Practice Questions for Topic 1: Consumer Behaviour

1. Jack is currently maximizing utility by consuming 2 Cokes and 4 pieces of pizza. The marginal utility of the last Coke was 100 and the marginal utility of the last piece of pizza was 50. If the price of a Coke is \$2, the price of a piece of pizza must be

   (a) \$3.00.
   (b) \$1.50.
   (c) \$1.00.
   (d) \$0.50.
   (e) \$2.00.

2. Assume A and B are substitutes, but A and C are complements. If the price of A increases, then the demand for

   (a) both B and C will decrease.
   (b) both B and C will increase.
   (c) B will increase and the demand for C will be unchanged.
   (d) B will increase and the demand for C will decrease.
   (e) B will decrease and the demand for C will increase.

3. If Mark's demand function for Jell-O is $q = 100 - 2p$, his inverse demand function for Jell-O is

   (a) $p = 100 - q$.
   (b) $q = 50 - 0.5p$.
   (c) $p = 50 - 2q$.
   (d) $p = 50 - 0.5q$.
   (e) $p = 100 - 2q$.

4. If the price of tea increases and the demand for sugar decreases, then

   (a) tea and sugar are complements.
   (b) tea is a normal good and sugar is inferior.
   (c) tea and sugar are substitutes.
   (d) tea is an inferior good and sugar is normal.
   (e) tea and sugar are unrelated to each other.

5. A consumer purchases quantities of good A and good B in accordance with the rational spending rule. An increase in the price of good B will cause the consumer to

   (a) buy less B.
   (b) buy more A and less B.
   (c) buy more B and less A.
   (d) do nothing; he is unaffected by the price change.
   (e) buy more of both A and B.

6. The market demand function for blackberries is $q = 100 - 0.1p$. If the price of blackberries is \$100, consumer surplus is

   (a) \$990.
   (b) \$81,000.
   (c) \$900.
   (d) \$40,500.
   (e) \$405.

7. Which of the following would not affect the demand function for beef?

   (a) A widely publicized study which indicates that beef increases one's cholesterol.
   (b) An effective advertising campaign by pork producers.
   (c) An increase in the price of beef.
   (d) An increase in the cost of cattle feed.
   (e) A change in the incomes of potential consumers of beef.

8. Christine is consuming X and Y in utility-maximizing quantities. If the price of X is \$4 and the price of Y is \$2, then the marginal utility of the last unit of X consumed is

   (a) twice that of Y.
   (b) half that of Y.
   (c) the same as that of Y.
   (d) four times that of Y.
   (e) none of the above.

9. Use the following table to answer the question below:

Hamburgers	Total utility
1	60
2	95
3	125
4	?
5	175

Assuming that the law of diminishing marginal utility holds, which of the following would be a possible value for the total utility from consuming 4 hamburgers?

(a) 156.

(b) 140.

(c) 151.

(d) 149.

(e) Both (c) and (d).

10. Suppose that a 5% decrease in the price of a good results in no change in the quantity demanded of that good. At the original price, demand would be categorized as being

(a) perfectly inelastic.

(b) perfectly elastic.

(c) inelastic.

(d) elastic.

(e) unit elastic.

11. A normal good will have an income elasticity that is

(a) negative.

(b) positive.

(c) zero.

(d) less than 1.

(e) greater than 1.

12. The cross price elasticity for cable TV and satellite TV is estimated to be 0.6. This implies cable TV and satellite TV are

    (a) normal goods.
    (b) substitutes.
    (c) elastic goods.
    (d) complements.
    (e) unrelated.

13. Suppose that Jack and Jill are the only potential consumers of buckets. Jack's demand function for buckets is $q = 10 - 2p$, and Jill's inverse demand function for buckets is $p = 5 - q/3$. If the price of buckets is \$4, the quantity of buckets demanded by the market is

    (a) 2,
    (b) 4.
    (c) 5.
    (d) 8.
    (e) 11/3.

14. The inverse demand curve for beer is $p = 20 - 4q$. If beers are placed in a cooler labeled "Free, please help yourself", what is the quantity demanded?

    (a) an infinite amount (since it is free).
    (b) 20.
    (c) 4.
    (d) 5.
    (e) not enough information to tell.

15. Assume that hot dogs and sausages are substitutes. If the price of sausages increases, there will be

    (a) an increase in demand for hot dogs.
    (b) a decrease in quantity demanded for hot dogs.
    (c) an increase in quantity demanded for sausages.
    (d) no change in the demand for hot dogs.
    (e) a decrease in demand for hot dogs.

16. If a 10% increase in the price of orange juice leads to a 5% decrease in quantity demanded, the price elasticity of demand for orange juice at the original price is

    (a) perfectly inelastic.
    (b) inelastic.
    (c) elastic.
    (d) perfectly elastic.
    (e) unit elastic.

17. A newspaper article states the following: "As the price of personal computers continues to fall, demand increases." This statement is inaccurate because a decrease in price will cause

    (a) a decrease in demand.
    (b) an increase in demand.
    (c) a decrease in quantity demanded.
    (d) an increase in quantity demanded.
    (e) no change in quantity demanded.

18. Suppose people who are addicted to crystal meth are "willing to pay anything" to get high. This implies that the price elasticity of demand for crystal meth is

    (a) perfectly elastic.
    (b) inelastic.
    (c) perfectly inelastic.
    (d) elastic.
    (e) unit elastic.

19. Suppose that John's utility function is $u = 100\sqrt{x}$, where x is the quantity of xylophones consumed. John's marginal utility from the 10th xylophone consumed is approximately

    (a) 100.
    (b) 316.
    (c) 10.
    (d) 16.
    (e) 1.

20. Given the inverse demand function, $p = 55 - 5q$, the price elasticity of demand when price is \$20 is approximately

    (a) -1.22.

    (b) -1.01.

    (c) -0.97.

    (d) -0.57.

    (e) -0.33.

21. If the demand function for beets is $q = 5$, the price elasticity of demand is when price is \$2 is

    (a) -10.

    (b) -0.2.

    (c) 0.

    (d) $-\infty$.

    (e) -5.

22. A consumer can allocate her income of \$16 between two goods, tea and coffee. The price of both tea and coffee is \$4. Use the following table to answer the question below:

Bundle of Goods	Total Utility from Tea	Total Utility from Coffee
3 teas, 1 coffee	216	100
2 teas, 2 coffees	162	123
1 tea, 3 coffees	100	139

    The MUPD of the third coffee is

    (a) 16.

    (b) 39.

    (c) 9.75.

    (d) 4.

    (e) 13.5.

23. Yanni's demand function for beef is $q = 100 - 4p$. If the price of beef increases from \$20 to \$21, Yanni would require an increase in income of approximately _____ in order to maintain the same level of total utility.

    (a) \$14
    (b) \$2
    (c) \$21
    (d) \$1
    (e) \$18

24. Use the following table to answer the question below:

Price of A	Quantity of B demanded	Quantity of C demanded
\$100	400	400
120	300	500

    Which of the following is true?

    (a) B and C are both substitutes for A.
    (b) B and C are both complements for A.
    (c) C is a complement to A; B is a complement to A.
    (d) C is a substitute for A; B is a complement to A.
    (e) C is a complement to A; B is a substitute for A.

25. Assume that Cheez Whiz is an inferior good. An increase in consumer incomes will

    (a) increase the quantity of Cheez Whiz demanded.
    (b) decrease the demand for Cheez Whiz.
    (c) not affect the demand for Cheez Whiz.
    (d) decrease the utility of all potential consumers of Cheez Whiz.
    (e) increase the demand for Cheez Whiz.

26. Alana has an income of \$100 which she allocates entirely to wine and cheese. Her total utility from wine is 15 and her total utility from cheese is 20. If the price of both wine and cheese is \$2, we

    (a) cannot say whether or not Alana is maximizing her utility.
    (b) can say that Alana is irrational.
    (c) can say that Alana should buy more cheese and less wine.
    (d) can say that Alana should buy more wine and less cheese.
    (e) can say that Alana is maximizing her utility.

27. The income elasticity of demand for milk is estimated to be 0.9. This implies that milk

    (a) is a normal good.

    (b) has inelastic demand.

    (c) is a superior good.

    (d) has elastic demand.

    (e) is an inferior good.

28. Use the following table to answer the question below:

Price	Quantity demanded
30	0
20	15
10	30
0	45

    The demand function for this good is

    (a) $p = 30 - 1.5q$.

    (b) $q = 30 - p/3$.

    (c) $q = 45 - 2p$.

    (d) $p = 45 - 3q$.

    (e) $q = 45 - 1.5p$.

29. Use the following table to answer the question below:

Corn dogs	Total Utility
0	0
1	400
2	567
3	693

    The marginal utility of the fourth corn dog is

    (a) 126.

    (b) greater than 693.

    (c) between 567 and 693.

    (d) less than 126, but greater than zero.

    (e) negative.

30. Pam can derive utility only from eating chicken wings. She derives marginal utility of 50 from the first chicken wing she consumes, and marginal utility of 21 from the second chicken wing she consumes. If she consumes two chicken wings, what is her total utility?

    (a) 21.
    (b) 71.
    (c) Less than 21.
    (d) More than 71.
    (e) Not enough information to tell.

31. Suppose that a change in the price of a certain good causes a change in consumer surplus. The compensating variation for this price change is

    (a) approximately equal to the original level of consumer surplus.
    (b) exactly equal to the change in consumer surplus.
    (c) approximately equal to the change in consumer surplus.
    (d) exactly equal to the original level of consumer surplus.
    (e) approximately equal to the new level of consumer surplus.

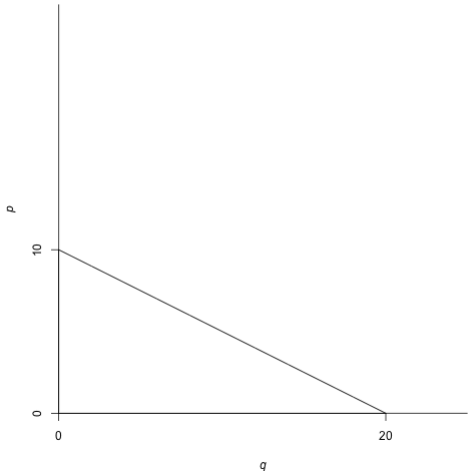
32. Suppose that Jim's demand function for chicken is $q = 50 - 4p$. How much (in total) would Jim be willing to pay for 20 chickens?

    (a) \$30.
    (b) \$20.
    (c) \$150.
    (d) \$50.
    (e) \$80.

33. When economists use the word "utility", they mean

    (a) profit.
    (b) usefulness.
    (c) satisfaction.
    (d) money.
    (e) all of the above.

Use the following figure to answer questions 34-35:



34. The demand function depicted in this figure is

    (a) $p = 10 - 0.5q$.
    (b) $p = 20 - 2q$.
    (c) $q = 10 - 2p$.
    (d) $q = 10 - 0.5p$.
    (e) $q = 20 - 2p$.

35. If the current price is \$8, consumer surplus is

    (a) 16.
    (b) 8.
    (c) 32.
    (d) 20.
    (e) 4.

Answer Key

1. c
2. d
3. d
4. a
5. b
6. d
7. c
8. a
9. c
10. a
11. b
12. d
13. c
14. d
15. a
16. c
17. d
18. c
19. d
20. d
21. c
22. d
23. e
24. d
25. b
26. a
27. a

28. e
29. d
30. b
31. c
32. c
33. c
34. e
35. e