EC101 DD/EE Midterm 1 October 1, 2015 Version 03

Name (last, first): ________________

Student ID: ________________ Discussion Section: ________________

Signature____________________________________

EC101 DD/EE Midterm 1

INSTRUCTIONS (***Read Carefully***):

ON YOUR QUESTION BOOKLET:
Fill in your name, Student ID, Discussion Section Number (e.g. D5) and your signature.

ON YOUR SCANTRON:
Enter the Course Number (EC101 DD or EE) and date on the lines at the top-left. In the boxes below, enter your Student ID, your DISCUSSION SECTION number (D1 - D9, E0 - E9), your NAME and your EXAM VERSION into the Scantron computer sheet. Be sure that you “bubble” all entries. I will subtract up to 5 points as punishment for errors in these data!

DURING THE EXAM:
Students who wish to leave the room for any reason must leave the Question Booklet and Scantron sheet with the instructor or teaching fellow. Students in EC101DD MUST turn in both the Question Booklet and the Scantron sheet at the end of the exam and exit from the front of the room. Students in EC101EE should keep their Question Booklet and turn in only their Scantrons. All students must show their BU Student IDs as they leave the exam room.

MULTIPLE-CHOICE QUESTIONS:
Choose the BEST answer for each of the multiple-choice questions. (Only ONE answer is allowed, even when more than one of the answers is technically correct.) On the Question Booklet, CIRCLE the letter that you chose, so that you have a record of your answers. Then BUBBLE it on the Scantron sheet for grading.

Never cross out an answer on your Scantron. Use a pencil to bubble your answers, and keep a good eraser with you. If you bubble the wrong answer on the Scantron, erase your mark COMPLETELY, and then bubble the correct answer.

***YOU MAY NOT USE A CALCULATOR, CELL PHONE OR LAPTOP.

***However, INTERNATIONAL STUDENTS may use electronic translators or dictionaries.

You have 60 minutes to complete the exam. Good luck!

DO NOT OPEN THIS BOOKLET OR TURN IT OVER [until told to do so]
1. Paper money can function only if it is
   a. widely accepted.
   b. monetized by banks.
   c. backed by gold.
   d. printed by the government.

2. Which of the following is not a capital good?
   a. a robot in an automobile factory
   b. trust in other people
   c. electric power used in production
   d. experience as an architect

3. Most Americans eat bread with butter. The
   cross-price elasticity of demand for bread and butter is
   likely to be
   a. zero.
   b. negative.
   c. infinite.
   d. positive.

4. The short-run elasticity of supply of medical services
   in the US is low because
   a. it takes a long time to train doctors and nurses.
   b. most people cannot afford the high cost of
      medicine.
   c. modern medical equipment is expensive.
   d. many people do not have medical insurance.

5. Which of the following comes closest to perfect
   competition?
   a. supermarkets (for food and related items)
   b. department stores in Tokyo
   c. the sale and purchase of apartments in Mumbai
   d. the market for soy-bean oil

6. The demand for a good will be more elastic,
   a. the greater the availability of close substitutes.
   b. the more it is regarded as a necessity.
   c. the lower the cost of production.
   d. the shorter the period of time.

7. Which of the following is an advantage of selling and
   buying as compared with barter?
   a. Selling and buying is more difficult to tax.
   b. Selling and buying yields prices that measure
      value.
   c. Selling and buying is a two-step process.
   d. Selling and buying requires more markets than
      barter does.

8. The term “perfect competition” refers to
   a. the British industrial revolution.
   b. the economies of many countries.
   c. an economic model.
   d. NONE of the above

Figure MEQ. Supply and Demand

9. See Figure MEQ. At a price of $20,
   a. there would be excess demand, but it is
      impossible to know by how much.
   b. There would be excess supply, but it is
      impossible to know by how much.
   c. the market would be in equilibrium.
   d. there would be excess supply of approximately
      25 units.
   e. there would be excess demand of
      approximately 25 units.

10. See Figure MEQ. Suppose all the sellers in this
    market started out asking for a price of $45 per unit.
    What is the most likely result?
    a. They would be forced to lower their prices
       because at $45 there would be excess supply.
    b. They would all make a large profit because $45
       is more than the equilibrium price.
    c. They would all just break even because $45 is
       the cost of production.
    d. They would be forced to raise their prices
       because at $45 there would be excess demand.

11. Monica bought an iPod that came with a $10 rebate
    form (for a $10 refund). Monica should fill out and
    mail in the form if
    a. $10 is more than 10% of the price of the iPod.
    b. only if she would not have bought the iPod
       without the rebate.
    c. the opportunity cost of the time required is
       more than $10.
    d. the opportunity cost of the time required is less
       than $10.
12. As compared with the real world, economic models
   a. are simpler.
   b. use more data.
   c. are more difficult to analyze.
   d. are less political.

Scenario HCW. Suppose farmers start injecting cows with a hormone that causes them to give more milk. Then, the government announces that people who drink the milk from the hormone-treated cows will be healthier and live longer.

[You may draw in the space below to help you answer the following questions. The drawing will NOT be graded.]

13. See Scenario HCW. The supply curve for milk will
   a. be unaffected.
   b. shift left.
   c. rotate.
   d. shift right.

14. See Scenario HCW. The demand curve for milk will
   a. stay in the same position.
   b. rotate.
   c. shift right.
   d. shift left.

15. See Scenario HCW. The equilibrium quantity of milk purchased
   a. could increase or decrease.
   b. will increase.
   c. will decrease.
   d. will not change.

16. See Scenario HCW. The equilibrium price of milk
   a. could increase or decrease.
   b. will increase.
   c. will decrease.
   d. will not change.

17. If, at the current price, there is a shortage of a good,
   a. sellers are producing more than buyers wish to buy.
   b. the market must be in equilibrium.
   c. the price is below the equilibrium price.
   d. quantity demanded equals quantity supplied.

18. In the United States, the price elasticity of supply of cotton is .3 in the short run and 1.0 in the long run. This difference could be explained by the fact that
   a. most cotton clothing is imported from China.
   b. it takes several years to prepare land for growing cotton.
   c. harvesting cotton is expensive.
   d. people don’t replace their clothing quickly.

19. Arbitrage in the copper market is most likely to occur when
   a. copper demand is unusually high.
   b. copper is selling at different prices in different places.
   c. copper mining is very profitable.
   d. new copper mines have been opened.

20. The own-price elasticity of an upward sloping supply curve
   a. is always negative.
   b. is always positive (but not always 1).
   c. is always 1.
   d. can be either positive or negative.

21. Capital formation is difficult in poor countries, because
   a. they lack advanced technologies.
   b. most poor countries are undemocratic.
   c. they cannot reduce their already low level of consumption.
   d. they cannot increase their money supply with creating inflation.

22. Which of the following is most likely to be used as an intermediate good?
   a. a roll of cloth
   b. a locomotive
   c. a factory building
   d. an iPod

23. The market supply curve of rice contains information about
   a. consumer trends in the market for rice.
   b. how much rice producers would want to sell at various prices.
   c. the health effects of rice consumption.
   d. the quantity of rice that will be sold.
24. **See Figure DSA.** The quantity of apples supplied at a price of $4 is
a. 600.
b. 0.
c. 300.
d. 200.

25. **See Figure DSA.** At a price of $6, there would be:
   a. a shortage of 500 apples.
   b. a surplus of 200 apples.
   c. a shortage of 200 apples.
   d. a surplus of $4.

26. **See Figure DSA.** Which of the following is a good approximation of elasticity of demand when the price changes from $5 to $4?
   a. $\frac{-4}{5}$
   b. $\frac{-1}{50}$
   c. $\frac{-5}{4}$
   d. $-50$

27. **See Figure DSA.** Suppose the price changes from $9 to $10, and suppose the price elasticity of demand is $-1$. Then the new quantity demanded would be approximately
   a. 0.
   b. 100.
   c. 89.
   d. 50.

28. The supply curve of peanuts could shift to the left because of
   a. bad weather.
   b. an advertisement showing happy children eating peanuts.
   c. an increase in the price of peanuts.
   d. a report that peanuts prevent liver disease.

29. Compared to a person who earns a minimum wage, a person who earns $40 per hour has
   a. a lower opportunity cost of working longer hours.
   b. a lower opportunity cost of driving farther to work.
   c. a higher opportunity cost of taking a day off.
   d. the same opportunity cost of spending time on leisure activities.

30. Two different prices cannot prevail in a perfectly competitive market, because
   a. it is illegal to charge two different prices for the same commodity.
   b. at least one buyer and one seller could set a price that would make them better off.
   c. the established value of money permits only one price.
   d. money is legal tender.

31. If the price elasticity of demand for a good is $-4.0$, then a 10 percent increase in price results in a
   a. 2.5 percent decrease in the quantity demanded.
   b. 0.4 percent decrease in the quantity demanded.
   c. 4 percent decrease in the quantity demanded.
   d. 40 percent decrease in the quantity demanded.

32. If Julie and Sarah buy rice for the same price, but Julie is willing to pay more for rice than Sarah is, then
   a. Sarah does not have full information about the quality of rice.
   b. rice is an inferior good for Sarah.
   c. exchange is not voluntary.
   d. Julie will get more consumer surplus from rice than Sarah will.

33. When per capita income falls from $25,000 to $20,000, the quantity of potatoes demanded by consumers increases by 30%. Then the income elasticity of demand for potatoes is _____.
   a. 1.5
   b. $-1.5$
   c. $-3$
   d. 3

34. Last night you had to study for your economics exam. If you hadn’t been studying, you would have gone to a Red Sox game in Fenway Park with your friends. You also could have watched The Sky Divers on television or eaten dinner with your roommate Anandi. The opportunity cost of studying was
   a. dinner with Anandi.
   b. the Sky Divers.
   c. the Red Sox game.
   d. **ALL** of the above.
35. Suppose the 1st apple gives Kamwing $4 worth of pleasure, the 2nd gives him $3 worth, the 3rd gives him $3 worth, and the 4th $2 worth. If the price of apples is $2.50 each, then how many apples should Kamwing buy?
   a. 1  
   b. 3  
   c. 2  
   d. 4  

36. Which of the following is not necessarily a property of a perfectly competitive market?
   a. Buyers and sellers care about the welfare of the rest of society.
   b. Transactions are voluntary.
   c. Buyers and sellers have complete information about the market.
   d. Buyers and sellers are self-interested.  

37. The price elasticity of demand for widgets is –2. At a price of $10, a store sells 200 widgets per month. The store owner decides that she wants to sell 260 widgets per month. What price should she set?
   a. $4.20
   b. $8.50
   c. $7.00
   d. $9.50

38. Suppose the value of the Shanghai stock-market increases by 500 billion yuan because Chinese investors expect good luck. Then
   a. Chinese per capita income will fall.
   b. Chinese factories will become more productive.
   c. the Chinese GDP will increase by the same amount.
   d. NONE of the above

39. Molasses is a dark syrup that is created during the production of white cane sugar. The cross-price elasticity of supply for molasses and sugar will be
   a. negative.
   b. infinite.
   c. positive.
   d. zero.

40. A shift to the right of the supply curve of milk could be caused by
   a. a report that milk prevents cancer.
   b. a decrease in the price of grain used to feed cows.
   c. a disease that kills cows.
   d. an increase in the income of urban consumers.