitive.
        c)   violates the assumption that more is better
        d)   Upward sloping indifference curves do not violate any of the assumptions about preferences.

35.   An indifference curve represents
        a)   a two-dimensional "slice" of a three-dimensional total utility function.

b)   varying levels of a total utility function.
c)   constant marginal utility.
d)   the slope of marginal utility.

36.   Suppose that $MRS_{x, y} = 10$.
a)   The consumer is willing to substitute 10 units of x for 1 unit of y to leave utility unchanged.
b)   The consumer is willing to substitute 10 units of y for 1 unit of x to leave utility unchanged.
c)   Regardless of prices, the consumer will consume only y.
d)   Regardless of prices, the consumer will consume only x.

37.   Suppose the marginal rate of substitution of x for y is given by
$$MRS_{x, y} = 5x/7y$$
a)   The indifference curves will be bowed away from the origin.
b)   The indifference curves will be bowed in towards the origin.
c)   The indifference curves will be straight lines.
d)   It is not possible to tell the shape of the indifference curves with only this information.

38.   Which of the following statements is true?
a)   Because total utility is constant along an indifference curve, the marginal rate of substitution is also constant.
b)   If an indifference curve is convex, the marginal rate of substitution varies along the curve.
c)   The slope of an indifference curve measures the consumer's marginal rate of substitution.
d)   Both b) and c) are true.

39.   Suppose that a consumer has utility function $U(x, y)$ with $MU_x = 5y^2x$ and $MU_y = 2x^2y$. What is the marginal rate of substitution?
a) $10y^3x^3$
b) $2x/5y$
c) $5y/2x$

d) $5y^2x^2$

40.   Suppose that a consumer has utility function $U = Ax^2y^2$ with $MU_x = 2Ay^2x$ and $MU_y = 2Ax^2y$. Which of the following statements is *false*?
  a)   The marginal utilities are positive.
  b)   The marginal rate of substitution is diminishing.
  c)   The indifference curves are bowed away from the origin.
  d)   The indifference curves are downwards sloping.

41.   Consider the utility function $U = 5x + 3y^2$, which has $MU_x = 5$ and $MU_y = 6y$. The indifference curves for this utility function
  a)   will have a diminishing marginal rate of substitution of x for y as x increases.
  b)   will have a constant marginal rate of substitution of x for y as x increases.
  c)   will have an increasing marginal rate of substitution of x for y as x increases.
  d)   will be straight lines.

42.   Consider the utility function $U = min\ (5x,\ 7y)$. The indifference curves for this utility function will be
  a)   vertical
  b)   horizontal
  c)   upward sloping
  d)   L-shaped

43.   Consider the utility function $U = min\ (5x,\ 7y)$. To increase satisfaction the consumer must consume
  a)   at least 5 units more of x
  b)   at least 7 units more of y
  c)   more of both x and y
  d)   more of either x or y

44.   Suppose for some utility function that $MU_x = 5y$ and $MU_y = 7x$

a)   The assumption that more is better is satisfied for both goods.
b)   This utility function will violate the assumption that preferences are complete.
c)   The indifference curves for this utility function will be straight lines with a slope of –1.
d)   The indifference curves will have a diminishing marginal rate of substitution.

45.   Suppose that a consumer has the utility function $U = 5X + 7Y$. The $MRS_{x,y}$ is
a)   7/5
b)   5/7
c)   1.00 since X and Y are perfect substitutes.
d)   0 since X and Y are perfect complements.

46.   Suppose that a consumer has the utility function $U = 5A + 7B$. If A is measured on the horizontal axis
a)   The indifference curves will be L-shaped.
b)   The indifference curves will be horizontal.
c)   The indifference curves will be straight lines with slope –5/7.
d)   The indifference curves will be straight lines with slope –7/5.

47.   Two goods are perfect substitutes. The marginal rate of substitution for these two goods is:
a)   parabolic.
b)   exponential.
c)   a constant.
d)   shows diminishing marginal utility.

48.   Consider the utility function $U = 5x + 3y^2$, which has $MU_x = 5$ and $MU_y = 6y$. The indifference curves for this utility function
a)   will be straight lines.
b)   will have the same $MRS_{x,y}$ as y increases holding x constant.
c)   will have the same $MRS_{x,y}$ as x increases holding y constant.
d)   will have a diminishing marginal rate of substitution as the consumer substitutes x for y.

49.   Suppose for a utility function that the marginal utility for good x is given by
$$MU_x = 5y^2/x$$
        a)   The more is better assumption is not satisfied for x in this utility function.
        b)   The more is better assumption is satisfied for x in this utility function.
        c)   This shows a positive and increasing marginal utility of x.
        d)   The marginal rate of substitution must be diminishing.

                                                                                                        ,

50.   Economists sometimes represent two goods as having right-angled indifference curves
        (perfect complements). In reality, this violates:
        a)   the assumption of transitivity.
        b)   the assumption of completeness.
        c)   the law of diminishing returns.
        d)   the "more is better" assumption.

51.   If $MRS_{x,y}$ is constant at 5, then which of the following is *false*?
        a)   The slope of the indifference curve is positive.
        b)   The goods are perfect substitutes.
        c)   The indifference curves are linear.
        d)   The slope of the indifference curve is negative.

52.   Suppose the marginal rate of substitution of x for y is constant for all levels of x and y.
        Goods x and y are
        a)   perfect substitutes.
        b)   perfect complements.
        c)   normal goods.
        d)   inferior goods.

53.   If two goods are perfect substitutes, then
        a)   the marginal rate of substitution is constant.
        b)   the indifference curves are straight lines.

c)   the indifference curves are "L-shaped."
d)   both a) and b) are true.

54.   If two goods are perfect complements, then
a)   the marginal rate of substitution is constant.
b)   the indifference curves are straight lines.
c)   the indifference curves are "L-shaped."
d)   both a) and b) are true.

55.   Given a utility function $U = 3A^2B^3$, which of the following is true?
a) $MU_A = 3A^2$
b) $MU_B = 9A^2B^2$
c)   The marginal rate of substitution cannot be determined.
d)   The marginal utility for each good is negative.

56.   Which of the following utility functions is an example of preferences for perfect substitutes?
a) $U(x,y) = y\sqrt{x}$
b) $U(x,y) = \min\{2x, y\}$
c) $U(x,y) = 3x + 5y$
d) $U(x,y) = 2x^2 + 4y$

57.   Which of the following utility functions is an example of preferences for perfect complements?
a) $U(x,y) = y\sqrt{x}$
b) $U(x,y) = \min\{2x, y\}$
c) $U(x,y) = 3x + 5y$
d) $U(x,y) = 2x^2 + 4y$

58.   Which of the following utility functions is an example of Cobb-Douglas preferences?
       a) $U(x, y) = y\sqrt{x}$
       b) $U(x, y) = \min\{2x, y\}$
       c) $U(x, y) = 3x + 5y$
       d) $U(x, y) = 2x^2 + 4y$

59.   Imagine an indifference curve graph with units of clothing on the y-axis and visits to the neighborhood pizza joint for dinner on the x-axis. If the indifference curves for this individual are negatively sloped but close to horizontal, it means
       a)   the marginal utility from another pizza dinner is high relative to the marginal utility of clothing.
       b)   the marginal utility from another pizza dinner is low relative to the marginal utility of clothing
       c)   this person doesn't like pizza at all.
       d)   this person can spend a lot of money on clothes at times.

60.   Which of the following utility functions is an example of Quasi-linear preferences?
       a) $U(x, y) = y\sqrt{x}$
       b) $U(x, y) = \min\{2x, y\}$
       c) $U(x, y) = 3x + 5y$
       d) $U(x, y) = 2x^2 + 4y$

61.   If a consumer's preferences are quasi-linear, then the consumer's indifference curves will be:
       a)   straight lines.
       b)   "L-shaped."
       c)   concave to the origin.
       d)   parallel.