1. Macroeconomics does *not* try to answer the question of:
   A) why some countries experience rapid growth.
   B) what is the rate of return on education.
   C) why some countries have high rates of inflation.
   D) what causes recessions and depressions.

2. A typical trend during a recession is that:
   A) the unemployment rate falls.
   B) the popularity of the incumbent president rises.
   C) incomes fall.
   D) the inflation rate rises.

3. Macroeconomics is the study of the:
   A) activities of individual units of the economy.
   B) decisionmaking by households and firms.
   C) economy as a whole.
   D) interaction of firms and households in the marketplace.

4. The study of the economy as a whole is called:
   A) household economics.
   B) business economics.
   C) microeconomics.
   D) macroeconomics.

5. The ability of macroeconomists to predict the future course of economic events:
   A) is no better than a meteorologist's ability to predict the next month's weather.
   B) is much better than a meteorologist's ability to predict the next month's weather.
   C) has gotten worse over time.
   D) is less precise than it was in the 1920s.

6. Which of the combinations listed is *not* a U.S. president and an important economic issue of his administration?
   A) President Carter, inflation
   B) President Reagan, budget deficits
   C) President G. H. W. Bush, budget deficits
   D) President Clinton, inflation

7. *All* of the following are types of macroeconomics data *except* the:
   A) price of a computer.
   B) growth rate of real GDP.
   C) inflation rate.
   D) unemployment rate.

8. *All* of the following *except* _______ are important *macroeconomic* variables.
   A) real GDP
   B) the unemployment rate
   C) the marginal rate of substitution
   D) the inflation rate

9. The total income of everyone in the economy adjusted for the level of base year prices is called:
   A) a recession.
   B) an inflation.
   C) real GDP.
   D) a business fluctuation.

10. A measure of how fast the general level of prices is rising is called the:
    A) growth rate of real GDP.
    B) inflation rate.
    C) unemployment rate.
    D) market-clearing rate.

11. The inflation rate is a measure of how fast:
    A) the total income of the economy is growing.
    B) unemployment in the economy is increasing.
    C) the general level of prices in the economy is rising.
    D) the number of jobs in the economy is expanding.

12. Real GDP ______ over time, and the growth rate of real GDP ______.
    A) grows; fluctuates
    B) is steady; is steady
    C) grows; is steady
    D) is steady; fluctuates

13. Two striking features of a graph of U.S. real GDP per capita over the twentieth century are the:
    A) overall upward trend interrupted by a large downturn due to the economic depression in the 1930s.
    B) nearly constant level with a large downturn in the 1930s.
    C) downward trend in the first half of the century followed by the upward trend in the second half.
    D) constant level in the first half of the century followed by the upward trend in the second half.

14. In the U.S. economy today, real GDP per person, compared with its level in 1900, is about:
    A) 50 percent higher.
    B) twice as high.
    C) three times as high.
    D) eight times as high.

15. Recessions are periods when real GDP:
    A) increases slowly.
    B) increases rapidly.
    C) decreases mildly.
    D) decreases severely.

16. Compared with real GDP during a recession, real GDP during a depression:
    A) increases more rapidly.
    B) increases at approximately the same rate.
    C) decreases at approximately the same rate.
    D) decreases more severely.

17. A severe recession is called a(n):
    A) depression.
    B) deflation.
    C) exogenous event.
    D) market-clearing assumption.

18. The annual inflation rate in the United States averaged:
    A) nearly zero between 1900 and 1950.
    B) nearly zero between 1950 and 2000.
    C) about 10 percent between 1900 and 1950.
    D) about 10 percent between 1950 and 2000.

19. Deflation occurs when:
    A) real GDP decreases.
    B) the unemployment rate decreases.
    C) prices fall.
    D) prices increase but at a slower rate.

20. A period of falling prices is called:
    A) deflation.
    B) inflation.
    C) a depression.
    D) a recession.

21. A graph of the rate of inflation in the United States over the twentieth century shows:
    A) an overall upward trend interrupted by a large downturn in the 1930s.
    B) some periods of deflation mixed with mostly positive rates of inflation before 1955 but only positive rates of inflation after 1955.
    C) a relatively steady, positive level throughout the century except for deflation in the 1930s.
    D) a constant rate of inflation in the first half of the century followed by an upward trend in the second half.

22. A graph of the U.S. unemployment rate over the twentieth century shows:
    A) an overall upward trend in the unemployment rate interrupted by a large upturn in the 1930s.
    B) an overall downward trend in the unemployment rate interrupted by a large upturn in the 1930s.
    C) rates of unemployment always greater than zero with substantial variations from year to year.
    D) alternating periods of positive and negative rates of unemployment.

23. During the period between 1900 and 2000, the unemployment rate in the United States was highest in the:
    A) 1920s.
    B) 1930s.
    C) 1970s.
    D) 1980s.

24. The unemployment rate:
    A) was zero during the 1990s in the United States.
    B) was zero on average between 1900 and 1950 in the United States.
    C) has never been zero in the United States.
    D) is usually zero when the economy is not in a recession or depression.

25. Exogenous variables are:
    A) determined outside the model.
    B) determined within the model.
    C) the outputs of the model.
    D) explained by the model.

26. Endogenous variables are:
    A) fixed at the moment they enter the model.
    B) determined within the model.
    C) the inputs of the model.
    D) from outside the model.

27. In an economic model:
    A) exogenous variables and endogenous variables are both determined outside the model.
    B) endogenous variables and exogenous variables are both determined within the model.
    C) endogenous variables affect exogenous variables.
    D) exogenous variables affect endogenous variables.

28. Variables that a model tries to explain are called:
    A) endogenous.
    B) exogenous.
    C) market clearing.
    D) fixed.

29. Variables that a model takes as given are called:
    A) endogenous.
    B) exogenous.
    C) market clearing.
    D) macroeconomic.

30. Macroeconomic models are used to explain how ______ variables influence ______ variables.
    A) endogenous; exogenous
    B) exogenous; endogenous
    C) microeconomic; macroeconomic
    D) macroeconomic; microeconomic

31. Important characteristics of macroeconomic models include *all* of the following *except*:
    A) simplifying assumptions.
    B) functional relationships based on randomized control trials.
    C) endogenous and exogenous variables.
    D) implicit or explicit consistency with microeconomic foundations.

32. In a simple model of the supply and demand for pizza, the endogenous variables are:
    A) the price of pizza and the price of cheese.
    B) aggregate income and the quantity of pizza sold.
    C) aggregate income and the price of cheese.
    D) the price of pizza and the quantity of pizza sold.

33. In a simple model of the supply and demand for pizza, when buyers' income increases, the price of pizza ______ and the quantity purchased ______.
    A) increases; decreases
    B) increases; increases
    C) decreases; increases
    D) decreases; decreases

34. In a simple model of the supply and demand for pizza, when the price of cheese increases, the price of pizza ______ and the quantity purchased ______.
    A) increases; increases
    B) decreases; increases
    C) decreases; decreases
    D) increases; decreases

35. Which statement below best illustrates the "art," rather than the "science," of macroeconomics?
    A) Macroeconomic data provide the motivation for new macroeconomic theory.
    B) Macroeconomic relationships can be expressed using symbols and equations.
    C) Macroeconomists must determine which simplifying assumptions clarify our thinking and which ones mislead us.
    D) Graphs and charts can be used to illustrate the history of macroeconomic variables.

36. In the relationship expressed in functional form $Y = G(K, L)$, Y stands for real GDP, K stands for the amount of capital in the economy, and L stands for the amount of labor in the economy. In this case $G(\,)$:
    A) is the growth rate of real GDP when the amount of capital and labor in the economy is fixed.
    B) indicates that the variables inside the parentheses are endogenous variables in the model.
    C) is the symbol that stands for government input into the production process.
    D) is the function telling how the variables in the parentheses determine real GDP.

37. Which of the following statements about economic models is *true*?
    A) There is only one correct economic model.
    B) All economic models are based on the same assumptions.
    C) The purpose of economic models is to show how endogenous variables affect exogenous variables.
    D) Economists use different models to address different economic phenomena.

38. Macroeconomic models:
    A) assume that all wages and prices are sticky.
    B) assume that all wages and prices are flexible.
    C) make different assumptions to explain different aspects of the macroeconomy.
    D) focus primarily on the optimizing behavior of households and firms.

39. The assumption of continuous market clearing means that:
    A) sellers can sell all that they want at the going price.
    B) buyers can buy all that they want at the going price.
    C) in any given month, buyers can buy all that they want and sellers can sell all that they want at the going price.
    D) at any given instant, buyers can buy all that they want and sellers can sell all that they want at the going price.

40. *All* of the following statements about sticky prices are true *except*:
    A) in the short run, some wages and prices are sticky.
    B) the sticky-price model describes the equilibrium toward which the economy slowly gravitates.
    C) for studying year-to-year fluctuations, most macroeconomists believe that price stickiness is a better assumption than is price flexibility.
    D) magazine publishers tend to change their newsstand prices only every three or four years.

41. The assumption of flexible prices is a more plausible assumption when applied to price changes that occur:
   A) from minute to minute.
   B) from year to year.
   C) in the long run.
   D) in the short run.

42. An assumption of _______ is more plausible for studying the short-run behavior of the economy, while an assumption of ______ is more plausible for studying the long-run, equilibrium behavior of the economy.
   A) deflation; inflation
   B) inflation; deflation
   C) flexible prices; sticky prices
   D) sticky prices; flexible prices

43. When studying the short-run behavior of the economy, an assumption of ______ is more plausible, whereas when studying the long-run equilibrium behavior of an economy, an assumption of ______ is more plausible.
   A) inflation; unemployment
   B) unemployment; inflation
   C) flexible prices; sticky prices
   D) sticky prices; flexible prices

44. Which of the following is the best example of a sticky price?
   A) the price of a barrel of oil
   B) the price of the U.S. dollar in terms of euros
   C) the price of a share of stock
   D) the price of a soda in a vending machine

45. Which of the following is the best example of a flexible price?
   A) the price of a cup of coffee in a coffee shop
   B) the price of gasoline at a service station
   C) the price of a ticket at a movie theater
   D) the price of a book in a bookstore

46. Macroeconomists are like scientists in that they both:
   A) design data and conduct controlled experiments to test their theories.
   B) rely on data analyzed from experiments they set up in a laboratory.
   C) are unlimited in their use of controlled experiments.
   D) collect data, develop hypotheses, and analyze the results.

47. Using a market-clearing model to analyze the labor market is ______ because wages usually change ______.
    A) realistic; frequently
    B) realistic; infrequently
    C) unrealistic; frequently
    D) unrealistic; infrequently

48. Assume that the equation for demand for bread at a small bakery is $Q^d = 60 - 10P_b + 3Y$, where Q^d is the quantity of bread demanded in loaves and Y is the average income in the town in thousands of dollars.
    a. If the average income in the town is 10, state the equation for Q^d in terms of P_b.
    b. Draw a graph of the demand curve with Q^d on the horizontal axis and P_b on the vertical axis. Label the curve DD.

49. Assume that the equation for demand for bread at a small bakery is $Q^d = 60 - 10P_b + 3Y$, where Q^d is the quantity of bread demanded in loaves, P_b is the price of bread in dollars per loaf, and Y is the average income in the town in thousands of dollars. Assume also that the equation for supply of bread is $Q^s = 30 + 20P_b - 30P_f$, where Q^s is the quantity supplied and P_f is the price of flour in dollars per pound. Assume finally that markets clear, so that $Q^d = Q^s$.
    a. If Y is 10 and P_f is $1, solve mathematically for equilibrium Q and P_b.
    b. If the average income in the town increases to 15, solve for the new equilibrium Q and P_b.

50. The production function for an economy can be expressed as $Y = F(K,L)$, where Y is real GDP, K is the quantity of capital in the economy, and L is the quantity of labor in the economy.
    a. If $F(\ ) = 100 + 3K + 9L$, what is real GDP if the quantity of capital is 200 and the quantity of labor is 500?
    b. What is/are the endogenous variable(s) in this model?
    c. What is/are the exogenous variable(s) in this model?

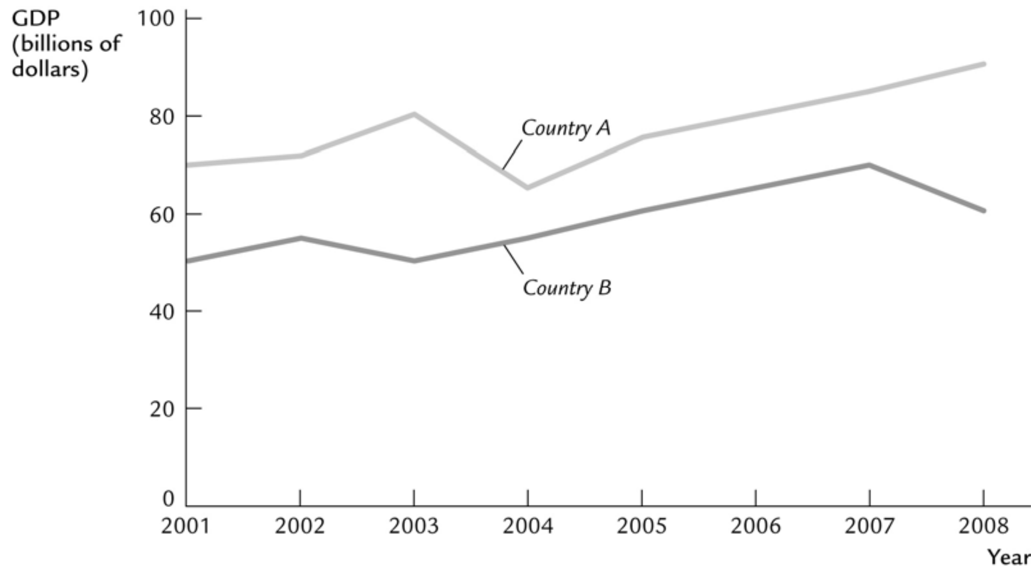
51. The quantity of coffee demanded, Q^d, depends on the price of coffee, P_c, and the price of tea, P_T. The quantity of coffee supplied, Q^s, depends on the price of coffee, P_c, and the price of electricity, P_E , according to the following equation:

$$Q^d = 17 - 2P_c + 10P_T$$
$$Q^s = 2 + 3P_c - 5P_E$$

    a. If the price of tea is $1.00 and the price of electricity is $0.50, what are the equilibrium price and quantity of coffee?
    b. What is/are the endogenous variable(s) in this model?
    c. What is/are the exogenous variable(s) in this model?

52. What is the difference between recession and depression in an economy? Provide an example of depression from the real world that has hit the global economy.

Use the following to answer question 53:



53. Refer to the following graph and identify the years for which Country A and Country B experienced recession.

54. Why do we call macroeconomics an imperfect science? Explain.

55. Are the terms “market clearing” and “equilibrium” one and the same? Explain.

56. Do you agree with the statement “macroeconomics rests on the foundation of microeconomics”? Explain.

57. Give two examples of macroeconomic variables and microeconomic variables.

58. Refer the following table, which shows the quantity of tubes of toothpaste that are demanded at different prices. Identify the price (as shown in the first column below in the table) that represents the market clearing.

Price (US$/tube)	Quantity demanded (thousands of tubes)	Quantity supplied (thousands of tubes)
20	5	20
16	8	16
13	12	12
8	15	8
5	17	5
4	18	3

59. What is the difference between sticky prices and flexible prices? Explain.

60. What is an exogenous variable? Illustrate with graphs the effect of a change in the exogenous variable on a demand and supply relationship. Mark the *x*-axis and *y*-axis clearly.

61. Column A below lists the names of four U.S. presidents, and Column B lists four economic events that occurred during the tenures of those U.S. presidents. Match each president to the economic event that occurred during his tenure.

Column A	**Column B**
1. Jimmy Carter	a. budget surplus
2. Ronald Regan	b. inflation
3. Bill Clinton	c. steep rise in mortgage defaults
4. Barack Obama	d. budget deficit

Answer Key

1. B
2. C
3. C
4. D
5. A
6. D
7. A
8. C
9. C
10. B
11. C
12. A
13. A
14. D
15. C
16. D
17. A
18. A
19. C
20. A
21. B
22. C
23. B
24. C
25. A
26. B
27. D
28. A
29. B
30. B
31. B
32. D
33. B
34. D
35. C
36. D
37. D
38. C
39. D
40. B
41. C
42. D
43. D
44. D

45. B
46. D
47. D
48.
49.
50.
51.
52.
53.
54.
55.
56.
57.
58.
59.
60.
61.