

## CHAPTER 1: Introduction to Macroeconomics

### MULTIPLE CHOICE

1. A central topic of study in macroeconomics is \_\_\_\_\_, while a central topic of study in microeconomics is \_\_\_\_\_.
  - a. the cosmos; particle physics
  - b. the overall performance of an economy; an individual market
  - c. an individual market; the overall performance of an economy
  - d. the overall performance of a single economy; the individual firm
  - e. consumer behavior; firm behavior

ANS: B                      DIF: Easy                      REF: 1.1                      TOP: I.  
MSC: Remembering

2. The three main variables we discuss in the short run are:
  - a. economic fluctuations, interest rates, and unemployment.
  - b. economic fluctuations, inflation, and money.
  - c. economic fluctuations, inflation, and unemployment.
  - d. interest rates, money supply, and taxes.
  - e. economic fluctuations, interest rates, and money.

ANS: C                      DIF: Easy                      REF: 1.1                      TOP: I.  
MSC: Remembering

3. Macroeconomics is to microeconomics what \_\_\_\_\_ is to \_\_\_\_\_.
  - a. cosmology; particle physics
  - b. particle physics; cosmology
  - c. physics; biology
  - d. chemistry; organic chemistry
  - e. biology; zoology

ANS: A                      DIF: Easy                      REF: 1.1                      TOP: I.  
MSC: Applying

4. Which of the following does macroeconomics endeavor to answer?
  - i. Why is the typical person in the United States today more than 10 times richer than the typical person a century ago?
  - ii. Why has the unemployment rate been nearly twice as high in Europe as in the United States in recent years?
  - iii. What determines the rate of inflation? What determines how rapidly the overall price level in an economy increases?
  - a. *i* only
  - b. *i, ii, and iii*
  - c. *ii* only
  - d. *i and ii*
  - e. *ii and iii*

ANS: B                      DIF: Moderate                      REF: 1.1                      TOP: I.  
MSC: Applying

5. Which of the following does macroeconomics NOT endeavor to answer?
  - i. Why is the typical person in the United States today more than 10 times richer than the typical person a century ago?
  - ii. Why has the unemployment rate been nearly twice as high in Europe as in the United States in recent years?
  - iii. Why has the price of orange juice risen sharply?

- a. *ii* and *iii*
- b. *i* only
- c. *ii* only
- d. *i*, *ii*, and *iii*
- e. *iii* only

ANS: E                      DIF: Moderate                      REF: 1.1                      TOP: I.  
MSC: Applying

6. Which of the following does macroeconomics endeavor to answer?
- i.* What role does the government play in recessions, booms, and determining the rate of inflation?
  - ii.* What causes an increase in the price of Exxon stock?
  - iii.* How does a dairy farmer react to rising milk prices?
- a. *i* only
  - b. *ii* only
  - c. *iii* only
  - d. *i*, *ii*, and *iii*
  - e. *ii* and *iii*

ANS: A                      DIF: Moderate                      REF: 1.2                      TOP: II.  
MSC: Applying

7. Which of the following does macroeconomics endeavor to answer?
- i.* How does a dairy farmer react to rising wheat prices?
  - ii.* What causes an increase in the price of Apple stock?
  - iii.* What are potential causes of financial crises?
- a. *i* only
  - b. *ii* only
  - c. *iii* only
  - d. *i*, *ii*, and *iii*
  - e. *ii* and *iii*

ANS: C                      DIF: Moderate                      REF: 1.1                      TOP: II.  
MSC: Applying

8. Which of the following does macroeconomics endeavor to answer?
- i.* What role does the government play in recessions, booms, and determining the rate of inflation?
  - ii.* What caused the currency crises in Mexico in the mid-1990s and in many Asian economies at the end of the 1990s?
  - iii.* How does a dairy farmer react to rising milk prices?
- a. *iii* only
  - b. *ii* only
  - c. *i* and *ii*
  - d. *i*, *ii*, and *iii*
  - e. *i* and *iii*

ANS: C                      DIF: Moderate                      REF: 1.1                      TOP: II.  
MSC: Applying

9. Which of the following lists the four steps we use to study macroeconomic behavior in the correct order?
- a. (1) document the facts; (2) develop a model; (3) compare the predictions of the model to the original facts; and (4) use the model to make other predictions that may eventually be tested
  - b. (1) document the facts; (2) use the model to make other predictions that may eventually be tested; (3) compare the predictions of the model to the original facts; and (4) develop a model
  - c. (1) compare the predictions of the model to the original facts; (2) develop a model; (3) document the facts; and (4) use the model to make other predictions that may eventually be tested

- d. (1) develop a model; (2) document the facts; (3) compare the predictions of the model to the original facts; and (4) use the model to make other predictions that may eventually be tested
- e. None of these answers is correct.

ANS: A                      DIF: Easy                      REF: 1.2                      TOP: II.  
 MSC: Remembering

10. \_\_\_\_\_ are parameters to the model and generally are fixed over time, while \_\_\_\_\_ are the outcomes of the model.
- a. Shocks; parameters
  - b. Endogenous variables; exogenous variables
  - c. Endogenous variables; shocks
  - d. Exogenous variables; endogenous variables
  - e. Parameters; system variables

ANS: D                      DIF: Easy                      REF: 1.2                      TOP: II.  
 MSC: Remembering

11. Which of the following questions should a successful model predict?
- i.* How do changes in government policies change the labor market?
  - ii.* How does money supply influence inflation?
  - iii.* How does investment affect economic growth?
- a. *ii* only
  - b. *i, ii, and iii*
  - c. *iii* only
  - d. *i and ii*
  - e. *i and iii*

ANS: B                      DIF: Moderate                      REF: 1.2                      TOP: II.  
 MSC: Applying

12. Which of the following questions should a successful model predict?
- i.* How do changes in government policies change the labor market?
  - ii.* How does money supply influence inflation?
  - iii.* What is the relationship between inflation and unemployment?
- a. *iii* only
  - b. *ii* only
  - c. *i, ii, and iii*
  - d. *i and ii*
  - e. *i and iii*

ANS: C                      DIF: Moderate                      REF: 1.2                      TOP: II.  
 MSC: Applying

13. Which of the following questions should a successful model predict?
- i.* Why, in general, do Americans have higher incomes than Africans?
  - ii.* How much less unemployment is there during an economic expansion?
  - iii.* Why does the United States have a lower unemployment rate than Europe?
- a. *i and ii*
  - b. *ii* only
  - c. *iii* only
  - d. *i, ii, and iii*
  - e. *i and iii*

ANS: D                      DIF: Moderate                      REF: 1.2                      TOP: II.  
 MSC: Applying

14. Consider the following model of the labor market:

$$\text{Labor supply: } L^s = \bar{\alpha} \times w + \bar{\ell}$$

Labor demand:  $L^d = \bar{f} - w$

The endogenous variables are:

- a.  $\bar{f}$  and  $\bar{a}$ .
- b.  $\bar{a}$  and the equilibrium wage,  $w$ .
- c.  $\bar{f}$  and the equilibrium wage,  $w$ .
- d. the equilibrium quantity of labor,  $L^*$ , and wage,  $w^*$ .
- e.  $\bar{a}$  and the equilibrium quantity of labor,  $L$ .

ANS: D

DIF: Difficult

REF: 1.2

TOP: II.

MSC: Applying

15. Consider the following model of the labor market:

Labor supply:  $L^s = \bar{a} \times w + \bar{\ell}$

Labor demand:  $L^d = \bar{f} - w$

The values of the equilibrium quantity of labor,  $L$ , and wage,  $w$ , are:

- a.  $L^* = \frac{\bar{a} \bar{f} + \bar{\ell}}{1 + \bar{a}}$ ;  $w^* = (\bar{f} - \bar{\ell}) / (1 + \bar{a})$ .
- b.  $L^* = (\bar{a} \bar{f} + \bar{\ell}) / (\bar{\ell} + \bar{a})$ ;  $w^* = (\bar{f} - \bar{\ell}) / (\bar{\ell} - \bar{a})$ .
- c.  $L^* = (\bar{a} \bar{f} + \bar{\ell}) / (\bar{\ell} + \bar{a})$ ;  $w^* = (\bar{f} + \bar{\ell}) / (\bar{\ell} + \bar{a})$ .
- d.  $L^* = (\bar{a} \bar{f} + \bar{\ell}) / (\bar{\ell} - \bar{a})$ ;  $w^* = (\bar{f} - \bar{\ell}) / (\bar{\ell} - \bar{a})$ .
- e.  $L^* = \frac{\bar{a} \bar{f} + \bar{\ell}}{\bar{\ell} + \bar{a}}$ ;  $w^* = \frac{\bar{f} - \bar{\ell}}{\bar{\ell} - \bar{a}}$ .

ANS: A

DIF: Difficult

REF: 1.2

TOP: II.

MSC: Applying

16. Consider the following model of the labor market:

Labor supply:  $L^s = 1 + w$

Labor demand:  $L^d = 11 - w$

The value of the equilibrium quantity of labor,  $L$ , and wage,  $w$ , are:

- a.  $L^* = 4^{4/5}$ ;  $w^* = 1/5$ .
- b.  $L^* = 5$ ;  $w^* = 6$ .
- c.  $L^* = 6$ ;  $w^* = 5$ .
- d.  $L^* = 6$ ;  $w^* = 6$ .
- e. Not enough information is given.

ANS: C

DIF: Difficult

REF: 1.2

TOP: II.

MSC: Applying

17. Income per person began at \_\_\_\_\_ in 1870 and \_\_\_\_\_ over a factor of 15 to \_\_\_\_\_ in 2012.

- a. \$2,500; rose; \$35,000
- b. \$2,800; rose; \$58,000
- c. \$2,800; rose; \$100,000
- d. \$44,000; fell; \$3,500
- e. \$40,000; fell; \$2,500

ANS: B

DIF: Easy

REF: 1.3

TOP: III.A.

MSC: Remembering

18. Actual gross domestic product (GDP) is \_\_\_\_\_ equal to potential GDP.

- a. rarely not
- b. always
- c. rarely
- d. rarely
- e. Not enough information is given.

c. always not

ANS: D                      DIF: Easy                      REF: 1.3                      TOP: III.A. | III.B.  
MSC: Understanding

19. When we look at the \_\_\_\_\_ run, we are concerned with the \_\_\_\_\_.
- short; causes of economic fluctuations
  - long; causes of economic fluctuations
  - short; determinants of economic growth
  - long; causes of inflation
  - long; money supply

ANS: A                      DIF: Easy                      REF: 1.3                      TOP: III.A. | III.B.  
MSC: Understanding

20. When we look at the \_\_\_\_\_ run, we are concerned with \_\_\_\_\_.
- long; the money supply
  - long; the causes of economic fluctuations
  - long; the causes of economic growth
  - long; the causes of inflation
  - long; unemployment

ANS: C                      DIF: Easy                      REF: 1.3                      TOP: III.A.  
MSC: Understanding

21. The short run is concerned with \_\_\_\_\_, while the long run is concerned with \_\_\_\_\_.
- inflation; unemployment
  - the causes of economic fluctuations; inflation
  - the causes of economic fluctuations; the determinants of economic growth
  - the determinants of economic growth; the causes of economic fluctuations
  - the causes of economic fluctuations; the money supply

ANS: C                      DIF: Easy                      REF: 1.3                      TOP: III.B.  
MSC: Understanding

## TRUE/FALSE

1. Macroeconomics is the study of an individual market.

ANS: F                      DIF: Easy                      REF: 1.1                      TOP: I.  
MSC: Remembering  
NOT: It is the study of the overall performance of an economy.

2. These four steps, in the following order, are used to study macroeconomic behavior:
- (1) document the facts;
  - (2) develop a model;
  - (3) compare the predictions of the model to the original facts; and
  - (4) use the model to make other predictions that eventually may be tested.

ANS: T                      DIF: Easy                      REF: 1.2                      TOP: II.  
MSC: Applying

3. These four steps, in the following order, are used to study macroeconomic behavior:
- (1) document the facts;

- (2) use the model to make other predictions that may eventually be tested;
- (3) compare the predictions of the model to the original facts; and
- (4) develop a model.

ANS: F                      DIF: Easy                      REF: 1.2                      TOP: II.

MSC: Applying

NOT: They are (1) document the facts; (2) develop a model; (3) compare the predictions of the model to the original facts; and (4) use the model to make other predictions that eventually may be tested.

4. A main concern of long-run macroeconomics is the causes of economic growth.

ANS: T                      DIF: Easy                      REF: 1.3                      TOP: III.A.

MSC: Applying

5. A main concern of long-run macroeconomics is the causes of economic fluctuations.

ANS: F                      DIF: Easy                      REF: 1.3                      TOP: III.A.

MSC: Understanding                      NOT: We are concerned with economic growth.

6. A main concern of short-run macroeconomics is the causes of economic fluctuations and how to fix them.

ANS: T                      DIF: Moderate                      REF: 1.3                      TOP: III.B.

MSC: Applying

7. A main concern of short-run macroeconomics is the causes of economic growth.

ANS: F                      DIF: Easy                      REF: 1.3                      TOP: III.B.

MSC: Understanding

NOT: We are concerned with the causes of economic fluctuations.

8. An economic model is an exact replica of the economy.

ANS: F                      DIF: Moderate                      REF: 1.2                      TOP: II.

MSC: Analyzing

NOT: It is a very simplified version of the economy that gives us insight into how the economy functions.

9. An endogenous variable is often called a parameter.

ANS: F                      DIF: Moderate                      REF: 1.2                      TOP: II.

MSC: Understanding

NOT: It is a variable that is predicted by the model; the parameter is chosen by the economist.

10. An exogenous variable is one that is taken as given (what the text refers to as parameters).

ANS: T                      DIF: Easy                      REF: 1.2                      TOP: II.

MSC: Remembering

## SHORT ANSWER

1. What are at least four of the main concerns of the study of macroeconomics?

ANS:

Here are a handful of options:

- (a) Why does the average person today have 10 times more income than the typical person 100 years ago?
- (b) What determines the rate of inflation, and how do we control it?
- (c) How can we minimize the number of people unemployed?
- (d) What role, if any, does the government and/or central bank have in promoting economic well-being?
- (e) Why do unemployment rates differ across countries?
- (f) Why are some countries richer than others, and how can we promote development in lower-income countries?
- (g) What are the causes, and fixes, for economic crises?

DIF: Moderate      REF: 1.1      TOP: I.      MSC: Understanding

2. What are the steps macroeconomists use to analyze the economy?

ANS:

- (a) Document the facts;
- (b) Develop a framework for analysis (a model);
- (c) Test the model using empirical analysis or some other comparable analysis and compare to the observed facts; and
- (d) Use the model to make other predictions that may eventually be tested

DIF: Easy      REF: 1.2      TOP: II.      MSC: Remembering

3. Describe the differences between the short run and the long run.

ANS:

In the short run, we are concerned with the causes of economic fluctuations, or the business cycle. In the long run, we are concerned with the determinants of economic growth. Thus, the long run is the trend of output, and the short run represents the fluctuations around the trend.

DIF: Moderate      REF: 1.3      TOP: III.A. | III.B.      MSC: Understanding

4. Consider the following model of the labor market:

$$\text{Labor Supply: } L^s = (\bar{a}w + \bar{\ell})$$

$$\text{Labor Demand: } L^d = \bar{f} - w.$$

- (a) Identify the model's parameters.
- (b) Identify the endogenous variables.
- (c) Solve the model.
- (d) What must the relationship between  $\bar{f}$  and  $\bar{\ell}$  be?
- (e) If the supply and demand for labor were given as

$$L^s = 2w + 2$$

and

$$L^d = 3 - 3w$$

what are the equilibrium wage and labor force?

ANS:

- (a) Using the notation in the text, the parameters are  $\bar{\alpha}$ ,  $\bar{\ell}$ , and  $\bar{f}$ .
- (b) They are the wage,  $w$ , and the labor in the market,  $L$ .
- (c) Setting supply equal to demand, we get

$$(\bar{\alpha}w + \bar{\ell}) = \bar{f} - w.$$

Solving this for  $w^*$  and  $L^*$ , we get

$$L^* = \frac{\bar{\alpha} \bar{f} + \bar{\ell}}{1 + \bar{\alpha}}; \quad w^* = (\bar{f} - \bar{\ell}) / (1 + \bar{\alpha}).$$

- (d) To ensure the wage is positive, it must be that  $\bar{f} > \bar{\ell}$ .
- (e) Using the above equation we get  $w^* = 1/5$  and  $L^* = 12/5$ .

DIF: Difficult

REF: 1.2

TOP: II.

MSC: Applying