



Midterm Examination I

Spring, 2015

Course number: ECON 102
Course title: Introductory Macroeconomics
Section(s): 001 and 002
Name of instructor: Zhen He
Date of exam: June 5th, 2015
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Duration of exam: 1.5 hours
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Material allowed: Standard Calculator
Exams are printed double sided on white paper.

Student name: _____
(First name) (Last name)

Waterloo student ID #: _____

Course Section #: _____

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1. Which one of the following topics does macroeconomics study?
 - A) prices of individual goods and services
 - B) the performance of the global economy
 - C) decisions of individual firms
 - D) effects of taxes on the price of gasoline
 - E) effects of government safety regulations on the price of cars
2. The inescapable economic fact is that
 - A) there are unlimited resources, and we just have to figure out how to allocate them.
 - B) there are unlimited wants and limited resources.
 - C) capitalists are always exploiting the workers.
 - D) capitalists and unions cannot work together.
 - E) unions are always exploiting firms.
3. An art museum decides to offer tours by having visitors listen to CDs rather than have tour guides. The museum is answering the _____ question.
 - A) "how"
 - B) "what"
 - C) "who"
 - D) "when"
 - E) "where"
4. The fact that some people can afford to live in beautiful homes while others are homeless is an example of an economy facing the _____ question.
 - A) "when"
 - B) "for whom"
 - C) "what"
 - D) "where"
 - E) "how"
5. Which statement about incomes earned by factors of production is *false*?
 - A) Entrepreneurship earns profit.
 - B) Labour earns wages.
 - C) Capital earns profit.
 - D) Land earns rent.
 - E) Natural resources earn rent.
6. Which one of the following is an example of land?
 - A) a road
 - B) Bono's singing voice
 - C) a computer program
 - D) Lake Erie
 - E) a tractor
7. During the next hour John can choose one of the following three activities: playing basketball, watching television, or reading a book. The opportunity cost of reading a book
 - A) is the value of playing basketball *and* the value of watching television.
 - B) is the value of watching television if John prefers playing basketball to watching television.
 - C) depends on how much the book cost when it was purchased.
 - D) depends on how much John enjoys the book.
 - E) is the value of playing basketball if John prefers that to watching television.
8. Which one of the following is a necessary consequence of scarcity?
 - A) the requirement of making choices
 - B) all wants are satisfied
 - C) low profits
 - D) no choices required
 - E) high profits

9. What is the definition of marginal benefit?
- A) the benefit that arises from a decrease in an activity
 - B) the cost of a decrease in an activity
 - C) the benefit that arises from an increase in an activity
 - D) the cost of an increase in an activity
 - E) the sum of benefit and cost that arises from an increase in an activity
10. When asked in an interview what she missed the most because of the time she spent training for the Olympics, a rower, who lived on her own, answered "a normal social life." She also revealed that she had given up a job that paid \$30,000 per year to train fulltime. She received a grant of \$8,000 per year from Sport Canada, but this failed to cover all her training expenses. Her food and rent were \$5,000 per year and training expenses were \$12,000 per year. Aside from the value of a normal social life, what is the annual opportunity cost, expressed in dollars, to this rower of "Going for Gold"?
- A) \$25,000 B) \$34,000 C) \$30,000 D) \$39,000 E) \$4,000
11. Before starring as Tony Stark in *Iron Man*, Robert Downey Jr. had played in 45 movies that had average first-weekend box office revenues of a bit less than \$5 million. *Iron Man* grossed \$102 million in its first weekend. The success of *Iron Man* _____ the opportunity cost of hiring Robert Downey Jr. Movie producers now have _____ incentive to hire Robert Downey Jr.
- A) increases; less
 - B) decreases; zero
 - C) increases; more
 - D) decreases; less
 - E) decreases; more
12. Which of the following is an example of a positive statement?
- A) Canada should cut back on its use of carbon-based fuels such as coal and oil.
 - B) Canada should have lower tax rates for wealthier Canadians.
 - C) The Bank of Canada ought to cut the interest rate.
 - D) Increasing the minimum wage results in more unemployment.
 - E) Every Canadian should have equal access to health care.

Use the figure below to answer the following questions.

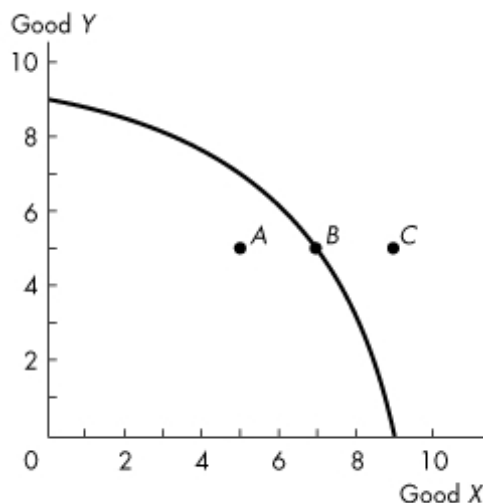


Figure 2.1.1

13. Complete the following sentence. In Figure 2.1.1,
- A) some resources must be unused at point C.
 - B) the concept of decreasing opportunity cost is illustrated.
 - C) movement from C to B would require a technological improvement.
 - D) point B is a point of production efficiency.
 - E) movement from A to B would require a technological advance.
14. If Harold can increase production of good X without decreasing production of any other good, then Harold
- A) must prefer good X to any other good.
 - B) is producing inside his production possibilities frontier.
 - C) is producing outside his production possibilities frontier.
 - D) must have a linear production possibilities frontier.
 - E) is producing on his production possibilities frontier.
15. Opportunity cost of an action is
- A) the comparative cost.
 - B) the best choice that can be made.
 - C) the highest-valued alternative forgone.
 - D) the absolute cost.
 - E) the money cost.
16. The existence of *increasing* opportunity cost
- A) follows from the existence of property rights.
 - B) explains why specialization is frequently useful.
 - C) explains why resources are scarce.
 - D) explains why some societies produce inside their production possibilities frontier.
 - E) explains the bowed-out shape of the production possibilities frontier.

Use the figure below to answer the following questions.

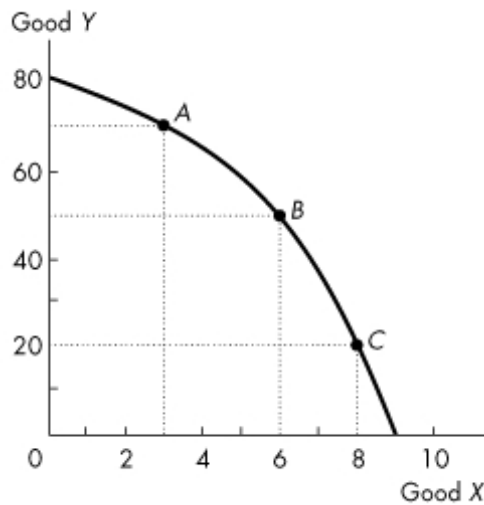


Figure 2.1.2

17. Refer to the production possibilities frontier in Figure 2.1.2. Suppose that 50 units of Y are currently being produced. Then
- A) 9 units of X can be produced if all resources are used and assigned to the task for which they are the best match.
 - B) resources are not being fully utilized.
 - C) 6 units of X are being produced.
 - D) 6 units of X can be produced if all resources are used and assigned to the task for which they are the best match.
 - E) 7 units of X are being produced.
18. Refer to the production possibilities frontier in Figure 2.1.2. At point C, the opportunity cost of producing one more unit of X is
- A) 20 units of X.
 - B) 1 unit of Y.
 - C) 8 units of X.
 - D) 1 unit of X.
 - E) 20 units of Y.

Use the table below to answer the following questions.

Table 2.1.1

The following table gives points on the production possibilities frontier for goods X and Y.

Point	Production of X	Production of Y
A	0	40
B	4	36
C	8	28
D	12	16
E	16	0

19. From the data in Table 2.1.1, the production of 7 units of X and 28 units of Y is

- A) on the PPF between points C and D.
- B) on the PPF between points B and C.
- C) outside the PPF.
- D) unattainable.
- E) attainable but leaves some resources unused or misallocated or both.

Use the table below to answer the following questions.

Table 2.1.3

Production possibilities for a society that produces only two goods — hockey sticks and maple leaves.

Possibility	Units of Hockey Sticks	Units of Maple Leaves
A	3	0
B	2	3
C	0	9

20. Refer to Table 2.1.3. In moving from combination C to combination B, the opportunity cost of producing *one* additional hockey stick is

- A) 1/3 maple leaves.
- B) 1/2 maple leaves.
- C) 1/6 maple leaves.
- D) 2 maple leaves.
- E) 3 maple leaves.

Use the figure below to answer the following question.

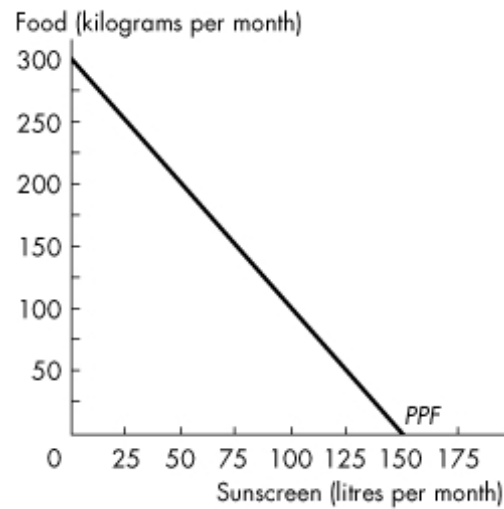


Figure 2.1.5

21. The graph in Figure 2.1.5 shows Sunland's *PPF* for food and sunscreen. Sunland faces _____ opportunity cost of food and _____ opportunity of sunscreen, which can be seen by the shape of the *PPF*.
- A) a decreasing; an increasing
 - B) an increasing; an increasing
 - C) an increasing; a decreasing
 - D) a decreasing; a decreasing
 - E) a constant; a constant

Use the figure below to answer the following question.

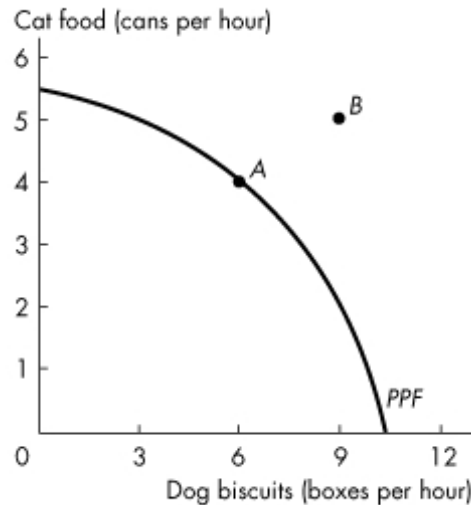


Figure 2.1.6

22. Figure 2.1.6 shows the production possibilities frontier for a firm that produces pet food. Point A is _____ and point B is _____. This *PPF* _____ illustrate scarcity because _____.
- A) unattainable; attainable; does not; the firm can produce any quantity it wants if it is willing to pay a high enough price
 - B) attainable; unattainable; does; the firm cannot produce points outside the frontier and as the firm moves along the *PPF*, it cannot produce more dog biscuits without producing less cat food
 - C) attainable; unattainable; does not; it is downward sloping
 - D) attainable; unattainable; does not; the firm can produce any quantity it wants if it is willing to pay a high enough price
 - E) unattainable; attainable; does; because the firm cannot attain the points outside the frontier
23. With allocative efficiency, for each good produced,
- A) marginal cost exceeds marginal benefit by as much as possible.
 - B) marginal benefit equals marginal cost.
 - C) marginal benefit is at its maximum.
 - D) marginal cost is at its minimum.
 - E) marginal benefit exceeds marginal cost by as much as possible.
24. A production possibilities frontier will shift outward for all of the following reasons *except*
- A) an increase in the stock of capital.
 - B) a technological improvement.
 - C) an increase in the labour force.
 - D) opportunity cost is increasing.
 - E) none of the above.

25. Suppose a hurricane causes extensive devastation, destroying houses, roads, schools and factories. What would be the effect of this hurricane on a production possibilities frontier consisting of consumption goods and capital goods?
- A) There would be a movement along the existing production possibilities frontier towards a less capital-intensive point.
 - B) It would shift inward at all points.
 - C) There would be a movement along the existing production possibilities frontier towards a more capital-intensive point.
 - D) It would shift outward at all points.
 - E) There would be a movement from the existing production possibilities frontier inwards towards a point with unused or misallocated resources.

Use the information below to answer the following questions.

Fact 2.4.2

Agnes can produce either 1 unit of X or 1 unit of Y in an hour, while Brenda can produce either 2 units of X or 4 units of Y in an hour.

26. Refer to Fact 2.4.2. Which one of the following statements is true?
- A) Brenda will not gain from trade.
 - B) Agnes has a comparative advantage in the production of Y.
 - C) Brenda has a comparative advantage in the production of X.
 - D) Agnes will not gain from trade.
 - E) Brenda has an absolute advantage over Agnes in the production of both goods.
27. Complete the following sentence. Given Fact 2.4.2,
- A) there will be no gains from trade because Agnes has an absolute advantage.
 - B) there will be gains from trade only if Agnes becomes faster at producing X.
 - C) there will be gains from trade if Agnes specializes in the production of X and Brenda in Y.
 - D) there will be gains from trade, no matter what Brenda and Agnes specialize in, as long as they specialize.
 - E) there will be gains from trade only if Agnes specializes in the production of Y and Brenda in X.
28. The flows in the market economy that go from firms to households are _____.
The flows in the market economy that go from households to firms are _____.
- A) all flowing through goods markets; all flowing through factor markets
 - B) all flowing through factor markets; all flowing through goods markets
 - C) the income flows of wages, rent, interest, and profits and the flow of expenditure on goods and services; the real flows of goods and services and the real flows of labour, land, capital and entrepreneurship
 - D) the real flows of goods and services and the real flows of labour, land, capital and entrepreneurship; the income flows of wages, rent, interest, and profits and the flow of expenditure on goods and services
 - E) the real flows of goods and services and the income flows of wages, rent, interest and profits; the real flows of labour, land, capital and entrepreneurship and the flow of expenditure on goods and services
29. How many sides does a market have?
- A) one side - buyers
 - B) three sides - buyers, sellers, and the government
 - C) two sides - buyers and sellers
 - D) one side - sellers
 - E) two sides - domestic and foreign

30. Gross domestic product is
- A) the market value of all the intermediate goods and services produced in a country during a given time period.
 - B) the final value of all goods produced in a country in a given time period.
 - C) the average value of output produced in a country in a given time period.
 - D) the market value of all goods and services produced in a country during a given time period.
 - E) the market value of all the final goods and services produced in a country during a given time period.
31. For the aggregate economy, income equals
- A) expenditure equals GDP.
 - B) GDP, but expenditure is generally less than these.
 - C) expenditure equals GDP only if there is no government or foreign sectors.
 - D) expenditure, but these are not generally equal to GDP.
 - E) expenditure equals GDP only if there is no depreciation.
32. Which one of the following is *false*?
- A) $Y + M = C + I + G + X$
 - B) $Y = C + I + G + M - X$
 - C) $X - M = Y - C - I - G$
 - D) $Y - C - I - G - X + M = 0$
 - E) $Y = C + I + G + X - M$

Use the figure below to answer the following questions.

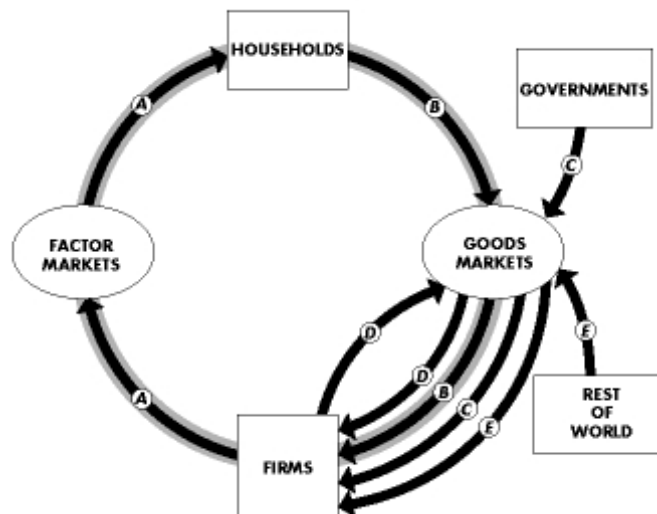


Figure 20.1.1

33. Refer to Figure 20.1.1, which shows the circular flow of expenditure and income for Venus. During 2012, *A* was \$100, *B* was \$50, *C* was \$30 and *D* was \$10. How much is net exports?
- A) \$30
 - B) \$50
 - C) \$10
 - D) \$25
 - E) None of the above

34. Which of the following would *not* be included in GDP for 2011?
- A) A car produced in January of 2011 and sold in November of 2011.
 - B) The value of all cars produced in 2011.
 - C) A car produced in 2011 and held in inventory until 2012.
 - D) A car produced in 2011 and sold in 2012.
 - E) A car produced in 2010 and sold in 2011.
35. From the following list, choose the item that would be included in a current measure of GDP.
- A) a \$2,000 cheque from your Aunt Grace
 - B) the purchase of a previously owned house that was built last year
 - C) a social security cheque for \$500
 - D) income from the sale of your Canadian Snowfun stocks
 - E) the purchase of 10 litres of gasoline for your car

Use the table below to answer the following questions.

Table 20.2.3

Item	Millions of dollars
Wages paid to labour	800,000
Consumption expenditure	650,000
Taxes paid on wages	200,000
Government transfer payments to support unemployed, sick, & aged	50,000
Firms' profits	200,000
Investment	250,000
Taxes paid on profits	50,000
Government expenditure on goods and service	200,000
Exports	250,000
Saving	200,000
Imports	300,000

36. Refer to Table 20.2.3. Consider the economy represented in the table. GDP in this economy, in millions of dollars, is
- A) \$1,150,000
 - B) \$1,050,000.
 - C) \$850,000.
 - D) \$1,350,000.
 - E) none of the above.
37. The purchase of a new home is categorized as _____.
- A) consumption expenditure only if the home owners do not take out a mortgage
 - B) consumption expenditure and investment
 - C) consumption expenditure
 - D) investment only if the home owners take out a mortgage
 - E) investment

38. The four parts of the business cycle occur in the following order:

- A) trough, peak, expansion, recession.
- B) recession, trough, expansion, peak.
- C) expansion, trough, recession, peak.
- D) recession, trough, peak, expansion.
- E) expansion, trough, peak, recession.

Use the table below to answer the following question.

Table 20.4.4

Quantities	2011	2012
Bananas	1,000 bunches	1,100 bunches
Coconuts	500 bunches	525 bunches
Prices	2011	2012
Bananas	\$2 a bunch	\$3 a bunch
Coconuts	\$10 a bunch	\$8 a bunch

39. Refer to Table 20.4.4. The table provides data on the economy of Tropical Republic that produces only bananas and coconuts.

Nominal GDP in 2011 is _____. Nominal GDP in 2012 is _____. The chained-dollar real GDP in 2012 expressed in 2011 dollars is _____.

- A) \$7,000; \$7,500; \$7,500
- B) \$1,500; \$1,625; \$1,575
- C) \$7,000; \$7,500; \$7,472.50
- D) \$7,450; \$7,500; \$7,000
- E) \$7,000; \$7,500; \$7,450

40. In a country with a working-age population of 20 million, 13 million are employed, 1.5 million are unemployed, and 1 million of the employed are working part-time, half of whom wish to work full-time. The size of the labour force is

- A) 20 million.
- B) 13 million.
- C) 15.5 million.
- D) 11.5 million.
- E) 14.5 million.

41. In a country with a working-age population of 30 million, 18 million are employed, 2 million are unemployed, and 2 million of the employed are working part-time, half of whom wish to work full-time. The unemployment rate is

- A) 11.1 percent.
- B) 9.1 percent.
- C) 14.3 percent.
- D) 10 percent.
- E) none of the above.

42. Which one of the following people is cyclically unemployed?

- A) a Nova Scotia fishery worker who is searching for a better job closer to home
- B) an office worker who has lost her job because of a general slowdown in economic activity
- C) a Saskatchewan welder who lost her job when her company relocated to B. C. and is currently looking for a job
- D) a steel worker who is laid off but who expects to be called back soon
- E) none of the above

43. If the economy is at full employment, then
- A) the entire population is employed.
 - B) all unemployment arises from normal frictions and structural change.
 - C) the entire labour force is employed.
 - D) the unemployment rate is less than 3 percent.
 - E) the only unemployment is frictional unemployment plus discouraged workers.
44. Michael lost his job as a night security guard because he kept falling asleep at the job. Now he is looking for a new job. Michael is
- A) cyclically unemployed.
 - B) frictionally unemployed.
 - C) structurally unemployed.
 - D) not unemployed.
 - E) none of the above.
45. When the unemployment rate is less than the natural unemployment rate, real GDP is _____ than potential GDP and the output gap is _____.
- A) smaller; positive
 - B) greater; positive
 - C) smaller; negative
 - D) greater; equal to zero
 - E) greater; negative
46. The reference base period is 2002. A consumer price index of 122 in 2012 means that
- A) if the price of a good was \$100 in 2002, its price in 2012 is \$122.
 - B) the market basket of consumer goods that cost \$122 in 2002 can be purchased for \$100 in 2012.
 - C) the average of the prices paid by urban consumers for a fixed market basket of consumer goods and services was 22 percent higher in 2012 than it was on average during 2002.
 - D) prices of consumer goods have more than doubled.
 - E) prices of consumer goods have gone up by a factor of 12.2.
47. If the CPI was 180 at the end of 2011, and 216 at the end of 2012, the inflation rate in 2012 was
- A) 20 percent.
 - B) 18 percent.
 - C) 36 percent.
 - D) 16.67 percent.
 - E) 216 percent.

Use the table below to answer the following question.

Table 21.3.2
Data From Southton

	Price (dollars)	Price (dollars)	Quantity (number)	Quantity (number)
Item	Base	Current	Base	Current
Rubber Ducks	1.00	1.25	100	100
Beach Towels	9.00	6.00	12	14

48. Refer to Table 21.3.2. From the data in Table 21.3.2, what is Southton's consumer price index for the current year?
- A) 100.5 B) 112 C) 100 D) 94.7 E) 105.6
49. If the inflation rate is positive, the price level in an economy is
- A) rising.
B) zero.
C) falling rapidly.
D) falling slowly.
E) constant.
50. The price indexes that are alternatives to the CPI are _____.
- A) the core GDP deflator and the CPI deflator
B) the GDP deflator and the CPI deflator
C) the unbiased CPI and the unbiased GDP deflator
D) the GDP deflator and the chained price index for consumption
E) the chained price index for consumption and the CPI deflator

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