Chapter 2   The Measurement and Structure of the Canadian Economy

2.1   Multiple-Choice Questions

1) The national income accounts
A) are an accounting framework used in measuring households income.
B) are an accounting framework used in measuring firms income.
C) are an accounting framework used in measuring government income.
D) are an accounting framework used in measuring current economic activity.
Answer: D
Diff: 1   Type: MC   Page Ref: 17

2) The three approaches to measuring economic activity are the
A) cost, income, and expenditure approaches.
B) product, income, and expenditure approaches.
C) consumer, business, and government approaches.
D) private, public, and international approaches.
Answer: B
Diff: 1   Type: MC   Page Ref: 18

3) Which of the following statements is *true*?
A) GDP calculated by income approach is greater than GDP calculated by expenditure approach.
B) GDP calculated by product approach is greater than GDP calculated by expenditure approach.
C) GDP calculated by expenditure approach is greater than GDP calculated by product approach.
D) All three approaches for calculating GDP will result in the same value for GDP.
Answer: D
Diff: 1   Type: MC   Page Ref: 19

4) The *value added* of a producer is the
A) total amount for which all its products sell minus its change in inventories.
B) value of its total sales once externalities are accounted for.
C) value of its output minus the value of the inputs it purchases from other producers.
D) quality-adjusted amount of its total sales less any commissions paid.
Answer: C
Diff: 1   Type: MC   Page Ref: 18

5) The A company collects bushels of wild berries, which it sells for $2 million to the B company to be made into jam. The B company's wild berry jam is sold for a total of $6 million. What is the total contribution to the country's GDP from companies A and B?
A) $2 million
B) $4 million
C) $6 million
D) $8 million
Answer: C
Diff: 1   Type: MC   Page Ref: 18

6) The A company collects bushels of wild berries, which it sells for $2 million to the B company to be made into jam. The B company's wild berry jam is sold for a total of $6 million. What is the value added of company B?
A) $2 million
B) $4 million
C) $6 million
D) $8 million
Answer: B
Diff: 1   Type: MC   Page Ref: 18

7) The Compagnie Naturelie sells mounted butterflies, using butterfly bait it buys from another firm for $20 thousand. It pays its workers $35 thousand, pays $1 thousand in taxes, and has profits of $3 thousand. What is its value added?
A) $3 thousand
B) $19 thousand
C) $39 thousand
D) $59 thousand
Answer: C
Diff: 2   Type: MC   Page Ref: 19

8) The fundamental identity of national income accounting tells us that
A) total production = total income = total expenditure.
B) total production = total income - total expenditure.
C) total production = total income + total expenditure.
D) total production < total income + total expenditure.
Answer: A
Diff: 2   Type: MC   Page Ref: 20

9) One problem with using market values to measure GDP is that
A) you cannot compare completely heterogeneous goods by using their dollar values.
B) some useful goods and services are not sold in markets.
C) prices for some goods change every year.
D) market values of export goods are usually priced in foreign currencies.
Answer: B
Diff: 1   Type: MC   Page Ref: 21

10) Which of the following statements is *true*?
A) Total expenditures and total income are the same measures of economic activity.
B) The product, income, and expenditure approaches must generate the same answer to the measure of economic activity.
C) The fundamental identity of national income accounting states that the GDP measured by the expenditure, income, and product approaches must be identical.
D) All of the above.
Answer: D
Diff: 1   Type: MC   Page Ref: 20

11) The measurement of GDP includes
A) nonmarket goods such as homemaking and child-rearing.
B) the benefits of clean air and water.
C) estimated values of activity in the underground economy.
D) purchases and sales of goods produced in previous periods.
Answer: C
Diff: 2   Type: MC   Page Ref: 21

12) Underground activities in the economy are
A) excluded from measurements of the GDP because they are not beneficial to the nation.
B) excluded from the measurements of GDP because there is no way of measuring them.
C) included in GDP if legal and excluded from GDP if illegal.
D) estimated and included in measurements of GDP.
Answer: D
Diff: 1   Type: MC   Page Ref: 21

13) Because government services are not sold in markets
A) they are excluded from measurements of GDP.
B) the government tries to estimate their market value and uses this to measure the government's contribution to GDP.
C) they are valued at their cost of production.
D) taxes are used to value their contribution.
Answer: C
Diff: 1   Type: MC   Page Ref: 21

14) Countries A and B have the same GDP. In country A, people eat often in restaurants, but in country B people eat more often at home. Therefore
A) economic activities are underestimated in country A.
B) economic activities are overestimated in country B.
C) GDP represents accurate measure of economic activities in both countries.
D) GDP is underestimated in country B.
Answer: D
Diff: 2   Type: MC   Page Ref: 21

15) Intermediate goods are
A) capital goods, which are used up in the production of other goods but were produced in earlier periods.
B) final goods that remain in inventories.
C) goods that are used up in the production of other goods in the same period that they were produced.
D) either capital goods or inventories.
Answer: C
Diff: 1   Type: MC   Page Ref: 21

16) Which of the following statements is *true*?
A) Capital goods are a type of intermediate good.
B) Capital goods are final goods because they are not used up during a given year.
C) Capital goods are produced in the same year as the related final goods, whereas intermediate goods are produced in different years.
D) Capital goods are produced in one year and final goods are produced over a period of more than one year.
Answer: B
Diff: 2   Type: MC   Page Ref: 23

17) Capital goods are
A) not counted in the GDP as final goods.
B) not used to produce other goods.
C) used up in the same period that they are produced.
D) goods used to produce other goods.
Answer: D
Diff: 1   Type: MC   Page Ref: 23

18) Beautiful Boating purchases five new boats at $200 thousand each to rent to vacationing fishermen. The firm sells its old boats to the public for $500 thousand. The net increase in GDP of these transactions was
A) $500,000.
B) $1,000,000.
C) $1,250,000.
D) $1,500,000.
Answer: B
Diff: 1   Type: MC   Page Ref: 21

19) Inventories are
A) included in the measurement of capital goods.
B) included in the measurements of intermediate goods.
C) fully included in annual measurements of GDP.
D) included in measurements of GDP only if they have changed from the preceding year.
Answer: D
Diff: 1   Type: MC   Page Ref: 23

20) GDP differs from GNP because
A) GDP = GNP - net factor payments from abroad.
B) GNP = GDP - net factor payments from abroad.
C) GDP = GNP - capital consumption allowances.
D) GNP = GDP - capital consumption allowances.
Answer: A
Diff: 1   Type: MC   Page Ref: 24

21) Which of the following statements is *true*?
A) GDP and GNP are always the same because the net factor payments from abroad is always zero.
B) GDP is always greater than GNP because the net factor payments from abroad is always negative.
C) GNP is always greater than GDP because the net factor payments from abroad is always positive.
D) GDP may be greater, equal, or smaller than GNP because the net factor payments from abroad may be negative, zero, or positive.
Answer: D
Diff: 1   Type: MC   Page Ref: 24

22) If a Canadian construction company built a road in Kuwait, this activity would be
A) excluded from Canadian GNP.
B) fully included in Canadian GDP.
C) included in Canadian GNP only for that portion that was attributable to Canadian capital and labour.
D) included in Canadian GDP but not Canadian GNP.
Answer: C
Diff: 3   Type: MC   Page Ref: 24

23) Nations such as Egypt and Turkey have wide differences between GNP and GDP because both countries
A) have a high level of imports and exports relative to GNP.
B) have a large portion of their GNP produced by multinational corporations.
C) have a large number of citizens working abroad.
D) purchase large amounts of military wares from other countries.
Answer: C
Diff: 2   Type: MC   Page Ref: 24

24) Suppose Toyota built a new automobile plant in Mexico using Japanese management practices, Canadian capital, and Mexican labour. Which of the following statements would be *true*?
A) The portion of output contributed by Canadian capital would be included in Canadian GDP.
B) The portion of output contributed by Japanese management would be included in both Japanese GNP and GDP.
C) The portion of output contributed by Japanese management would be included in neither Japanese GNP nor GDP.
D) The portion of output contributed by Mexican labour would be included in both Mexican GNP and GDP.
Answer: D
Diff: 2   Type: MC   Page Ref: 24

25) The income-expenditure identity says that
A) Y = C + S + G.
B) Y = C + I = G.
C) Y = C + I + G + NX.
D) Y = C + I + G + NX = CA.
Answer: C
Diff: 1   Type: MC   Page Ref: 24

26) If GDP in an economy is greater than its GNP, it means that
A) net factor payment from abroad is positive.
B) net factor payment from abroad is negative.
C) net factor payment from abroad is zero.
D) there is a measurement error.
Answer: B
Diff: 2   Type: MC   Page Ref: 24

27) In using the expenditure approach to GNP, consumption includes
A) all final and intermediate goods consumed by domestic households and firms.
B) all final and intermediate goods consumed by domestic households produced at home, but not those produced abroad.
C) all final goods consumed by domestic households produced at home, but not those produced abroad.
D) all final goods consumed by domestic households produced at home and abroad.
Answer: D
Diff: 2   Type: MC   Page Ref: 25

28) In using the expenditure approach to GDP, consumption
A) includes consumer durables, semi-durable goods, nondurable goods, and services.
B) includes houses, consumer durables, nondurable goods, and services.
C) includes residential investment, nondurable goods, and services.
D) excludes all purchases by business firms.
Answer: A
Diff: 1   Type: MC   Page Ref: 25

29) In the expenditure approach to GDP, which of the following would be excluded from measurements of GDP?
A) government payments for goods produced by foreign firms
B) government payments for goods produced by firms owned by state or local governments
C) government payments for welfare
D) All government payments are included in GDP.
Answer: C
Diff: 2   Type: MC   Page Ref: 26

30) Net national income is equal to
A) GDP minus depreciation.
B) GDP minus depreciation and indirect business taxes.
C) net domestic product minus depreciation and indirect business taxes.
D) net domestic product minus indirect business taxes and employer contributions to Unemployment Insurance.
Answer: B
Diff: 1   Type: MC   Page Ref: 27

31) Monica grows coconuts and catches fish. Last year she harvested 1500 coconuts and 600 fish. She values one fish as worth three coconuts. She gave Rachel 300 coconuts and 100 fish for helping her to harvest coconuts and catch fish, all of which were consumed by Rachel. Monica set aside 200 fish to help with next year's harvest. In terms of fish, Monica's income would equal
A) 700 fish.
B) 900 fish.
C) 1100 fish.
D) 2700 fish.
Answer: B
Diff: 2   Type: MC   Page Ref: 27

32) Private disposable income equals
A) GNP - taxes + transfers + interest.
B) NNP - taxes + transfers + interest.
C) national income - taxes + transfers + interest.
D) national income - taxes - transfers
Answer: A
Diff: 2   Type: MC   Page Ref: 29

33) Private saving is defined as being equal to
A) private disposable income minus consumption.
B) net national product minus consumption.
C) private disposable income minus consumption plus interest.
D) private disposable income minus consumption plus interest plus transfer payments.
Answer: A
Diff: 1   Type: MC   Page Ref: 30

34) Assume that the municipal government of Lethbridge, Alberta, has taxes of $500, government purchases of $350, transfer payments of $150, and interest expenses of $50. The government budget would
A) show a surplus of $100.
B) show a surplus of $50.
C) be in balance with neither a surplus nor a deficit.
D) show a deficit of $50.
Answer: D
Diff: 1   Type: MC   Page Ref: 31

35) The government budget surplus equals
A) government purchases plus transfers.
B) government receipts minus outlays.
C) government outlays minus receipts.
D) government purchases minus transfers.
Answer: B
Diff: 1   Type: MC   Page Ref: 31

36) Assume that the municipal government of Winnipeg, Manitoba, has taxes of $1000, transfer payments of $400, and interest payments on the government debt of $100. If government purchases of goods and services are $300
A) government saving will be $100.
B) government saving will be $500.
C) government saving will be $200.
D) the government will not have any saving.
Answer: C
Diff: 2   Type: MC   Page Ref: 30

37) National saving equals private saving plus government saving, which in turns equals
A) C + S + T.
B) GDP + C + G.
C) GDP + NFP.
D) GDP + NFP - C - G.
Answer: D
Diff: 2   Type: MC   Page Ref: 31

38) The uses-of-saving identity says that an economy's private saving is used for
A) investment, interest expenses, and the government budget deficit.
B) investment, the government budget deficit, and the current account.
C) investment, interest expenses, the government budget deficit, and the current account.
D) investment, interest expenses, the government budget deficit, transfer payments, and the current account.
Answer: B
Diff: 1   Type: MC   Page Ref: 32

39) The uses-of-saving identity shows that if the government budget deficit rises, then one of the following must happen
A) private saving must rise, investment must fall, and/or the current account must fall.
B) private saving must rise, investment must fall, and/or the current account must rise.
C) private saving must rise, investment must rise, and/or the current account must fall.
D) private saving must rise, investment must rise, and/or the current account must rise.
Answer: A
Diff: 2   Type: MC   Page Ref: 32

40) In 2001 private saving in the country of Polity was $112 billion, investment was $114.5 billion, and the current account balance was -$26.5 billion. From the uses-of-saving identity, how much was the government of Polity saving?
A) -$24 billion
B) -$39 billion
C) $24 billion
D) $39 billion
Answer: A
Diff: 2   Type: MC   Page Ref: 32

41) In 2001 national saving in the country of Polity was $85 billion, investment was $112 billion, and private saving was $114 billion. How much was the current account balance?
A) $35 billion
B) $27 billion
C) -$27 billion
D) -$35 billion
Answer: C
Diff: 2   Type: MC   Page Ref: 32

42) Saving is a _____ variable, and wealth is a _____ variable.
A) stock; flow
B) stock; stock
C) flow; flow
D) flow; stock
Answer: D
Diff: 1   Type: MC   Page Ref: 33

43) Measuring GDP in nominal terms
A) is the most effective method because it accurately measures how an economy's physical production has changed over time.
B) is unreliable because the quality of goods changes over time.
C) is the market value of an economy's final output using the market prices of a given base year.
D) does not tell us how an economy's physical production has changed over time.
Answer: D
Diff: 2   Type: MC   Page Ref: 34

44) Investment in the United States is greater than the national saving. This implies that
A) the current account is negative.
B) the current account is positive.
C) the current account is zero.
D) firms are very productive.
Answer: A
Diff: 3   Type: MC   Page Ref: 34

45) If a country runs a current account _____, it means that its national saving is _____ than investment.
A) deficit, greater
B) deficit, less
C) surplus, greater
D) balance, less
Answer: B
Diff: 3   Type: MC   Page Ref: 34

46) Canada's current account has recently been negative. This means that
A) investment is greater than saving in Canada
B) saving is greater than investment in Canada.
C) Canadian trade partners also have a current account deficit.
D) the interest rate is higher in Canada compared to the United States.
Answer: A
Diff: 3   Type: MC   Page Ref: 34

47) The country of Old Jersey produces milk and butter, and it has published the following macroeconomic data, where quantities are in gallons and prices are dollars per gallon:

	2000		2001	
Good	Quantity	Price	Quantity	Price
Milk	500	$2	900	$3
Butter	2000	$1	3000	$2

Between 2000 and 2001 nominal GDP grew by
A) 60.0%.
B) 65.5%.
C) 83.3%.
D) 190.0%.
Answer: D
Diff: 2   Type: MC   Page Ref: 35

48) A variable-weight price index
A) equals the value of current output at current prices divided by the value of current output at base-year prices.
B) equals the value of a fixed basket at current prices divided by the value of a fixed basket at base-year prices.
C) is used in the consumer price index.
D) is misleading because it cannot distinguish between nominal and real measures.
Answer: A
Diff: 1   Type: MC   Page Ref: 37

49) The country of Old Jersey produces milk and butter, and it has published the following macroeconomic data, where quantities are in gallons and prices are dollars per gallon:

Good	2000 Quantity	Price	2001 Quantity	Price
Milk	500	$2	900	$3
Butter	2000	$1	3000	$2

Between 2000 and 2001, the percent change in the price level as measured by a variable-weight price index was
A) 60.00%.
B) 81.25%.
C) 83.33%.
D) 123.08%.
Answer: B
Diff: 3   Type: MC   Page Ref: 37

50) Use the following information to answer this question about the country of Polity:

Good	2000 Quantity	Price	2001 Quantity	Price
Guns	4000	$4	4500	$6
Butter	5000	$3	5200	$2

Using a fixed-weight price index with 1998 as the base year, what is the percent change in real output from 2000 to 2001?
A) 8%
B) 10%
C) 12%
D) 15%
Answer: B
Diff: 3   Type: MC   Page Ref: 37

51) The country of Old Jersey produces milk and butter, and it has published the following macroeconomic data, where quantities are in gallons and prices are dollars per gallon:

Good	2000 Quantity	Price	2001 Quantity	Price
Milk	500	$2	900	$3
Butter	2000	$1	3000	$2

Between 2000 and 2001 real GDP grew by how much, using a variable-weight price index?
A) 37.5%
B) 60.05%
C) 83.3%
D) 190.0%
Answer: B
Diff: 3   Type: MC   Page Ref: 37

52) If nominal GDP for 2000 is $6400 billion and real GDP for 2001 is $6720 billion (in 2000 dollars), then the growth rate of real GDP is
A) 0%.
B) 0.5%.
C) 5%.
D) 50%.
Answer: C
Diff: 2   Type: MC   Page Ref: 37

53) If real GDP falls by 1 percent, but the nominal GDP rises by 5 percent, then we must conclude that
A) the price level rises by 5 percent.
B) the price level falls by 1 percent.
C) the price level rises by 6 percent.
D) the price level falls by 4 percent.
Answer: C
Diff: 2   Type: MC   Page Ref: 37

54) If the price index was 100 in 1991 and 120 in 2001, and nominal GDP was $360 billion in 1991 and $480 billion in 2001, then the value of 2001 GDP in terms of 1991 dollars would be
A) $300 billion.
B) $384 billion.
C) $400 billion.
D) $424 billion.
Answer: C
Diff: 2   Type: MC   Page Ref: 37

55) Say that nominal GDP in 1990 was $1,015.5 billion, and in 2000 it was $2,732.0 billion. The GDP deflator is 42.0 for 1990 and 85.7 for 2000, where 1992 is the base year. Calculate the percent change in real GDP in the decade from 1990 and 2000. Round off to the nearest percentage point.
A) 32%
B) 104%
C) 132%
D) 169%
Answer: A
Diff: 2   Type: MC   Page Ref: 37

56) Nominal personal consumption expenditures in Canada were $1,72.4 billion in 1980 and rose to $399.3 billion in 1990. The implicit price deflator for personal consumption expenditures is 67 for 1980 and 118.6 for 1990, where 1986 is the base year. Calculate the percent change in real personal consumption expenditures (rounded to the nearest percentage point) in the decade.
A) 31%
B) 61%
C) 114%
D) 133%
Answer: A
Diff: 2   Type: MC   Page Ref: 37

57) A fixed-weight price index
A) equals the value of current output at current prices divided by the value of current output at base-year prices.
B) equals the value of a fixed basket at current prices divided by the value of a fixed basket at base-year prices.
C) is used to calculate the GDP deflator.
D) is misleading because it cannot distinguish between nominal and real measures.
Answer: B
Diff: 1   Type: MC   Page Ref: 37

58) Which of the following statements is *true*?
A) The advantage of variable-weight indexes is that they reflect the prices of the basket of goods that people purchased in the base year.
B) The disadvantage of variable-weight indexes is that they reflect the prices of the basket of goods that people actually purchased in the current year.
C) The advantage of variable-weight indexes is that they provide better measures of inflation than do fixed-weight indexes.
D) The disadvantage of variable-weight indexes is that the current basket may contain many goods that did not exist or were of different quality in the base year.
Answer: D
Diff: 2   Type: MC   Page Ref: 37

59) Say nominal GDP was $603.9 billion in 2001 and $572.3 billion in 2000, while the GDP deflator was 121.1 in 2001 and 117.7 in 2000. What was the growth rate of real GDP between 2000 and 2001?
A) 5.5%
B) 2.9%
C) 2.6%
D) 1.0%
Answer: C
Diff: 2   Type: MC   Page Ref: 37

60) The country of Old Jersey produces milk and butter, and it has published the following macroeconomic data, where quantities are in gallons and prices are dollars per gallon:

	2001		2002	
Good	Quantity	Price	Quantity	Price
Milk	500	$2	900	$3
Butter	2000	$1	3000	$2

Between 2001 and 2002, the percent change in the price level as measured by a fixed-weight index that uses production in 2001 as the fixed "basket" of goods was
A) 60.00%.
B) 81.25%.
C) 83.33%.
D) 123.08%.
Answer: C
Diff: 3   Type: MC   Page Ref: 37

61) On January 1, 2001, the GDP deflator for Old York was 300, and on January 1, 2003, the GDP deflator had risen to 330.75. Based on this information, the annual average inflation rate for the two years was
A) 5%.
B) 5.125%.
C) 10%.
D) 10.25%.
Answer: A
Diff: 1   Type: MC   Page Ref: 38

62) If the price index last year was 1.0 and today it is 1.4, what is the inflation rate over this period?
A) -4%
B) 1.4%
C) 4%
D) 40%
Answer: D
Diff: 1   Type: MC   Page Ref: 38

63) The consumer price index is 132 in 2004 and 112 in 2003 when the base year is 1997. The 2004 annual inflation rate, using 2003 as a base year, is
A) 17.8 percent.
B) 20 percent.
C) 12 percent.
D) unknown, as there is not sufficient information.
Answer: A
Diff: 2   Type: MC   Page Ref: 38

64) GDP deflator is
A) a price index that measures the overall level of prices of goods and services included in GDP.
B) a price index that measures the overall level of prices of goods and services included in household baskets.
C) obtained by dividing real GDP over nominal GDP.
D) obtained by measuring the price of goods and services in a base year.
Answer: A
Diff: 1   Type: MC   Page Ref: 37

65) You are given information on the consumer price index (CPI), where the values given are those for December 31 of each year.

Year	CPI
1997	126.1
1998	133.8
1999	137.9
2000	141.9
2001	145.8

In which year was the inflation rate the highest?
A) 1998
B) 1999
C) 2000
D) 2001
Answer: A
Diff: 2   Type: MC   Page Ref: 38

66) The consumer price index (CPI) is 311.1 for 2002 when using 1975 as the base year (1975 = 100). Now suppose we switch and use 2002 as the base year (2002 = 100). What is the CPI for 1975 with the new base year?
A) 20.2
B) 32.1
C) 48.4
D) 56.2
Answer: B
Diff: 3   Type: MC   Page Ref: 38

67) The real interest rate is equal to
A) nominal interest rate + inflation rate.
B) nominal interest rate - inflation rate.
C) nominal interest rate / inflation rate.
D) nominal interest rate × inflation rate.
Answer: B
Diff: 1   Type: MC   Page Ref: 40

68) Which of the following statement is *false*?
A) Nominal interest rate can be either positive, zero, or negative.
B) The expected real interest rate can be either positive, zero, or negative.
C) The expected real interest rate is the correct interest rate to use for studying people's decisions about how much to borrow or lend.
D) Nominal interest rate must exceed the expected real interest rate as long as there is a positive expected inflation rate.
Answer: A
Diff: 1   Type: MC   Page Ref: 40

69) By Marks buys a one-year German government bond (called a bund) for $400. He receives principal and interest totalling $436 one year later. During the year the CPI rose from 150 to 162. The nominal interest rate on the bond was _____, and the real interest rate was _____.
A) 9%; 1%
B) 9%; -1%
C) 36%; 24%
D) 36%; 12%
Answer: A
Diff: 2   Type: MC   Page Ref: 40

70) The expected real interest rate 7 is equal to
A) nominal interest rate minus inflation rate.
B) nominal interest rate minus expected inflation rate.
C) expected nominal interest rate minus inflation rate.
D) nominal interest rate plus expected inflation rate.
Answer: B
Diff: 1   Type: MC   Page Ref: 41

71) By Marks buys a one-year German government bond (called a bund) for $400. He receives principal and interest totaling $436 one year later. During the year the CPI rose from 150 to 162, but he had thought the CPI would be at 159 by the end of the year. By Marks had expected the real interest rate to be _____, but it actually turned out to be _____.
A) 8%; 1%
B) 6%; 3%
C) 3%; 1%
D) 1%; 3%
Answer: C
Diff: 3   Type: MC   Page Ref: 41

72) If national savings in an economy is equal to $50 billion, exports are $10 billion, imports are $5 billion, and net factor payments from abroad is -$2 billion, total investment will be
A) $74 billion.
B) $57 billion.
C) $45 billion.
D) $47 billion.
Answer: D
Diff: 3   Type: MC   Page Ref: 34

73) If we choose 2007 as a base year, then in 2007
A) nominal GDP will be greater than real GDP.
B) nominal GDP will be smaller than real GDP.
C) nominal GDP will be the same as real GDP.
D) we cannot compare nominal GDP and real GDP without having their actual values.
Answer: C
Diff: 2   Type: MC   Page Ref: 36

74) The GDP deflator and the CPI
A) measure the aggregate price level.
B) measure real GDP and nominal GDP, respectively.
C) measure inflation.
D) measure nominal GDP and real GDP, respectively.
Answer: A
Diff: 1   Type: MC   Page Ref: 37

75) The fact that Dollarama's sales increased during the recent recession indicates that
A) inflation measured by the CPI understates the true increases in the cost of living.
B) the CPI is a better measure for the cost of living than the GDP deflator.
C) inflation measured by the CPI overstates the true increases in the cost of living.
D) the CPI understates the actual cost of living.
Answer: C
Diff: 2   Type: MC   Page Ref: 38

76) The real interest rate
A) is always positive.
B) can be negative.
C) is always greater than the nominal interest rate.
D) is always smaller than the nominal interest rate.
Answer: B
Diff: 2   Type: MC   Page Ref: 41

2.2   Essay Questions

1) Carl's Computer Centre sells computers to business firms. Businesses then use the computers to produce other goods and services. Over the past year, sales representatives were paid $3.5 million, $0.5 million went for taxes, $0.5 million was profit for Carl, and $10 million was paid for computers at the wholesale level. What was the firm's total contribution to GDP?
Answer: $4.5 million. Note that the $10 million paid for computers is not part of value added. Note also that the fact that the firm produces an intermediate good doesn't mean that it doesn't contribute to GDP.
Diff: 2   Type: ES   Page Ref: Sec. 2.1

2) What is the main conceptual difference between GDP and GNP? How different are GDP and GNP for Canada? For countries with many citizens who work abroad?
Answer: GDP represents output produced within a country, while GNP represents output produced by a country's factors of production; the difference is net factor payments from abroad. For Canada there's a three percent difference, but for countries that have many citizens working abroad, there may be a much bigger difference.
Diff: 1   Type: ES   Page Ref: Sec. 2.2

3) Citizens of the country of Heehaw produce hay and provide entertainment services (banjo playing). In 1998 they produced $15 million worth of hay, with $11 million consumed domestically and the other $4 million sold to neighbouring countries. They provided $7 million worth of banjo-playing services, $5 million in Heehaw and $2 million in neighbouring countries. They purchased $6 million worth of soda pop from neighbouring countries. Calculate the magnitudes of GNP, GDP, net factor payments from abroad, net exports, and the current account balance.
Answer: GNP is output by citizens, which equals $15 million + $7 million = $22 million. GDP is output produced in the country, which equals $15 million (hay) + $5 million (domestic banjo playing) = $20 million. Net factor payments from abroad represent the difference between GNP and GDP; this is the $2 million paid for banjo playing in other countries. Net exports are $4 million (hay sold abroad) minus $6 million (soda pop imports) = -$2 million. (Note that banjo playing abroad is not part of GDP, so it is not part of net exports either.) The current account balance is net exports + net factor payments = -$2 million + $2 million = 0.
Diff: 3   Type: ES   Page Ref: Sec. 2.2

4) Explain why in agricultural countries the official GDP are often underestimated.
Answer: Since in agricultural countries many people grow their own food, make their own clothes, and provide services for each other within a family or village group, these non-market activities are not counted in the official GDP.
Diff: 3   Type: ES   Page Ref: Sec. 2.2

5) In the country of Kwaki, people produce canoes, fish for salmon, and grow corn. In 2002 they produced 5000 canoes using labour and natural materials only, but sold only 4000, as the economy entered a recession. The cost of producing each canoe was $1000, but the ones that sold were priced at $1250. They fished $30 million worth of salmon. They used $3 million of the salmon as fertilizer for corn. They grew and ate $55 million of corn. What was Kwaki's GDP in 2002?
Answer: Inventories are valued at the cost of production, so the 1000 canoes in inventory were valued at $1000 each, for a total of $1 million. Four thousand canoes at $1250 each totaled $5 million. Salmon as a final good were worth $27 million (the other $3 million were used up as an intermediate good), and corn worth $55 million was grown. So total GDP (in millions) was $1 + $5 + $27 + $55 = $88 million.
Diff: 2   Type: ES   Page Ref: Sec. 2.2

6) Pete the Pizza Man produced $87 thousand worth of pizzas in the past year. He paid $39 thousand to employees, paid $11 thousand for vegetables and other ingredients, and paid $5 thousand in taxes. He began the year with ingredient inventories valued at $1 thousand, and ended the year with inventories valued at $2 thousand. What was Pete's (and his employees') total contribution to GDP this year?
Answer: $87 thousand - $11 thousand paid for intermediate goods + $1 thousand change in inventories = $77 thousand.
Diff: 2   Type: ES   Page Ref: Sec. 2.2

7) What is the difference between nominal and real economic variables? Why do economists tend to concentrate on changes in real magnitudes?
Answer: Nominal variables are in units of money, while real variables are in physical quantities of output. We measure nominal variables using current market prices and real variables using market prices in a given base year. Nominal variables may increase, but you don't know if the increase is due to higher prices and the same quantity, or a higher quantity with unchanged prices; real variables reflect just quantity changes. For the most part, real variables (consumption, investment, the capital stock) affect each other in the economy, with lesser roles played by nominal variables (money supply, price level).
Diff: 1   Type: ES   Page Ref: Sec. 2.4

8) The country of Myrule has produced the following quantity of gauges and potatoes, with the price of each listed in dollar terms:

Good	2001 Quantity	2001 Price	2002 Quantity	2002 Price
Gauges	8000	$4	10000	$3
Potatoes	6000	$8	5000	$14

a. Using a fixed-weight price index, with 2001 as the base year, what are the price indexes for 2001 and 2002? What is the inflation rate using this index? What is the percent change in real output using this index?
b. Using a variable-weight price index, with 2001 as the base year, what are the price indexes for 2001 and 2002. What is the inflation rate using this index? What is the percent change in real output using this index?
Answer:
a. Fixed-weight price index
   2001 price index = 1.00

   2002 price index = base-year output at current prices/base-year output at base-year prices = $[(8000 \times 3) + (6000 \times 14)] / [(8000 \times 4) + (6000 \times 8)] = 108{,}000 / 80{,}000 = 1.35$

   Inflation rate = $[(1.35/1) - 1] \times 100\% = 35\%$
   Nominal GNP (2001) = $(8000 \times 4) + (6000 \times 8) = 80{,}000$
   Nominal GNP (2002) = $(10{,}000 \times 3) + (5000 \times 14) = 100{,}000$
   Real GNP (2001) = nominal GNP (2001) = 80,000
   Real GNP (2002) = nominal GNP (2002)/price index = 100,000/1.35 = 74,074
   Real output growth = $[(74{,}074/80{,}000) - 1] \times 100\% = -7.4\%$

b. Variable-weight price index
   2001 price index = 1.00

   2002 price index = current-year output at current prices/current-year output at base-year prices = $[(10{,}000 \times 3) + (5000 \times 14)] / [(10{,}000 \times 4) + (5000 \times 8)] = 100{,}000 / 80{,}000 = 1.25$

   Inflation rate = $[(1.25/1) - 1] \times 100\% = 25\%$
   Real GNP (2001) = nominal GNP (1998) = 80,000
   Real GNP (2002) = nominal GNP (1999)/price index = 100,000/1.25 = 80,000
   Real output growth = $[(80{,}000/80{,}000) -1] \times 100\% = 0\%$

Note that one price rose, while the other price fell, so the change in real GNP depends on the type of index you choose. If all prices rise at the same rate, the choice of index doesn't matter.
Diff: 3   Type: ES   Page Ref: Sec. 2.4

9) For 2002 Kwakian economy had the following nominal quantities (in billions of dollars) and price indexes (1997 = 100) for each category of expenditure:

	Nominal Value	Price Index
Consumption	423.1	125.1
Fixed investment	112.0	111.0
Government purchases	165.8	123.2
Exports	180.4	100.9
Imports	186.7	97.2
Change in inventories	−3.28	111.0

a. Calculate the real quantity for each category (to one decimal point).
b. Calculate nominal and real GDP.
c. Find the implicit price deflator (1997 = 100).
Answer:
a. Real C = 423.1/1.251 = 338.2; real fixed I = 100.9; real G = 134.5; real exports = 180.4/1.0009 = 179; real imports = 186.7/.972 = 192.1; real CPI = -3.28/1.11 = -2.95.
b. Add up the nominal quantities (but subtract imports) to get 691.32. Add up the real quantities (but subtract imports) in part a to get 563.25.
c. The implicit deflator is nominal GDP/real GDP × 100 = 691.32/563.25 × 100 = 122.0.
Diff: 3   Type: ES   Page Ref: Sec. 2.4

10) Nominal GDP in Kwaki was $674.8 billion in 2001 and $688.4 billion in 2002. The GDP deflator was 121.6 for 2001 and 123.3 for 2002.

a. What is the growth rate of nominal GDP between 2001 and 2002?
b. What is the inflation rate from 2001 to 2002?
c. What is the growth rate of real GDP from 2001 to 2002?
Answer:
a. 2%
b. 1.4%
c. 0.6%
Diff: 2   Type: ES   Page Ref: Sec. 2.4

11) The nominal interest rate is 750, today's price level is 150, and you expect the price level to be 156 one year from now. What is the expected inflation rate? What is the expected real interest rate?
Answer: Expected inflation = 156/150 - 1 = .04 = 4%; expected real interest rate = 7% - 4% = 3%.
Diff: 1   Type: ES   Page Ref: Sec. 2.4

12) Explain why CPI inflation overstates increases in the cost of living.
Answer: One reason is the quality adjustment bias, which means that CPI does not fully account for the changes in the quality of goods and services. Another reason is the substitution bias. That is, CPI is based on a fixed basket of goods and services, but consumers may substitute goods and services with lower prices with those of higher prices. Therefore, higher prices may not necessary decrease the cost of living as CPI suggests.
Diff: 1   Type: ES   Page Ref: Sec. 2.4

13) In 2012, consumers in Saskatchewan spent $40,851 million, total investment was $18,873 million, changes in inventory were $186 million, government purchase of goods and services was $2,220 million, exports were $39,249 million, and imports were $41,799 million. All figures are in 2007 dollar.

a. Calculate 2012 real GDP (in 2007 dollars).

b. Nominal GDP in 2012 was $77,929. What was the GDP deflator in 2012?

c. In 2011, real GDP was $58,184 million and the GDP deflator was 126.2. What were the growth rate and inflation rate in 2012?

d. Given a total population of 1.11 million, what was per capita GDP in Saskatchewan in 2012?

Answer:

a. Real GDP = $59,580

b. GDP deflator = 130.8

c. Growth rate = 2.4%

d. Per capita GDP = $53.68

Diff: 2   Type: ES   Page Ref: Sec. 2.2