Please Read these instructions carefully

This exam has 50 questions. Make sure you have 50 questions, and answer all 50 questions.

The exam has six questions in it about the structure of the course. For each of these questions you answer, you will be marked correct, no matter how you answer. This gives you 6 correct answers out of 50—for free.

When answering a true/false question ignore the words “true” and “false” on the bubble sheets. That is, sometimes “true” will be bubble A and sometimes “true” will be bubble B.

Make sure to indicate Version A on your bubble sheet.

Note that many of the questions on this exam from or modifications of questions on the Aplia quizzes or on the old exams. So, if a question looks familiar it might, or might not, be identical to a previous question.

Note that this exam is the same exam as 2013 but with a few things cleaned up.

Sometimes what is said in one question might help you to answer another question.

Please read the questions carefully.

1. To produce 10 deep-fried cats one must operate on the isoquant for 10 deep-fried cats.
   A) True
   B) False

2. At my current consumption levels, My wtp for a Diet Coke in terms of chocolate bars is 3. Let d denote diet Cokes and c denote chocolate bars. Therefore my $MRS_{dc}=1/3$ and, with chocolate on the vertical axis and Diet Cokes on the horizontal axis, the slope of my indifference curve at my current level of consumption is -1/3.
   A) True
   B) False
3. There are only two goods: designer jeans and jewelry (nose rings, belly-button rings, etc.). Fredwina, your adolescent relative, is maximizing her utility given her budget constraint. The price of jewelry falls. After this price decrease, Fredwina buys more jeans.
   A) Yes
   B) Maybe
   C) No

4. (If you answer this question it will be marked correct not matter how you answer.) Choose the most appropriate option. I am taking this course
   A) because I wanted to learn about something I knew little about.
   B) because I was interested in economics, and am, or might become, an economics major or minor.
   C) only because I need it to get into the Business school. Otherwise I would not be taking it.
   D) because I was interested in economics. That said, I am not considering becoming an economics major or minor.

5. Suppose Alice consumes only wine and cheese. Alice's income increases, the price of wine decreases, and the price of cheese increases. Consider Alice's budget line with wine on the vertical axis and cheese on the horizontal axis. What will happen to the slope of Alice's budget line?
   A) It becomes flatter.
   B) There is not enough information to tell.
   C) It becomes steeper.
   D) It necessarily remains the same.

6. Fabian wants to get exactly 70% on the final. Fabian produces the exam score using two inputs: hours of study time and milligrams of a drug that helps him to concentrate. Which of the following statements is both necessarily correct and most informative
   A) Fabian will get a 70% score on the exam
   B) His isoquant for producing a 70% result identifies all those combinations of study hours and milligrams of drugs that will just get him a score of 70%.
   C) His isoquant for producing the 70% score identifies all the different ways he would like to achieve a 70% score.
   D) His isoquant for producing a 70% result is the rate at which he can substitute study hours for milligrams of drugs in the production of the 70% score
7. (Modified 2015) Assume China and the U.S. currently have the same levels of pollution, but the U.S. is much richer in terms of goods. Also assume everyone has the same preferences. Which statement is more likely to be correct? (When answering this question it might be useful to picture indifference curves with pollution on the vertical axis and goods on the horizontal axis).
   A) Willingness-to-pay for goods in terms of increased pollution is lower in China
   B) Willingness-to-pay for goods in terms of increased pollution is higher in China.

8. (modified 2015) An individual's budget constraint is determined, in part, by his preferences.
   A) False
   B) True

9. For a competitive firm, the price of what it sells is
   A) endogenous
   B) exogenous

10. Which of the following options best reflects your behavior and opinions. (If you answer this question, it will be marked correct no matter how you answer.)
    A) I have missed a substantial proportion of the recitations for this class. For most of my other classes with recitations, I have missed fewer. I attend fewer econ recitations because I have little interest in economics.
    B) I have attended most of the recitations for this class. Above and beyond Aplia, the book, and the lectures, I have learned from the recitations. In addition they have helped me to answer exam questions.
    C) I have attended most of the recitations for this class. Above and beyond Aplia, the book, and the lectures, I have learned from the recitations but they have not helped me much to answer exam questions.
    D) I have missed a substantial proportion of the recitations for this class. For most of my other classes with recitations, I have missed fewer. I attend fewer econ recitations because attending has not helped my grade nor my understanding of economics.
    E) I have missed a substantial proportion of recitations for this class. I miss a substantial proportion of the lectures and recitations in most of my classes.

11. The isocost line in producer theory is analogous to which of the following from consumer theory?
    A) An indifference curve
    B) An isoquant
    C) A budget line.
    D) None of the above
12. Consider a world of only two commodities: X and Y; both are bads. George's indifference curves must slope downward.
   A) True
   B) False

13. As compared to state-of-the-world A, in state-of-the-world B, everyone has at least as much of every market good, and more of some. Given this, B is necessarily preferred to A.
   A) True
   B) False

14. I agree to meet, during their office hours, at least two of the T.A.s, at least one of which must be an undergraduate T.A. I will come to their office hours asking for help on a specific question or questions from an old exam. At the end of the meeting that T.A. will record, on their list, that you meet with them. These two visits must occur before Friday December 6th end of day. (You will be graded correct on this question no matter how you answer.) In addition if you answer yes and complete the two visits, 1% will be added to you final course grade. If you answer yes to this question and do not complete the two meeting, 1% will be deducted from you final course grade. So, don't answer Yes unless you are committed.
   A) I do not agree to meeting with them, so will not have 1% deducted or added if I do or don't. Of course, I am still free to meet with any T.A.
   B) I agree to meet with two different T.A.s and understand that I will have 1% deducted from my course grade if, for any reason, I do not have the two meeting. And 1% will be added if I have the two meeting.

15. In lecture, professor Morey presented an example where he pays Fred a $1 for every mile she skis. Fred's only cost is the value of her time, always $3 an hour. In order to maximize her profit (net benefit), Fred will ski up the point where her marginal cost equals $3.
   A) True
   B) False
16. Consider a world of only two perfectly divisible goods: anchovies and onions. Currently, Willy's marginal utility from anchovies greater than his is marginal utility from onions. And, anchovies cost more than onions. Willy should:
A) Buy more anchovies and less onions
B) There is not enough information provided to determine what he should do
C) Definitely buy more onions but there is not enough information to determine whether he should be buy less anchovies.
D) Buy more onions and less anchovies

17. (modified 2015) To maximize its profits, a competitive firm must produce it profit-maximizing output at minimum cost.
A) No
B) Yes

18. (modified 2015) Assume, consistent with the facts, that construction of housing in Europe involves more recycling of existing building than in the U.S. where most construction is new construction. This fact alone means Europeans are necessarily more efficient in the production of housing than we are here in the U.S.
A) True
B) False

19. Which of the following options best reflects your behavior and opinions. (If you answer this question, it will be marked correct no matter how you answer.)
A) I have attended most of the lectures for this class. Above and beyond Aplia and the book, I have learned from the lectures. In addition they have helped me to answer exam questions.
B) I have missed a substantial proportion of the lectures for this class. For most of my other classes I have missed fewer lectures. I attend this one less because all of the notes are online.
C) I have attended most of the lectures for this class. Above and beyond Aplia and the book, I have learned from the lectures but the lectures have not helped me much to answer exam questions.
D) I have missed a substantial proportion of the lectures for this class. For most of my other classes I have missed fewer lectures. I attend this one less because I have little interest in economics.
E) I have missed a substantial proportion of lectures for this class. I miss a substantial proportion of the lectures in most of my classes.
F) I have missed a substantial proportion of the lectures for this class. For most of my other classes I have missed fewer lectures. I attend this one less because attending has not helped me to answer exam questions nor improved my understanding of economics.
20. Consider the statement, "The slope of an indifference curve for goods A and B indicates the rate at which the individual substitutes good A for Good B. The slope of a budget line for goods A and B indicates the rate at which the market substitutes good A for Good B." This statement is
   A) False
   B) There is not enough information to determine whether it is true or false.
   C) true

21. Ingrid, when she is in Sweden, and not skiing for CU, consumes only pickled herring and Aquavit (a Swedish type of booze). She loves pickled herring: the more the better, but is indifferent to the amount of Aquavit she drinks. Consider her indifference curves with Aquavit on the vertical axis and herring on the horizontal axis
   A) Ingrid's indifference curves are vertical lines
   B) Ingrid's indifference curves are downward sloping
   C) Ingrid's indifference curves are upward sloping
   D) Ingrid's indifference curves are flat (horizontal lines)

22. "The marginal product of labor in the production of good x, all expressed in percentage changes rather than in terms of quantities," is the same thing as the "labor elasticity of production for good x."
   A) false
   B) true

23. Bubbarina (a small, female Bubba) did not do well on the first midterm because she did not study. She studied a lot for this midterm. She hopes that
   A) the study-time elasticity of her exam score is negative and highly inelastic.
   B) the exam-score elasticity of her study time is positive and highly inelastic.
   C) the study-time elasticity of her exam score is positive and highly elastic.
   D) the exam-score elasticity of her study time is negative and highly elastic.
24. Assume everyone has the same preferences and same state of knowledge for producing food, and the same income. Meals are produced with labor and meat. In Country A the price of meat is high relative to the price of labor. In country B the price of meat and labor are about the same. And, in Country C the price meat is low relative to the price of labor. Assume everything else about these three countries is the same. Which of the following statements is correct?
A) If the relative price of meat in a country reflects it relative scarcity, then to be efficient in production, meals in Country C will have the most meat.
B) Meal production in country C wastes meat--uses meat inefficiently--because they use more meat to produce each meal than do the other two countries.
C) Meal production in Country A wastes time--uses time inefficiently--because more time is spent preparing meals than one needs to spend.

25. Consider the set of bundles that an individual can afford, her "feasible set". If that set expands, (Choose the answer the answer that is both correct and most informative.
A) The expansion cannot make the individual worse off because there are bundles that the individual can afford now that she could not afford before.
B) The expansion cannot make the individual worse off but the reason why is not one of the reasons in the other possible answers.
C) The expansion cannot make the individual worse off because the individual can still choose the bundle she chose before the expansion.
D) The expansion will make the individual better off.

26. If all prices change by the same proportion (all increase or decrease by the same percent), income remaining constant, there will be an "income effect" but no "substitution effect."
A) True
B) False

27. Assume the price elasticity of demand for oil is negative. If at the current price, the price elasticity of demand for oil is ___ than ___, marginally lowering the price will ___ OPEC’s total revenue from the sale of oil.
A) less, -1, increase
B) greater, -1, decrease
C) more than one of the other answers is correct
D) less, -1, decrease
28. (Sam B modified 2015) Joe lives in a world of only commodities hot dogs and hot dog buns. While Sam enjoys bunned hot dogs, his utility does not go up if one adds additional dogs to the bun. And, after surrounding a hot dog with a bun, adding more buns to the meal does not increase his utility.
Joe gets a raise at his job and makes an additional $40 a week. Keeping everything else constant what will happens to Joe's indifference curves for hot dogs and buns (buns on the vertical axis) ____ What do his indifference curves look like? ______
A) Nothing happens to them; The look like the letter "L"
B) not enough information to tell
C) Nothing happens to them; they are downward-sloping straight lines.
D) They keep the same shape but shift (each indifference curve now corresponds to a higher level of utility); They look like the letter "L"

29. When the price of a Lady Gaga concert ticket in Boulder is $100 per seat, the ticket office can sell 10,000 tickets. When the price of a ticket is $150 per seat, they can sell 8,000 tickets. Which of the following statements is true?
A) The demand for this ticket is income inelastic, and so an increase in the price of the ticket will decrease the total revenue of the ticket seller.
B) The demand for this ticket is price inelastic, and so an increase in the price of the ticket will decrease the total revenue of the ticket seller.
C) The demand for this ticket is income inelastic, and so an increase in the price of the ticket will increase the total revenue of the ticket seller.
D) The demand for this ticket is price inelastic, and so an increase in the price of the ticket will increase the total revenue of the ticket seller.

30. Consider Fred, the skier, who Edward uses to present the theory of the competitive firm. Which of the following options best describes how you feel about this example. (You will be marked correct if you answer this question, no matter which option you choose.)
A) The Fred example did not contribute to my understanding of the theory of the competitive firm.
B) I am fine with Fred and understand how his objective and the constraints he faces mimic those of a competitive firm.
C) While I understand the example, please stick with wheat or corn, or some such generic commodity.
D) None of these other options capture what I think about the Fred example.
31. (If you answer this question you will be marked correct no matter how you this answer.) Edward sometimes picks people out of the crowd and either asks them questions or assumes something about them (e.g. they want a 72% on the midterm). Which of the following options best describes your opinion of this practice.
   A) I do not feel strongly about this one way or another.
   B) It is fine with me, even if it is me.
   C) It is fine with me as long as he approaches someone else, but I would die if he approached me.
   D) The practice is not appropriate.

32. (modified 2015) Which of the following can be a constraint?
   A) The amount of time a consumer has in a day (24 hours).
   B) The amount of calories an individual needs to consume per-day to survive.
   C) All of the other options could be constraints
   D) The amount of money an individual has to spend on goods.

33. Which of the following definitions best describes the substitution effect?
   A) The change in an individual's demand for a good due to the change in the price of that good.
   B) The fact that when a price changes the individual makes substitutions
   C) The change in an individual's demand for a good due to the relative price of that good changing, holding utility constant.
   D) The change in an individual's demand for a good due to the change in real income caused by the change in the price of that good.

34. Can a competitive firm produce its profit-maximizing level of output, and not be maximizing it profits?
   A) No
   B) Yes

35. Seth produces and sells widgets. The competitive market price is $10. It is the short-run and he has fixed costs. Seth has two short-run options: produce nothing or produce and sell 1,000 widgets. If he produces 1,000 widgets his average variable cost is $7 and his average fixed cost is $4. What should Seth do?
   A) Produce and sell 1,000 widgets, even though his profits will be negative
   B) Produce and sell zero widgets, even though his profits will be negative
   C) Produce and sell 1,000 widgets, making a profit because price is greater than AVC.
36. Suppose Justin's Candy Factory currently employs five workers who produce candy. With these five workers, the average production of candy is 8 candies per worker. Upon hiring one additional worker, the average production of candy per worker increases to 9 candies. What is the marginal product of the new worker?

A) Not enough information to determine the answer
B) 9
C) 14
D) 54

37. If there are no fixed costs, then the firm's average cost curve and it average variable cost curve are same curves.

A) True
B) False

38. In the longrun, which statement best describes how the competitive firm chooses the input combination it will use to produce its chosen level of output. Choose the answer that is both correct and most informative.

A) It is determined by the isoquant map
B) It is determined by the input prices
C) It is determined by the state of technical knowledge for producing its output and the constraints imposed on the firm by the market.
D) It is determined by its chosen level of output

39. In the theory of the firm, we use "isoquants". Breaking down the term we have "quant" as in "quantity," and "iso" as in "one," meaning every point on an isoquant corresponds to the same quantity. The analogous concept in regards to consumer theory is______.

A) Utility
B) A budget line
C) Preferences
D) An indifference curve

40. An isocost lines identifies all those combinations of inputs that can be purchased for a given amount of the money

A) True
B) False
41. Justin is in college and has $16 a day to spend on food. Given his allergies and intolerance to lactose, he can consume only pesto pizza without cheese, and seaweed salad. The pizza costs $2 a slice and the salad $4 a bowl. Justin belongs to the Church of Skinny which allows one to consume no more than 800 calories per day. Justin is a devout member. Each slice of pizza has 200 calories and each bowl of seaweed has 100 calories. In addition, Justin's mother instructed him to waste no more than one hour a day eating, and Justin obeys his mother. It takes Justin 10 minutes to each a slice of pizza and 15 minutes to knock back a bowl of seaweed salad. If Justin always consumes 800 calories a day (the religious limit), then, per day
A) Justin can consume 4 dishes of salad, and no pizza
B) There is no 800 calorie combination of pizza and salad that Justin afford in terms of time and money.
C) Justin can consume 4 slices of pizza, and no salad
D) Justin can consume a 6 slices of pizza and no salad
E) Justin can consume 3 slices of pizza and 3 salads

42. I'm trying to predict whether or not my roommate will buy more or less milk this week than last week. All he tells me is that his Oreo-price elasticity of demand for milk is always positive. I also know that the price of milk is the same as it was last week. In fact, everything is the same as it was last week, except that the price of Oreos is lower. Given all this, I know, for sure, that
A) There is not enough information to determine whether my roommate will buy more or less milk.
B) My roommate will buy less milk.
C) My roommate will buy more milk.

43. What is the muscle-tone elasticity of time-working-out?
A) The percentage change in the time one works out divided by the percentage change in one's muscle tone.
B) The percentage change in muscle tone divided by the percentage change in the amount of time one works out.
44. Consider a world of two inputs vegetables and butter. The people of Vegland produce vegetables, but must buy their butter from Bovland. Meals in Vegland are vegetables with butter. Meals are the only good consumed. Their meals always consist of some butter and some vegetables. For people in Vegland their isoquants for producing meals (Veg on the vertical axis) are negatively sloped such that the slope decreases in absolute value as the amount of the butter input increases. Bovland suffers a bovine-virus outbreak causing a lot of cows to die, causing the price of butter to rise. The outbreaks have no influence on the price of vegetables in Vegland. Elections in Vegland are coming up, and to assure their reelection, the government gives each household in Vegland some money, just enough for the household to produce the utility they got from meals before the price of butter increased. Given all this, choose the answer that is both correct and most informative.

A) Meals in Vegland will be produced with less butter and more vegetables
B) How meals are produced in Vegland and the number produced will be unaffected.
C) There is not enough information to determine how meals will be prepared in Vegland.
D) Meals in Vegland will be produced with more butter and less vegetables

45. In the Fred lectures, If Fred is being paid $x a mile to ski, and currently it is costing her more than $x to crank out her last mile, to increase her revenue she needs to ski more.

A) True
B) False

46. (modified 2015) Consider a world with only two commodities: beer and bibles. For Wilma, beer is a good, but for Wilma bibles start off as a bad but eventually turns into a good. Consider Wilma's indifference curves with bibles on the horizontal axis. Which statement is both correct and most informative?

A) Her indifference curves are U-shaped (increasing beer consumption from zero, first the slope is negative but then switches to positive)
B) Her indifference curves are shaped like an inverted U or inverted V (increasing bible consumption from zero, first the slope is positive but then switches to negative)
C) Her indifference curves are all downward sloping.
D) Her indifference curves are all upward sloping

47. Consider two different indifference curves, the latter for a higher level of utility than the former. While not likely, it is possible that these two indifference curves intersect.

A) True
B) False
48. George is a competitive firm making candy bars. Inputs are chocolate, c, and sugar, s. The constant \( MRTS_{cs} = \frac{3}{4} \). George will use both chocolate and sugar to produce his candy bars
   A) Unlikely
   B) Likely

49. Chuck spends all his income on two goods: tacos and milkshakes. His income is $100, the price of tacos is $10, and the price of milkshakes is $2. If the price of each good doubles and Chuck's income doubles, which of the following statements is correct?
   A) Chuck will now be able to buy more of both goods.
   B) Chuck's budget line will be unaffected.
   C) Chuck's budget line will shift out.
   D) Chuck's budget line will shift in.

50. Assuming the model (theory) of consumer behavior taught in class and in the book, and assuming all commodities are goods, reducing an individual's budget set will always make the individual worse off.
   A) True
   B) False
Answer Key

1. B
2. B
3. B
4. (No Answer Provided)
5. C
6. B
7. B
8. A
9. B
10. (No Answer Provided)
11. C
12. A
13. B
14. (No Answer Provided)
15. B
16. B
17. B
18. B
19. (No Answer Provided)
20. C
21. A
22. B
23. C
24. A
25. C
26. A
27. C
28. A
29. D
30. (No Answer Provided)
31. (No Answer Provided)
32. C
33. C
34. B
35. A
36. C
37. A
38. C
39. D
40. A
41. C
42. B
43. A
44. A
45. A
46. B
47. B
48. A
49. B
50. B