Chapter 1
Introduction to Macroeconomics

Multiple Choice Questions

1. The two major reasons for the tremendous growth in output in the U.S. economy over the last 125 years are
   (a) population growth and low inflation.
   (b) population growth and increased productivity.
   (c) low unemployment and low inflation.
   (d) low inflation and low trade deficits.
   Answer: B
   Level of difficulty: 1
   Section: 1.1

2. The main reason that the United States has such a high standard of living is
   (a) low unemployment.
   (b) high average labor productivity.
   (c) low inflation.
   (d) high government budget deficits.
   Answer: B
   Level of difficulty: 1
   Section: 1.1

3. Average labor productivity is the
   (a) amount of workers per machine.
   (b) amount of machines per worker.
   (c) ratio of employed to unemployed workers.
   (d) amount of output per worker.
   Answer: D
   Level of difficulty: 1
   Section: 1.1

4. In which of the following periods did average labor productivity in the United States grow the fastest?
   (a) 1929 to 1935
   (b) 1949 to 1973
   (c) 1973 to 1995
   (d) 1995 to 2002
   Answer: B
   Level of difficulty: 1
   Section: 1.1
5. The most direct effect of an increase in the growth rate of average labor productivity would be an increase in
   (a) the inflation rate.
   (b) the unemployment rate.
   (c) the long–run economic growth rate.
   (d) imported goods.
   Answer: C
   Level of difficulty: 1
   Section: 1.1

6. Short-run contractions and expansions in economic activity are called
   (a) recessions.
   (b) expansions.
   (c) deficits.
   (d) the business cycle.
   Answer: D
   Level of difficulty: 1
   Section: 1.1

7. When national output rises, the economy is said to be in
   (a) an expansion.
   (b) a deflation.
   (c) an inflation.
   (d) a recession.
   Answer: A
   Level of difficulty: 1
   Section: 1.1

8. Which of the following best describes a typical business cycle?
   (a) Economic expansions are followed by economic contractions.
   (b) Inflation is followed by unemployment.
   (c) Trade surpluses are followed by trade deficits.
   (d) Stagflation is followed by inflationary economic growth.
   Answer: A
   Level of difficulty: 1
   Section: 1.1

9. During recessions, the unemployment rate __________ and output __________.
   (a) rises; falls
   (b) rises; rises
   (c) falls; rises
   (d) falls; falls
   Answer: A
   Level of difficulty: 1
   Section: 1.1
10. The number of unemployed divided by the labor force equals
   (a) the inflation rate.
   (b) the labor force participation rate.
   (c) the unemployment rate.
   (d) the misery index.
   Answer: C
   Level of difficulty: 1
   Section: 1.1

11. The highest and most prolonged period of unemployment in the United States over the last 125 years occurred during
   (a) World War II.
   (b) the 1890s Depression.
   (c) the 1990–1991 recession.
   (d) the Great Depression of the 1930s.
   Answer: D
   Level of difficulty: 1
   Section: 1.1

12. During the Great Depression, the unemployment rate for the United States peaked at approximately
   (a) 10%.
   (b) 70%.
   (c) 45%.
   (d) 25%.
   Answer: D
   Level of difficulty: 2
   Section: 1.1

13. A country is said to be experiencing inflation when
   (a) prices of most goods and services are rising over time.
   (b) prices of most goods and services are falling over time.
   (c) total output is rising over time.
   (d) total output is falling over time.
   Answer: A
   Level of difficulty: 1
   Section: 1.1

14. From 1800 to 1940, the price level in the United States
   (a) trended neither upward nor downward.
   (b) fluctuated wildly.
   (c) declined slowly.
   (d) increased slowly.
   Answer: A
   Level of difficulty: 2
   Section: 1.1
15. Before World War II, the average level of prices in the United States usually
   (a) fell during wartime and rose during peacetime.
   (b) fell during wartime and fell during peacetime.
   (c) rose during wartime and fell during peacetime.
   (d) rose during wartime and rose during peacetime.
   Answer: C
   Level of difficulty: 1
   Section: 1.1

16. The inflation rate is the
   (a) percent increase in the average level of prices over a year.
   (b) percent increase in output over a year.
   (c) percent increase in the unemployment rate over a year.
   (d) price level divided by the level of output.
   Answer: A
   Level of difficulty: 1
   Section: 1.1

17. If the price level was 100 in 1999 and 102 in 2000, the inflation rate was
   (a) 102%.
   (b) 20%.
   (c) 2%.
   (d) 0.2%.
   Answer: C
   Level of difficulty: 2
   Section: 1.1

18. A closed economy is a national economy that
   (a) doesn’t interact economically with the rest of the world.
   (b) has a stock market that is not open to traders from outside the country.
   (c) has extensive trading and financial relationships with other national economies.
   (d) has not established diplomatic relations with other national economies.
   Answer: A
   Level of difficulty: 1
   Section: 1.1

19. An economy that doesn’t interact economically with the rest of the world is called ___________ economy.
   (a) a closed
   (b) an open
   (c) a surplus
   (d) an authoritarian
   Answer: A
   Level of difficulty: 1
   Section: 1.1
20. U.S. imports are goods and services
   (a) produced abroad and sold to Americans.
   (b) produced in the United States and sold to Americans.
   (c) produced abroad and sold to foreigners.
   (d) produced in the United States and sold to foreigners.
   Answer: A
   Level of difficulty: 1
   Section: 1.1

21. Following World War I and World War II, the United States had a
   (a) small trade surplus.
   (b) small trade deficit.
   (c) large trade deficit.
   (d) large trade surplus.
   Answer: D
   Level of difficulty: 1
   Section: 1.1

22. In the 1980s and 1990s, the United States has had a
   (a) small trade surplus.
   (b) small trade deficit.
   (c) large trade deficit.
   (d) large trade surplus.
   Answer: C
   Level of difficulty: 1
   Section: 1.1

23. A country has a trade surplus when
   (a) imports exceed exports.
   (b) imports equal exports.
   (c) exports exceed imports.
   (d) import is zero.
   Answer: C
   Level of difficulty: 1
   Section: 1.1

24. A country has a trade deficit when
   (a) imports exceed exports.
   (b) imports equal exports.
   (c) exports exceed imports.
   (d) export is zero.
   Answer: A
   Level of difficulty: 1
   Section: 1.1
25. Data on exports and imports for the United States over the period from 1890 to 2001 show that
(a) the United States had large trade deficits throughout this entire period.
(b) the United States had large trade surpluses throughout this entire period.
(c) the percentage of total output exported by U.S. firms fell dramatically during World War I and
World War II.
(d) a higher percentage of U.S. goods was exported in recent years than in earlier years.
Answer: D
Level of difficulty: 2
Section: 1.1

26. A central bank is an institution that
(a) pays for government expenditures.
(b) controls a nation’s monetary policy.
(c) runs a country’s stock market.
(d) determines a nation’s fiscal policy.
Answer: B
Level of difficulty: 1
Section: 1.1

27. In the United States, monetary policy is determined by
(a) the Federal Reserve.
(b) the president.
(c) private citizens.
(d) the Treasury Department.
Answer: A
Level of difficulty: 1
Section: 1.1

28. The peak in U.S. government spending as a percent of GDP occurred during
(a) World War II.
(b) the 1960s war on poverty.
(c) the Great Depression.
(d) the 1990s war on drugs.
Answer: A
Level of difficulty: 1
Section: 1.1

29. Why were the U.S. government budget deficits of the 1980s and 1990s so unusual from a historical
point of view?
(a) It was the first time the U.S. government had ever run deficits.
(b) In the past, deficits were usually that large only in wartime.
(c) It was the first time that deficits were accompanied by very high rates of inflation.
(d) It was the first time that deficits diverted funds from other productive uses, such as investment
in modern equipment.
Answer: B
Level of difficulty: 1
Section: 1.1
30. Critics of the government’s fiscal policies argued that government deficits
   (a) prevented capital from flowing into the United States.
   (b) were linked to the excess of imports over exports that occurred in the 1980s.
   (c) caused the level of unemployment in the United States to increase during the 1980s.
   (d) had directly contributed to a decline in the level of demand in the American economy.
   Answer: B
   Level of difficulty: 2
   Section: 1.1

31. The difference between microeconomics and macroeconomics is that
   (a) microeconomics looks at supply and demand for goods, macroeconomics looks at supply and demand for services.
   (b) microeconomics looks at prices, macroeconomics looks at inflation.
   (c) microeconomics looks at individual consumers, macroeconomics looks at national totals.
   (d) microeconomics looks at national issues, macroeconomics looks at global issues.
   Answer: C
   Level of difficulty: 1
   Section: 1.1

32. Aggregation is the process of
   (a) calculating real GDP based on nominal GDP and the price index.
   (b) summing individual economic variables to obtain economywide totals.
   (c) forecasting the components of GDP.
   (d) predicting when recessions will occur.
   Answer: B
   Level of difficulty: 1
   Section: 1.1

33. A country that has many well-trained macroeconomic analysts will not necessarily have more beneficial macroeconomic policies because
   (a) economists’ understanding of the economy remains poor.
   (b) there are few ways in which economists’ complex models can be applied to the real world.
   (c) economists agree on so few government policies.
   (d) economic policy is usually made by politicians, not economists.
   Answer: D
   Level of difficulty: 1
   Section: 1.2

34. The main goal of macroeconomic research is to
   (a) predict how the macroeconomy will perform in the future.
   (b) analyze current macroeconomic data.
   (c) develop new data that can be used to understand better the operation of the economy.
   (d) make general statements about how the economy works.
   Answer: D
   Level of difficulty: 1
   Section: 1.2
35. A set of ideas about the economy that have been organized in a logical framework is called
   (a) empirical analysis.
   (b) a methodology.
   (c) economic theory.
   (d) data development.
   Answer: C
   Level of difficulty: 1
   Section: 1.2

36. If the theory behind an economic model fits the data poorly, you would probably want to
   (a) use the theory to predict what would happen if the economic setting or economic policies change.
   (b) start from scratch with a new model.
   (c) enrich the model with additional assumptions.
   (d) restate the research question.
   Answer: B
   Level of difficulty: 2
   Section: 1.2

37. Positive analysis of economic policy
   (a) examines the economic consequences of policies but does not address the question of whether those consequences are desirable.
   (b) examines the economic consequences of policies and addresses the question of whether those consequences are desirable.
   (c) generates less agreement among economists than normative analysis.
   (d) is rare in questions of economic policy.
   Answer: A
   Level of difficulty: 1
   Section: 1.3

38. Equilibrium in the economy means
   (a) unemployment is zero.
   (b) quantities demanded and supplied are equal in all markets.
   (c) prices are not changing over time.
   (d) tax revenues equal government spending, so the government has no budget deficit.
   Answer: B
   Level of difficulty: 1
   Section: 1.3

39. Adam Smith’s idea of the “invisible hand” says that given a country’s resources and its initial distribution of wealth, the use of markets will
   (a) insulate a nation from the effects of political instability.
   (b) eliminate problems of hunger and dissatisfaction.
   (c) eliminate inequalities between the rich and the poor.
   (d) make people as economically well off as possible.
   Answer: D
   Level of difficulty: 1
   Section: 1.3
40. The two most comprehensive, widely accepted macroeconomic models are
   (a) the classical model and the supply-side model.
   (b) the supply-side model and the real business cycle model.
   (c) the classical model and the Keynesian model.
   (d) the Austrian model and the Keynesian model.
   Answer: C
   Level of difficulty: 1
   Section: 1.3

41. Classical economists argue that
   (a) the government should have an active role in the economy.
   (b) government policies will be ineffective and counterproductive.
   (c) the government should actively intervene in the economy to eliminate business cycles.
   (d) wages and prices don’t adjust quickly, so the economy is slow to return to equilibrium.
   Answer: B
   Level of difficulty: 2
   Section: 1.3

42. Keynes was motivated to create a macroeconomic theory different from classical theory because
   (a) he believed in government intervention in the economy.
   (b) he believed in the idea of the invisible hand.
   (c) monetary policy was more important than the classicals acknowledged.
   (d) classical theory was inconsistent with the data in the Great Depression.
   Answer: D
   Level of difficulty: 1
   Section: 1.3

43. Keynes assumed that wages and prices were slow to adjust in order to explain
   (a) persistently high unemployment.
   (b) high inflation.
   (c) the high level of interest rates.
   (d) why inflation fell in recessions.
   Answer: A
   Level of difficulty: 2
   Section: 1.3

44. How did Keynes propose to solve the problem of high unemployment?
   (a) Increase the growth rate of the money supply.
   (b) Allow wages to decline, so that firms will want to hire more workers.
   (c) Put on wage and price controls, so wages won’t rise and firms won’t have to lay people off to cut costs.
   (d) Have the government increase its demand for goods and services.
   Answer: D
   Level of difficulty: 2
   Section: 1.3
45. The primary factor that caused most economists to lose their faith in the classical approach to macroeconomic policy was
   (a) the high levels of unemployment that occurred during the Great Depression.
   (b) the presence of both high unemployment and high inflation during the 1970s.
   (c) the theoretical proof that classical ideas were invalid.
   (d) the evidence that classical ideas were useful during economic booms, but not during economic recessions.

   Answer: A  
   Level of difficulty: 2 
   Section: 1.3

46. The primary factor that caused some economists to lose their faith in the Keynesian approach to macroeconomic policy was
   (a) the high levels of unemployment that occurred during the Great Depression.
   (b) the presence of both high unemployment and high inflation during the 1970s.
   (c) the theoretical proof that Keynes’s ideas were invalid.
   (d) the evidence that Keynes’s ideas were useful during economic recessions, but not during economic booms.

   Answer: B  
   Level of difficulty: 2 
   Section: 1.3

Essay Questions

1. What are the major factors affecting the long-term growth of the economy’s output?

   Answer: The major factors are population growth and average labor productivity.
   Level of difficulty: 1  
   Section: 1.1

2. Macroeconomic information for the economy of Anchovy is given below.

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output (pizzas)</td>
<td>8000</td>
<td>9000</td>
</tr>
<tr>
<td>Employment (workers)</td>
<td>700</td>
<td>800</td>
</tr>
<tr>
<td>Unemployed (workers)</td>
<td>70</td>
<td>100</td>
</tr>
<tr>
<td>Labor force (workers)</td>
<td>770</td>
<td>900</td>
</tr>
<tr>
<td>Price per pizza</td>
<td>$8.00</td>
<td>$9.00</td>
</tr>
</tbody>
</table>

   (a) What was the growth rate of average labor productivity in Anchovy between 2003 and 2004? 
   (b) What was the inflation rate in Anchovy between 2003 and 2004? 
   (c) What was the unemployment rate in 2003? In 2004?

   Answers: 
   (a) Average labor productivity: 2003: 8000/700 = 80/7; 2004: 9000/800 = 90/8; growth rate = 
            \[ \frac{(90/8)/(80/7)}{1} - 1 = -0.016 = -0.16\% \]
   (b) Inflation rate: (9/8) – 1 = 0.125 = 12.5% 
   (c) Unemployment rates: 2003: 70/770 = 0.091 = 9.1%; 2004: 100/900 = 0.111 = 11.1% 
   Level of difficulty: 3  
   Section: 1.1
3. Match each of the following jobs to its major area: forecasting, analysis, research, or data development. Explain your answers.
   (a) Economist at university, testing theories about the efficient allocation of resources in the foreign exchange market
   (b) Economist at Wall Street firm trying to predict the rate of inflation next year using past data
   (c) Economist at auto firm looking at demand for new automobiles
   (d) Economist at the International Trade Commission trying to determine whether foreign firms are dumping goods in the United States
   (e) Economist at the Commerce Department developing new methods for calculating price indexes
   (f) Economist consulting in Eastern Europe about how to set up free-market financial systems

   **Answers:**
   (a) Research
   (b) Forecasting
   (c) Analysis
   (d) Analysis
   (e) Data development
   (f) Analysis

   Level of difficulty: 2
   Section: 1.2

4. Why is wage and price flexibility crucial to the idea of the “invisible hand?”

   **Answer:** Wage and price flexibility is crucial because in a free-market system, changes in wages and prices are the signals that coordinate the actions of people and businesses in the economy.

   Level of difficulty: 1
   Section: 1.3

5. What is meant by aggregation? Why is aggregation important for macroeconomic analysis?

   **Answer:** Aggregation refers to the process of adding together individual economic variables to obtain economywide totals. Aggregation distinguishes microeconomics from macroeconomics. It allows us to study the economy as a whole, rather than looking at its individual parts.

   Level of difficulty: 1
   Section: 1.1
6. Compare and contrast the classical and Keynesian schools of thought for the following economic issues.
   (a) The flexibility of wages and prices
   (b) The importance of macroeconomic policies

   **Answers:**
   (a) The flexibility of wages and prices is a principal point of disagreement between classical economists and Keynesians. Classical economists believe that wages and prices are quite flexible; in response to a change in market conditions, wages and prices adjust quickly to their new market-clearing levels. Keynesians believe that wages and prices are rigid or sticky; in response to changes in the economy, wages and prices adjust slowly to their new market-clearing levels.
   (b) Classicals and Keynesians also disagree about the use of macroeconomic policies. Given wage-price flexibility, classical economists believe that the market economy normally provides for full employment. They believe that government intervention in the form of macroeconomic fiscal and monetary policies is not needed to prevent recessions. Given slow adjustments in wages and prices, Keynesians believe that recessions could plague the economy for several years. They believe that efficient use of macroeconomic policies could return the economy to equilibrium more quickly.
   
   Level of difficulty: 2
   Section: 1.3

7. Using the CPI measure of the price level, which is 100 in the base year of 2001, calculate the annual inflation rates for
   (a) 2002, when the index is 103.7.
   (b) 2003, when the index is 105.5.
   (c) 2004, when the index is 107.7.

   **Answers:**
   (a) Inflation in 2002 = \( \frac{103.7 - 100}{100} \times 100\% = 3.7\% \).
   (b) Inflation in 2003 = \( \frac{105.5 - 103.7}{100} \times 100\% = 1.7\% \).
   (c) Inflation in 2004 = \( \frac{107.7 - 105.5}{100} \times 100\% = 2.1\% \).
   
   Level of difficulty: 2
   Section: 1.1
8. In 1993, the debate heated up in the United States about the North American Free Trade Agreement (NAFTA), which proposed to reduce barriers to trade (such as taxes on or limits to imports) among Canada, the United States, and Mexico. Some people opposed strongly the agreement, arguing that an influx of foreign goods under NAFTA would disrupt the U.S. economy, harm domestic industries, and throw American workers out of work. How might a classical economist respond to these concerns? Would you expect a Keynesian economist to be more or less sympathetic to these concerns than the classical economist? Why?

Answer: A classical economist might argue that the economy would work more efficiently with NAFTA because it reduces trade barriers, making the invisible hand work even better. Workers could specialize even more than before so that total output produced by all three countries would be more. Though the industrial mix might change in each country, wages and prices across industries would adjust quickly, and people in industries that closed down in a particular country would quickly find new jobs.

A Keynesian economist might be more sympathetic to concerns about NAFTA because of the belief that adjustment to the changes will not occur quickly. As a result, people in particular industries in a country may become unemployed. Wages won’t adjust quickly to restore full employment, so some government action (like retraining programs to give displaced workers new skills) may be desirable.

Level of difficulty: 2
Section: 1.3