CHAPTER 10

AGGREGATE OUTPUT PRICES AND ECONOMIC GROWTH

1. (C) **and real GDP in the current period.**

Explanation

The GDP deflator is the percentage difference between the current period's nominal GDP and real GDP, reflecting inflation since the base period.

(Study Session 3, Module 10.1, LOS 10.c)

Related Material

SchweserNotes - Book 1

2. (A) **decrease investment and decrease consumption.**

Explanation

An increase in real interest rates can be expected to decrease business investment and decrease consumption. The impact on government spending and net exports is not clear-cut.

(Study Session 3, Module 10.2, LOS 10.f)

Related Material

SchweserNotes - Book 1

3. (A) **equal to the country's aggregate income.**

Explanation

Aggregate income and aggregate output (gross domestic product) must be equal for an economy as a whole.

(Study Session 3, Module 10.1, LOS 10.a)

Related Material

SchweserNotes - Book 1

4. (B) **(S - I) = (G - T) + (X - M).**

Explanation

The fundamental relationship of saving to investment, the fiscal balance, and the trade balance is S = I + (G - T) + (X - M), or (S - I) = (G - T) + (X - M). This relationship can be solved for the fiscal balance, (G - T) = (S - I) - (X - M), or for the trade balance, (X - M) = (S - I) - (G -T).

(Study Session 3, Module 10.1, LOS 10.e)

Related Material

SchweserNotes - Book 1

5. (C) **An increase in the rate of unemployment.**

Explanation

If business and consumer optimism wanes, consumers will spend less and defer current consumption and save more of their disposable income. With reduced product demand, businesses will reduce their capital expenditures and investments. These actions will lead businesses to reduce their number of employees, thereby increasing the rate of unemployment. Moreover, current output will decrease and the price level will fall.

(Study Session 3, Module 10.3, LOS 10.i)

Related Material

SchweserNotes - Book 1

6. (B) **Yes, if aggregate demand increases.**

Explanation

An increase in aggregate demand when the economy is operating at long-run equilibrium (at full employment) will increase both the price level and real GDP in the short run.

(Study Session 3, Module 10.3, LOS 10.k)

Related Material

SchweserNotes - Book 1

7. (C) **short-run recessionary gap.**

Explanation

An increase in the wage rate decreases short-run aggregate supply, leading to a short-run recessionary gap.

(Study Session 3, Module 10.3, LOS 10.j)

Related Material

SchweserNotes - Book 1

8. (A) **Because entitlements are adjusted for inflation, a rising price level forces government spending to increase.**

Explanation

The aggregate demand curve plots real GDP against the price level. Rising entitlement payments that result from an increasing price level affect nominal GDP, but not real GDP. Both remaining choices describe reasons why the consumption and investment components of real GDP decrease when the price level increases.

(Study Session 3, Module 10.2, LOS 10.f)

Related Material

SchweserNotes - Book 1

9. (B) inelastic because all input prices can vary.

Explanation

The long-run aggregate supply curve is perfectly inelastic because in the long run all input prices change in proportion to the price level. Therefore the price level has no effect on long-run aggregate supply, which represents the level of potential GDP.

(Study Session 3, Module 10.2, LOS 10.g)

Related Material

SchweserNotes - Book 1

10. (B) will increase.

Explanation

Increases in AD and SRAS both cause real GDP to increase. An increase in AD increases the price level, but an increase in SRAS tends to decrease the price level, so their combined effect could be an increase or a decrease in the price level.

(Study Session 3, Module 10.3, LOS 10.l)

Related Material

SchweserNotes - Book 1

11. (C) a fiscal surplus.

Explanation

The fundamental relationship among saving, investment, the fiscal balance, and the trade balance is stated as: (G - T) = (S - I) - (X - M). If S = I, this equation becomes (G - T) = - (X - M), or (T - G) = (X - M). In this case, if the trade balance is in surplus (exports are greater than imports), the fiscal balance must also be in surplus (taxes are greater than government spending).

(Study Session 3, Module 10.1, LOS 10.e)

Related Material

SchweserNotes - Book 1

12. (B) 4.0%.

Explanation

GDP deflator = $784 billion / $617 billion x 100 = 127.07. Annual rate of increase = $(127.07 / 100)^{1/6} - 1 = 0.0407 = 4.07\%$.

(Study Session 3, Module 10.1, LOS 10.c)

Related Material

SchweserNotes - Book 1

13. (C) labor supply, physical capital, and technology.

Explanation

Sources of sustainable long-run economic growth (increases in long-run aggregate supply) include increases in the labor force, human capital (the education and skill level of the labor force), the stock of physical capital, the supply of natural resources, and the level of technology. Increases in the money supply or government spending increase aggregate demand but do not increase long-run aggregate supply.

(Study Session 3, Module 10.3, LOS 10.m)

Related Material

SchweserNotes - Book 1

14. (A) total factor productivity increased.

Explanation

Any excess of real GDP growth over the rate of growth in labor and capital indicates there has been an increase in total factor productivity.

(Study Session 3, Module 10.3, LOS 10.o)

Related Material

SchweserNotes - Book 1

15. (A) inflation.

Explanation

The economy is in an inflationary phase if actual real GDP is greater than potential real GDP. When actual real GDP equals potential real GDP, the economy is said to be at full employment. The economy is in a recessionary phase if real GDP is less than potential GDP.

(Study Session 3, Module 10.3, LOS 10.j)

Related Material

SchweserNotes - Book 1

16. (C) productivity, the labor force, and the capital stock.

Explanation

The production function approach relates a country's economic output to its inputs of capital and labor and its levels of productivity.

(Study Session 3, Module 10.3, LOS 10.n)

Related Material

SchweserNotes - Book 1

17. (C) is positive.

Explanation

Growth in potential GDP = growth in labor force + growth in labor productivity. In this example, -2% + 3% = 1% growth in potential GDP.

(Study Session 3, Module 10.3, LOS 10.m)

Related Material

SchweserNotes - Book 1

18. (A) No.

Explanation

These transactions do not increase GDP for either of these years because the antique automobile was not produced during the periods. GDP includes expenditures on goods and services that were produced during a period.

For Further Reference:

(Study Session 3, Module 10.1, LOS 10.a)

CFA® Program Curriculum, Volume 2, page 121

Related Material

SchweserNotes - Book 1

19. (B) greater than nominal GDP.

Explanation

The GDP deflator is calculated by dividing the value of nominal GDP by the value of real GDP. In most cases the GDP deflator is greater than 100; a value greater than 100 means prices have increased. A GDP deflator less than 100 shows that prices have decreased and the value of real GDP is greater than the value of nominal GDP.

(Study Session 3, Module 10.1, LOS 10.c)

Related Material

SchweserNotes - Book 1

20. (B) An increase in real wealth.

Explanation

While an increase in real wealth will shift the AD curve to the right, an increase in the real rate of interest will shift the AD curve to the left as consumers and businesses reduce their borrowing and spending. An expected decrease in prices will shift the AD curve to the left as households and businesses postpone their consumption in anticipation of lower prices in the future.

(Study Session 3, Module 10.2, LOS 10.h)

Related Material

SchweserNotes - Book 1

21. (A) **may increase or decrease.**

Explanation

The effect on the price level of decreases in both AD and SRAS depends on the relative size of the decreases in AD and SRAS. An increase in AD increases the price level, but an increase in SRAS tends to decrease the price level, so their combined effect could be an increase or a decrease in the price level.

(Study Session 3, Module 10.3, LOS 10.l)

Related Material

SchweserNotes - Book 1

22. (B) **output growth not attributable to growth in labor and capital.**

Explanation

The production function as defined as Y = A x f(L, K) where Y is the aggregate output; L = quantity of labor; K = amount of capital available; and A = total factor productivity. Total factor productivity represents output growth not directly attributable to changes in the quantities of either labor or capital, and is thought to primarily reflect technological advances.

(Study Session 3, Module 10.3, LOS 10.n)

Related Material

SchweserNotes - Book 1

23. (C) **the short run only.**

Explanation

From long-run equilibrium, an increase in aggregate demand can result in short-run equilibrium output greater than potential GDP. However, this above-full-employment output cannot be sustained in the long run because upward pressure on input costs (e.g., wages) will decrease short-run aggregate supply, decreasing output back to the full-employment level in the long run.

(Study Session 3, Module 10.3, LOS 10.k)

Related Material

SchweserNotes - Book 1

24. (A) **will increase.**

Explanation

Both an increase in aggregate demand and a decrease in short-run aggregate supply increase the price level.

(Study Session 3, Module 10.3, LOS 10.l)

Related Material

SchweserNotes - Book 1

25. (C) Savings.

Explanation

The relationship between the fiscal balance, savings, investment, and the trade balance is (G - T) = (S - I) - (X - M). An increase in a fiscal budget deficit (G - T) must be funded by an increase in savings (S), a decrease in investment (I), or a decrease in net exports (X - M), which would decrease a trade surplus or increase a trade deficit.

(Study Session 3, Module 10.1, LOS 10.e)

Related Material

SchweserNotes - Book 1

26. (A) wages and benefits, corporate profits, and indirect business taxes less subsidies.

Explanation

National income is the sum of employee wages and benefits, corporate and government enterprise profits before tax, interest income, unincorporated business owners' income, rental income, and indirect business taxes less subsidies. Capital consumption allowance is an estimate of depreciation during the measurement period. Statistical discrepancy is an adjustment to GDP when measured using the income approach, which accounts for differences from the data used to calculate GDP using the expenditure approach.

(Study Session 3, Module 10.1, LOS 10.d)

Related Material

SchweserNotes - Book 1

27. (C) a surplus that is greater than the trade surplus.

Explanation

The fundamental relationship among saving, investment, the fiscal balance and the trade balance is expressed as (S - I) = (G - T) + (X - M). If domestic savings (S) are not sufficient to finance private investment (I), then (S - I) is negative and the sum (G - T) + (X - M) must also be negative. With exports greater than imports, (X - M) is positive so (G - T) must be negative and larger than (X - M). If (G - T) is negative, taxes (T) are greater than government spending (G) and the government has a fiscal surplus.

For Further Reference:

(Study Session 3, Module 10.1, LOS 10.e)

CFA® Program Curriculum, Volume 2, page 138

Related Material

SchweserNotes - Book 1

28. (A) Sum of value added method.

Explanation

The sum-of-value-added method of calculating GDP requires data on the value added to goods at each stage of production and distribution. The value-of-final-output method only requires data on the final values of goods and services. The income approach to calculating GDP measures the total income of households and companies, rather than the value of goods and services.

(Study Session 3, Module 10.1, LOS 10.b)

Related Material

SchweserNotes - Book 1

29. (C) Net imports.

Explanation

The components of GDP are consumption, investment, government spending, and net exports, which is exports minus imports.

(Study Session 3, Module 10.1, LOS 10.a)

Related Material

SchweserNotes - Book 1

30. (A) produced during the measurement period.

Explanation

Gross domestic product (GDP) is the sum of the market values of all goods and services produced during a measurement period. Goods purchased during the measurement period that were produced earlier are not included in GDP. Goods produced during the measurement period but not purchased, such as goods produced for inventory, are included in GDP.

(Study Session 3, Module 10.1, LOS 10.a)

Related Material

SchweserNotes - Book 1

31. (A) exports > imports private savings < private investment

Explanation

A government budget deficit, a trade surplus, and an excess of private investment over private savings cannot all occur at the same time. If the government runs a budget deficit, the deficit must be financed by a trade deficit (exports < imports), surplus private savings (private savings > private investment), or both.

(Study Session 3, Module 10.1, LOS 10.e)

Related Material

SchweserNotes - Book 1

32. (A) **Inflation increases from 4% to 7%.**

Explanation

Changes in the price level represent movement along the short-run aggregate supply curve. The other items listed are events that are likely to shift the short-run aggregate supply curve to the left (decrease SRAS).

(Study Session 3, Module 10.2, LOS 10.h)

Related Material

SchweserNotes - Book 1

33. (C) **technology.**

Explanation

Total factor productivity represents increased productivity that cannot be directly accounted for by increases in capital and labor, and is generally considered to be driven by changes in technology.

(Study Session 3, Module 10.3, LOS 10.o)

Related Material

SchweserNotes - Book 1

34. (C) **taxes.**

Explanation

Disposable income equals personal income minus taxes.

(Study Session 3, Module 10.1, LOS 10.d)

Related Material

SchweserNotes - Book 1

35. (B) **When price levels rise, real wealth decreases, and individuals will spend less.**

Explanation

When price levels rise, real wealth decreases, and we would expect individuals to spend less. If price levels fall, real wealth increases, and we would expect individuals to spend more.

(Study Session 3, Module 10.2, LOS 10.f)

Related Material

SchweserNotes - Book 1

36. (B) **personal income.**

Explanation

Personal income is calculated by adding transfer payments to national income and subtracting indirect business taxes, corporate income taxes, and undistributed corporate profits. Disposable income is personal income minus personal taxes.

GDP is national income plus a capital consumption allowance and an adjustment for statistical discrepancy between the income and expenditure approaches.

For Further Reference:

(Study Session 3, Module 10.1, LOS 10.d)

CFA® Program Curriculum, Volume 2, page 129

Related Material

SchweserNotes - Book 1

37. (A) High unemployment puts downward pressure on money wages.

Explanation

Falling money wages would cause businesses to increase (profit-maximizing) output levels at each price level for final goods and services. Changes in the price level of goods and services are represented by a movement along a short-run aggregate supply curve, not a shift in the curve. A rise in resource prices will decrease aggregate supply. An increase in government spending will shift the aggregate demand curve but not the aggregate supply curve.

For Further Reference:

(Study Session 3, Module 10.2, LOS 10.h)

CFA® Program Curriculum, Volume 2, page 147

Related Material

SchweserNotes - Book 1

38. (B) the discovery of untapped oil fields.

Explanation

Sustainable growth in real GDP is defined as the growth rate in real GDP that is sustainable over the long term. The sustainable growth rate is positively affected by increases in the supply of natural resources, the supply of physical capital, or the supply or productivity of labor. An increase in government spending does not increase an economy's sustainable growth rate.

(Study Session 3, Module 10.2, LOS 10.h)

Related Material

SchweserNotes - Book 1

39. (C) perfectly inelastic because input prices change proportionately with the price level in the long run.

Explanation

The long-run aggregate supply curve is perfectly inelastic because in the long run, wages and other input prices adjust to changes in the overall price level. Long-run aggregate supply equals potential GDP.

(Study Session 3, Module 10.2, LOS 10.g)

Related Material

SchweserNotes - Book 1

40. (C) **Both will increase in the short run.**

Explanation

In the short run, an increase in the money supply will increase aggregate demand. The new short-run equilibrium will be at a higher price level and a greater level of real output (GDP).

For Further Reference:

(Study Session 3, Module 10.3, LOS 10.i)

CFA® Program Curriculum, Volume 2, page 147

Related Material

SchweserNotes - Book 1

41. (A) **aggregate demand has decreased.**

Explanation

A decrease in aggregate demand can reduce output below its full-employment level. A decline in long-run aggregate supply would mean the full-employment output level itself has decreased. Wage rates are assumed to be fixed in the short run, but the long-run effect of decreases in wage rates would be to increase (shift) short-run aggregate supply, leading to an increase in output.

(Study Session 3, Module 10.3, LOS 10.k)

Related Material

SchweserNotes - Book 1

42. (A) **Decrease Decrease Decrease**

Explanation

At higher price levels, consumption, investment, and net exports all decrease. A rising price level decreases consumers' real wealth, so they consume less. The higher price level will increase interest rates, which causes business investment to decrease. Rising domestic prices will also reduce foreign purchases of the country's goods, decreasing net exports.

(Study Session 3, Module 10.3, LOS 10.i)

Related Material

SchweserNotes - Book 1

43. (A) **$50**

Explanation

Producing the shirt adds $50 to GDP under either the sum-of-value-added approach or the value-of-final-output approach.

Stage of production	Value	Value added
Cotton	$30	$30
Cloth	$40	$10
Shirt	$50	$10
Sum of value added		$50

(Study Session 3, Module 10.1, LOS 10.b)

Related Material

SchweserNotes - Book 1

44. (A) **High unemployment and high inflation.**

Explanation

Stagflation refers to an economic environment where high unemployment and high inflation exist at the same time.

(Study Session 3, Module 10.3, LOS 10.j)

Related Material

SchweserNotes - Book 1

45. (B) **Indirect business taxed.**

Explanation

Indirect business taxes are not subtracted because they are included in national income.

(Study Session 3, Module 10.1, LOS 10.d)

Related Material

SchweserNotes - Book 1

46. (A) **consumption spending, gross private domestic investment, government spending, and net exports.**

Explanation

Under the expenditure approach, GDP is the sum of consumption, investment, government spending, and net exports. National income is the sum of wages and benefits, corporate profits, interest income, unincorporated business owners' income, rent, and indirect business taxes less subsidies. Personal income is the sum of national income and transfer payments to households, less corporate and indirect business taxes and undistributed corporate profits.

(Study Session 3, Module 10.1, LOS 10.d)

Related Material

SchweserNotes - Book 1

47. (B) **High capacity utilization rates.**

Explanation

As capacity utilization rates increase to high levels (typically 80% to 85%), business investment in plant and equipment increases, shifting the AD curve to the right. A change in the price level represents a movement along the demand curve, not a shift in it. Appreciation of the country's currency increases the cost of exports and reduces the cost of imports, which shifts the aggregate demand curve to the left (net exports decrease).

(Study Session 3, Module 10.2, LOS 10.h)

Related Material

SchweserNotes - Book 1

48. (C) equal to it.

Explanation

GDP calculated under the two methods is the same.

(Study Session 3, Module 10.1, LOS 10.b)

Related Material

SchweserNotes - Book 1

49. (B) is more elastic than the long-run aggregate supply curve.

Explanation

The short-run aggregate supply curve slopes upward (i.e., is not perfectly inelastic) because in the short run some input prices do not adjust fully to changes in the price level. Because firms can increase profit in the short run by increasing output in response to higher prices, there is a positive short-run relationship between the price level and quantity supplied.

(Study Session 3, Module 10.2, LOS 10.g)

Related Material

SchweserNotes - Book 1

50. (A) Productivity.

Explanation

Economic output can be stated as a production function of the form $Y = A \times f(L, K)$, where Y is economic output, L is the size of the labor force, K is the amount of capital available, and A is total factor productivity.

(Study Session 3, Module 10.3, LOS 10.n)

Related Material

SchweserNotes - Book 1

51. (C) $472 billion.

Explanation

Real GDP = $562 billion / 1.19 = $472.27 billion.

(Study Session 3, Module 10.1, LOS 10.c)

Related Material

SchweserNotes - Book 1

52. (C) increase because foreign consumers will tend to buy more export goods from the domestic country.

Explanation

When incomes in foreign countries increase, it is unlikely to have a direct effect on interest rates in the domestic economy. However, an increase in foreign incomes is likely to result in greater foreign purchases of goods exported from the domestic country, which increases the domestic country's net exports and aggregate demand.

(Study Session 3, Module 10.2, LOS 10.h)

Related Material

SchweserNotes - Book 1

53. (B) the labor force and productivity.

Explanation

The sustainable rate of economic growth can be estimated as the sum of the growth rate of the labor force and the growth rate of labor productivity.

(Study Session 3, Module 10.3, LOS 10.m)

Related Material

SchweserNotes - Book 1

54. (C) Household expenditures.

Explanation

Total investment is one of the major components of GDP (the others are consumption, government spending, and net exports). Investment is defined as expenditures allocated to fixed assets and inventory. The sources of funds for investment are national savings, foreign borrowing, and government savings.

(Study Session 3, Module 10.1, LOS 10.e)

Related Material

SchweserNotes - Book 1

55. (B) The average rate of labor productivity increases.

Explanation

Factors that shift the long-run aggregate supply curve (LAS) to the right include improvements in technology and productivity, increases in the supply of resources, and institutional changes that increase the efficiency of resource use. An increase in the productivity of the average worker is likely to shift the LAS curve to the right. Wage rate changes shift the short-run aggregate supply curve (SAS) but not the LAS curve. A decline in consumer demand would represent a move down the LAS curve but not a shift in LAS.

(Study Session 3, Module 10.2, LOS 10.h)

Related Material

SchweserNotes - Book 1

56. (C) the price level.

Explanation

A decrease (shift to the left) in short-run aggregate supply results in lower output and a higher price level. A decrease in short-run aggregate supply will likely cause nominal and real interest rates to decrease.

(Study Session 3, Module 10.3, LOS 10.i)

Related Material

SchweserNotes - Book 1