

## ANSWER KEY

**Economics 1012B**  
**Introduction to Macroeconomics**  
**Spring 2006**  
**Dr. R. E. Mueller**  
**First Midterm Examination**  
**February 2, 2006**

Answer all of the following questions by selecting the most appropriate answer on your bubble sheet. Be sure to read each question carefully. Each question is worth 2 points (100 points total) and will count as 20 per cent of your final course grade.

**NOTE: The use of calculators is prohibited.**

1. Economics is the study of:
- A) how businessmen can be better managers.
  - B) how human beings develop institutions to distribute limited resources.
  - C) how individuals, firms and governments make optimal choices from among a set of alternatives when facing scarce resources.
  - D) the factors that produce perceived scarcity and how such scarcity can be reduced.

Ans: C

Feedback: See the definition in the text.

2. Which of the following would be part of economics, as defined by your textbook:
- A) The federal government deciding which Quebec advertising firms receive money under its former Sponsorship program.
  - B) A student deciding whether to take an economics course or an English literature course.
  - C) A 3-year old deciding whether to play with his/her colouring book or take a nap.
  - D) All of the above are economic choices.

Ans: D

Feedback: All of the choices involve either individuals or governments trying to make choices from a set of alternatives when faced with scarce resources.

3. If allocating dorm rooms changes from allocation by lottery to allocation by the market:
- A) it becomes an economic problem.
  - B) it becomes a political problem but not an economic problem.
  - C) it becomes a social problem but not an economic problem.
  - D) the allocation problem is still an economic problem.

Ans: D

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Feedback: The economic problem arises when limited resources must be allocated among individuals. The economic problem here existed before any allocation mechanism was chosen.

4. Economics is the study of situations where:

- A) people have limited resources.
- B) scarcity is not a problem.
- C) individuals have no choices but to follow the dictates of large multinational corporations and government.
- D) individuals make poor decisions that are not in their self interest.

Ans: A

Feedback: Economics is the study of individuals making optimal decisions over more than one alternative subject to conditions of scarcity (limited resources).

5. According to the text, economics includes the study of

- A) individuals, firms and governments making optimal decisions.
- B) individuals, firms and governments making decisions when faced with scarce resources.
- C) individuals, firms and governments making decisions when faced with more than one alternative.
- D) all of the above.
- E) none of the above

Ans: D

Feedback: See definition of economics.

6. The marginal benefit from consuming another unit of a good:

- A) must equal the marginal cost or the unit will not be consumed.
- B) must be less than the marginal cost or the unit will not be consumed.
- C) equals the increase in total benefits from consuming the unit.
- D) equals the total benefit obtained from the consumption of all prior units.

Ans: C

Feedback: See the definition of marginal benefit in the text.

7. Sunk costs:

- A) are an essential part of economic reasoning.
- B) are irrelevant to economic reasoning.
- C) should be considered, but only when marginal cost is less than marginal benefit.
- D) should be considered only when there is no information about marginal cost and marginal benefit.

Ans: B

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Feedback: Sunk costs are costs that have already been incurred and cannot be recaptured. They are in essence "water under the bridge" and as such, they do not influence economic decisions.

8. The table below shows how the marginal benefit of pizza dinners varies for Luigi with the number consumed per month.

Dinners per month	Marginal benefit
1	\$4.00
2	\$3.00
3	\$2.00
4	\$1.00

Suppose the price per dinner is \$4.99 and accurately reflects the marginal cost of the dinners to Luigi. Assuming that Luigi is rational:

- A) he will not consume any pizza dinners this month.
- B) he will consume 1 pizza dinner this month.
- C) he will consume 2 pizza dinners this month.
- D) he will consume 3 pizza dinners this month.

Ans: A

Feedback: The economic decision rule is to do it if the relevant (marginal) benefits exceed the relevant (marginal) costs. If they don't, don't do it. Following the economic decision rule, Luigi will consume no pizza dinners this month since the marginal cost of a pizza dinner (\$4.99) is less than the marginal benefit of even 1 dinner.

9. Which of the following *best* defines rational behaviour?

- A) Analyzing the total gains from a decision.
- B) Improving net gain by pursuing decisions as long as the marginal benefits exceed the marginal costs.
- C) Seeking to gain by choosing to undertake actions as long as the marginal costs exceed the associated marginal benefits.
- D) Seeking to maximize total gain regardless of cost.

Ans: B

Feedback: This is the economic decision rule discussed in the text.

10. The marginal benefit of going to a movie during the week is currently \$6 for you. Assume that the price of going to the movies, (\$4) measures its marginal cost. Following the economic decision rule, you will

- A) continue going to movies until the marginal benefit of doing so falls to zero.
- B) choose not to go to any movies during the week.
- C) continue going to movies until the marginal benefit of doing so falls to \$4.
- D) not be able to enjoy a net gain from going to the movies during the week.

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Ans: C

Feedback: You will continue to go to the movies until the marginal benefit falls beneath the marginal cost.

11. Which of the following is NOT a characteristic of a market economy?

- A) government ownership of capital.
- B) private ownership of land.
- C) freedom of enterprise.
- D) workers are free to seek the jobs of their choice.

Ans: A

Feedback: A market economy is an economic system based on private property and the market. It gives private property rights to individuals and relies on the self-interest of individuals and market forces to coordinate economic activity. Government ownership of capital is a characteristic of command economies.

12. Suppose there is a shortage of desirable apartments and that they are being allocated by the market. In order for the market to coordinate the demand for apartments, the price of apartments will have to:

- A) rise.
- B) fall.
- C) stay the same.
- D) be controlled.

Ans: A

Feedback: If apartments are in short supply, some people who cannot find apartments will begin to knock on landlord's doors and offer higher rent. Some landlords will fix up empty apartments to rent, throw out existing tenants, or build apartments to take advantage of the rent offered. This is the price mechanism at work.

13. In a mixed economy

- A) governments play an important role.
- B) private markets play an important role.
- C) government regulates some private markets.
- D) all of the above.
- E) none of the above.

Ans: D

Feedback: In market economies both government and private firms play important roles. One role of government is to regulate some private markets.[]

14. The period 1750-1900, during which technology and machines rapidly modernized production, is general called the:

- A) Industrial Enlightenment.
- B) Industrial Revolution.
- C) feudalistic period.

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D) mercantilistic period.

Ans: B

Feedback: The Industrial Revolution is a time when technology and machines rapidly modernized industrial production and mass-produced goods replaced hand-made goods.

15. You can determine all the following using a production possibility table EXCEPT:

- A) what combination of outputs can be produced.
- B) how much less of one output can be produced if more of another output is produced.
- C) what combination of outputs is best.
- D) how much output can be produced from a given level of inputs.

Ans: C

Feedback: A production possibility table tells what combinations of goods can be produced, not what combination is best.

16. Evan can grow both roses and carnations in his garden. His production possibility table is given below. If he is currently producing 110 roses, his opportunity cost of producing 40 more roses is:

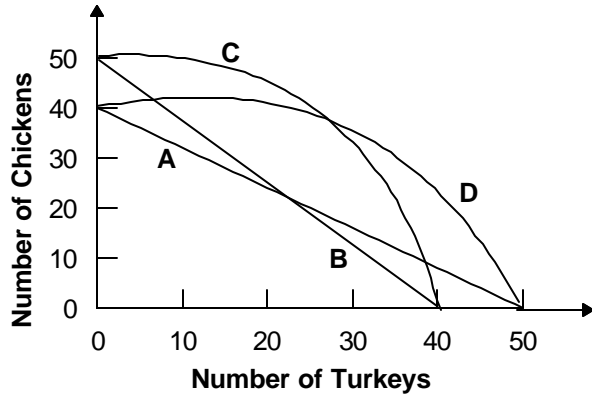
Number of roses	Number of carnations
0	155
60	135
110	109
150	78
180	0

- A) 20 carnations.
- B) 26 carnations.
- C) 31 carnations.
- D) 78 carnations.
- E) none of the above

Ans: C

Feedback: Producing an extra 40 roses means not producing 31 (109-78) carnations.

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17. Refer to the graph above. Suppose that the opportunity cost of producing 10 chickens is always 8 turkeys. Given this, the relevant production possibility curve must be

- A) A
- B) B
- C) C
- D) D.

Ans: B

Feedback: This is the only curve along which opportunity cost is constant and equal to 0.8 turkeys per chicken.

18. If a production possibility curve representing a tradeoff between a grade in English and a grade in math has a negative slope we know that:

- A) there is a direct relationship between grades in English and grades in math.
- B) there is no relationship between grades in English and grades in math.
- C) there is an inverse relationship between grades in English and grades in math.
- D) one can get better grades in English only if one gets better grades in math.

Ans: C

Feedback: The negative slope of the production possibility curve implies that one can get better grades in English only by sacrificing better grades in math.

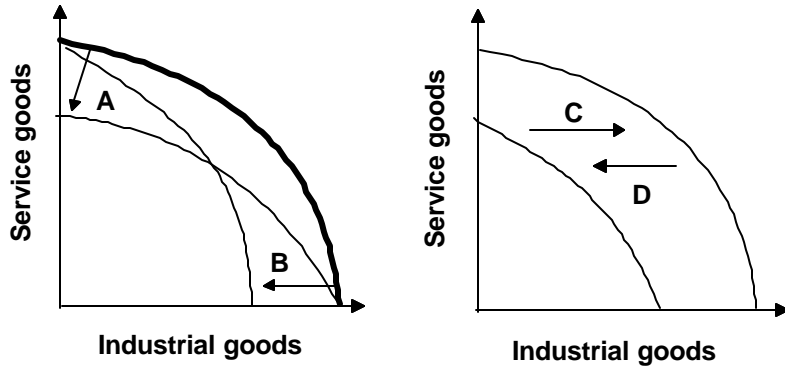
19. The term efficiency means:

- A) using the quickest methods to obtain a goal.
- B) using the most effective methods to yield maximum benefits.
- C) using the cheapest means to achieve a reasonable outcome.
- D) any means necessary to achieve the maximum possible benefits.
- E) laying off workers and downsizing.

Ans: B

Feedback: See the definition of efficiency in the text.

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20. Refer to the graph above. Which of the shifts explains what would happen to the production possibility curve if political unrest and strikes disrupt all sectors of an economy equally?

- A) A
- B) B
- C) C
- D) D

Ans: D

Feedback: Since the entire economy will be adversely affected, the entire production possibility curve will shift in.

21. Specialization and the division of labour help to explain why:

- A) economic growth increased markedly after the seventeenth century.
- B) trade increases the set of possible production points.
- C) trade makes individuals better off.
- D) all of the above.
- E) none of the above.

Ans: D

Feedback: See the text for a discussion of each of these propositions.

22. Households are on the:

- A) supply side of factor markets and the demand side of goods markets.
- B) demand side of factor markets and the supply side of goods markets.
- C) supply side of both factor markets and goods markets.
- D) demand side of both factor markets and goods markets.

Ans: A

Feedback: Households supply labour to business in the factor market and demand goods and services from business in the goods market.

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23. Consumer sovereignty is the principle that
- A) consumer desires are controlled by the market.
  - B) price equilibrates supply and demand.
  - C) consumer desires determine what is produced.
  - D) profitability determines what goods will be produced.

Ans: C

Feedback: Consumer sovereignty is the concept that consumers determine what is produced.

24. The largest source of household income in Canada is:
- A) stock dividends.
  - B) wages and salaries.
  - C) interest earnings.
  - D) rental income.

Ans: B

Difficulty: Medium

Feedback: The text states that the largest source of household income is wages and salaries.

25. Governments that intervene in an economy in a way that influences the relationship between households and businesses:
- A) serve as economic actors.
  - B) serve as economic referees.
  - C) serve the public good.
  - D) reduce social welfare by interfering with the invisible hand.

Ans: B

Feedback: Government actions that affect the relationship between households and businesses are in principle designed to level the playing field between the two.

26. Since the early 1950s, Canada has
- A) been a net importer of merchandise.
  - B) consistently had a surplus on its current account.
  - C) been a net exporter of services.
  - D) been a net importer of services.

Ans: D

Feedback: Canada has been a net importer of services since the 1950s.

27. Canadian exports represent about what percentage of Canada's GDP?
- A) 40 percent.
  - B) 10 percent.
  - C) 60 percent.
  - D) 90 percent.



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Ans: A

Feedback: See the trade data in the text.

28. If a country has a trade deficit, it is:
- A) consuming more than it is producing.
  - B) lending to foreigners.
  - C) selling financial assets.
  - D) selling real assets.

Ans: A

Feedback: If a country has a trade deficit, it is importing (consuming) more than it is exporting (producing).

29. If the price of movies on video rises while the price of movies on DVD remains the same, the law of demand predicts that consumers will:
- A) substitute movies on video for movies on DVD.
  - B) substitute movies on DVD for movies on video.
  - C) buy only movies on video.
  - D) buy only movies on DVD.

Ans: A or B

Feedback: This question is ambiguous so either A or B could be correct. The law of demand is based on the principle that consumers will substitute away from products that have become relatively more expensive; this does not mean that they will necessarily stop buying more expensive products.

30. The distinction between demand and the quantity demanded is best made by saying that:
- A) demand is represented graphically by a curve and quantity demanded as a point on that curve.
  - B) the quantity demanded is represented graphically by a curve and demand as a point on that curve.
  - C) the quantity demanded is in a direct relation with prices, whereas demand is in an inverse relation.
  - D) the quantity demanded is in an inverse relation with prices, whereas demand is in a direct relation.

Ans: A

Feedback: Demand refers to a schedule of quantities that will be bought per unit of time at various prices. It refers to the entire demand curve. Quantity demanded refers to a specific amount that will be demanded per unit of time at a specific price. It refers to a point on a demand curve.

31. To derive a market demand curve from individual demand curves, you
- A) take the maximum quantity of each demand curve as the market quantity demanded

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at each price.

- B) sum the curves horizontally, adding quantities demanded at each price.
- C) take the demand curve that is the furthest to the right as the market demand curve.
- D) multiply the quantities demanded on each demand at each price to find the market quantity demanded at each price.

Ans: B

Feedback: The market demand is the sum of the individual quantities demanded at each price.

32. The law of supply states that, other things equal:

- A) as the price of a good goes up, the quantity supplied goes up.
- B) as the price of a good goes up, the supply goes down.
- C) as the price of a good goes down, the quantity supplied goes up.
- D) as the price of a good goes down, the supply goes down.

Ans: A

Feedback: The law of supply states that, other things equal as the price of a good goes up, the quantity supplied goes up and as the price of a good goes down, the quantity supplied goes down.

33. According to the law of supply, it takes an increase in the \_\_\_\_\_ of a product, other things constant, to motivate firms to increase their quantity supplied of that product.

- A) production cost
- B) opportunity cost
- C) price
- D) supply

Ans: C

Feedback: The law of supply refers to a firms' ability to substitute production toward those goods whose price has risen. Increased cost causes a reduction in supply.

34. When applied to labour markets, the law of supply suggests that:

- A) an increase in the wages earned by nurses will cause the quantity of nurses supplied to increase.
- B) a decrease in the wages earned by nurses will cause the quantity of nurses supplied to increase.
- C) an increase in the wages earned by nurses will cause the quantity of nurses demanded to increase.
- D) a decrease in the wages earned by nurses will cause the quantity of nurses demanded to increase.

Ans: A

Feedback: The law of supply states that as the price of a good rises, the quantity of it supplied will rise. The law of supply does not address the relationship between price and quantity demanded.

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35. Suppose a recent and widely circulated medical article reports new benefits of exercise. Simultaneously, the price of the parts needed to make bikes falls. What is the likely effect on the equilibrium price and quantity of exercise bikes sold?

- A) Price of exercise bikes decreases and quantity sold remains the same.
- B) Price of exercise bikes increases and quantity sold also increases.
- C) Price of exercise bikes remains the same and quantity sold increases.
- D) The change in price is ambiguous, but the quantity sold increases.

Ans: D

Feedback: The report shifts the demand for bikes to the right and the fall in input prices for bikes shifts the supply for bikes to the right. The effect on price is ambiguous, but the quantity sold increases.

36. At a 1995 Toronto Maple Leafs game 20,000 tickets were sold at \$30 apiece. The game was sold out and some people did not get tickets. This suggests that:

- A) selling price was at equilibrium.
- B) selling price was below equilibrium.
- C) selling price was above equilibrium.
- D) none of the options presented is right.

Ans: B

Feedback: Since there was excess supply, quantity demanded exceeded quantity supplied suggesting selling price was below equilibrium price.

37. In the 1990s, the Internet has begun to provide services before only provided by high-end PCs. At the same time, the price of computer chips to make high-end PCs has fallen by 75 percent. What is the effect of the events on equilibrium price and quantity of high-end PCs?

- A) Price falls continuously as does quantity sold.
- B) Price rises then falls while quantity sold falls continuously.
- C) Price falls continuously while quantity falls initially but then rises, recouping earlier losses.
- D) Price falls continuously and quantity rises continuously.

Ans: C

Feedback: The innovations of the Internet as a substitute for high-end PCs shifts the demand for high-end PCs to the left reducing both their price and quantity sold. The reduction in the price of chips to make computers, however, shifts the supply of high-end PCs to the right which further depresses prices, but leads to increased quantity sold (recouping earlier losses).

38. An increase in quantity and indeterminate change in price is most likely caused by:

- A) a leftward shift in demand and supply
- B) a rightward shift in supply and demand.
- C) a rightward shift in supply, keeping demand constant.

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D) a rightward shift in demand, keeping supply constant.

Ans: B

Feedback: Only a rightward shift in demand and supply will result in a higher quantity, but indeterminate change in price.

39. After several years of slow economic growth, world demand for petroleum began to rise rapidly in the 1990s. Much of the increase in demand was met by additional supplies from sources outside OPEC. OPEC during this time was unable to restrain output among members in its effort to lift oil prices. What best describes these events?

- A) The rise in demand shifted the demand for oil to the right. OPEC actions shifted the demand for oil back to the left.
- B) The rise in demand shifted the demand for oil to the right. As price rose, supply of oil also rose.
- C) The rise in demand shifted the demand for oil to the right. As price rose, quantity of oil supplied rose.
- D) The rise in demand reflects a movement down along the demand curve as supply shifted to the right when suppliers produced more oil.

Ans: C

Feedback: An increase in world demand for oil is reflected by a shift to the right in the demand for oil. As a result, price rose and quantity supplied also rose. That existing suppliers supplied more oil is reflected by the movement along the existing supply curve. OPEC had no effect on the market.

40. Policies that affect work, capital accumulation, and technological change are:

- A) most relevant to the short-run business cycle framework.
- B) most relevant to the long-run growth framework.
- C) relevant to either the short-run business cycle or long-run growth frameworks.
- D) relevant to neither the short-run business cycle nor long-run growth frameworks.

Ans: B

Feedback: Policies that affect work, capital accumulation, and technological change also affect the supply of output and are thus most relevant to the long-run growth framework.

41. The secular trend growth rate:

- A) is the rate of growth in real output in any one year.
- B) is the rate of growth in per capita real output in any one year.
- C) is the average rate of growth in real output over many years.
- D) is the average rate of growth in real per capita output over many years.

Ans: C

Feedback: See the definition of the secular trend growth rate in the text.

42. Economic growth:

- A) has always existed.

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- B) has waxed and waned throughout history .
- C) accelerated sharply after the introduction of markets at the end of the 18<sup>th</sup> century.
- D) has slowed since 1950.

Ans: C

Feedback: See the discussion of growth rates in the text.

43. After the Great Depression, business cycles:
- A) disappeared.
  - B) became more severe.
  - C) became less severe.
  - D) continued more or less as they had prior to the depression.

Ans: C

Feedback: Business cycles became less severe as government took a more active macroeconomic policy role.

44. In the late 1990s, Sweden's welfare reform designed to encourage work had actually made it more beneficial for many part-time job holders to quit their jobs and receive welfare payments. This welfare reform probably increased:
- A) the target rate of unemployment.
  - B) cyclical unemployment.
  - C) full employment.
  - D) frictional unemployment.

Ans: A

Feedback: Programs that reduce the suffering associated with unemployment tend to increase unemployment, and also tend to increase the target rate of unemployment (as the higher level of unemployment becomes institutionalized).

45. Use the following table to calculate the unemployment rate. Select the correct answer from the options below.

	In millions
Civilian population	270
People incapable of working	70
People not looking for work	60
Employed workers	133

- A) 3 percent.
- B) 5 percent.
- C) 7 percent.
- D) 9 percent.

Ans: B

Feedback: First find the labour force (civilian population less people incapable of

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working less people not looking for work:  $270 - 70 - 60 = 140$ ). Subtract the number of employed from the labour force to find the number unemployed ( $140 - 133 = 7$ ). Finally, divide the number of unemployed by the labour force and multiply by 100 [ $(7/140)*100 = 5\%$ .]

46. Okun's rule of thumb states that a

- A) 2 percentage point change in unemployment will cause income to change in the opposite direction by 1 percent.
- B) 2 percentage point change in unemployment will cause income to change in the same direction by 1 percent.
- C) 1 percentage point change in unemployment will cause income to change in the opposite direction by 2 percent.
- D) 1 percentage point change in unemployment will cause income to change in the same direction by 2 percent.

Ans: C

Feedback: See Okun's rule of thumb in the text.

47. If the price of housing (which accounts for 40% of total expenditures in the CPI basket), rises by 5% in one year while the prices of all other goods remain constant, by how much will the CPI rise?

- A) 2 percent
- B) 5 percent
- C) 10 percent
- D) 40 percent

Ans: A

Feedback: Multiply the share by the rise in the price ( $.4*5\% = 2\%$ ).

48. If prices have risen by 5% in one year, real output:

- A) must have risen by 5% in that same year.
- B) must have risen by less than 5% in that same year.
- C) must have risen by more than 5% in that same year.
- D) may have changed by any amount in that same year.

Ans: D

Feedback: The percent change in real output equals the percent change in nominal output less the percent change in the price level. We cannot know how much real output changed without knowing the change in nominal output too.

49. Inflation is a problem for all of the following reasons *except*:

- A) it can obscure relative price changes.
- B) it redistributes income.
- C) it can undermine faith in the monetary system, the economy, and the government if it is high enough.
- D) it makes society poorer on average.

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Ans: D

Feedback: Inflation does not make a society poorer because higher prices imply that while people pay more when they buy goods and services, they also earn more when they sell these goods and services.

50. A Classical economist is most likely to support government intervention when the economy is in:

- A) a recession.
- B) a boom.
- C) a depression.
- D) an expansion.

Ans: C

Feedback: Almost all economists believe government should intervene during a depression.