

# **MIDTERM EXAM (VERSION B)**

*Student:* \_\_\_\_\_ *ID* \_\_\_\_\_

## **READ THIS INSTRUCTIONS BEFORE YOU START YOUR EXAM**

- Please mark the version of your exam on the scantron sheet: write the version of your exam “B” under the RYERSON TRS logo. If you do not mark the version on the scantron sheet, your exam will not be marked.
- Please check your name and ID printed on the scantron sheet and please write your name and ID on the cover page of the exam booklet.
- This exam includes 60 multiple choice questions and you must complete it in 2 hours.
- Mark your answer clearly on the scantron sheet. Please double check your answers on the scantron sheet before submitting your exam. Due to the size of our class, all exams will not be returned. The exam (and the answer key) will be posted on blackboard. If you wish to view your exam, please come during our office hour. You can also email me at [apeng@economics.ryerson.ca](mailto:apeng@economics.ryerson.ca)
- Please hand in both the scantron sheet and the exam booklet at the end of the exam.
- If you wish to hand in your exam early, please rise up your hand and wait for the TAs to collect them. However, you cannot hand in your exam for the first half hour and the last fifteen minutes of the exam period.
- There are total 18 pages in this exam booklet.
- **GOOD LUCK!**

1. An economy produces only 1,000,000 computers valued at \$2,000 each. Of these, 200,000 are sold to consumers, 300,000 are sold to businesses, 300,000 are sold to the government, and 100,000 are sold abroad. No computers are imported. The unsold computers at the end of the year are held in inventory by the computer manufacturers. What is the value of GDP?

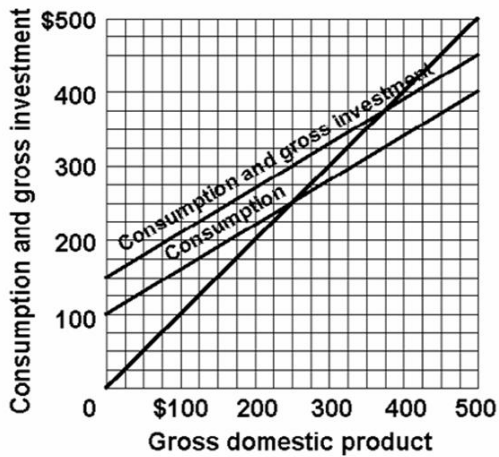
- A. \$0.9 billion.
- B. \$1.0 billion.
- C. \$1.8 billion.
- D. \$2.0 billion.
- E. \$3.8 billion.

2. If the natural rate of unemployment equals 5% and the actual rate of unemployment equals 6%, then cyclical unemployment equals

- A. - 1%.
- B. 0%.
- C. 1%.
- D. 6%.
- E. 11%.

3. The basic Keynesian model assumes that, in the \_\_\_\_\_, producers sell whatever is demanded at \_\_\_\_\_ prices.

- A. short run; preset
- B. long run; variable
- C. long run; preset
- D. medium run; preset
- E. short run; variable



4. Refer to the above diagram for a private closed economy. The equilibrium level of GDP is:

- A. \$400.
- B. \$300.
- C. \$250.
- D. \$375

5. Refer to the above diagram for a private closed economy. At the equilibrium level of GDP saving is:

- A. \$10.
- B. \$20.
- C. \$30.
- D. \$50

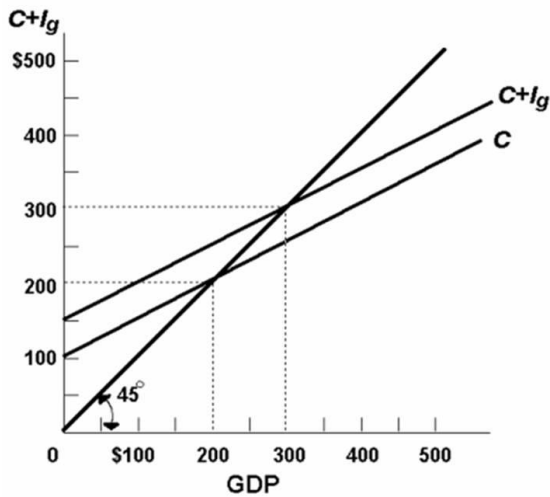
6. With an MPS of .4, the MPC will be:

- A. 1.0 minus .4.
- B. .4 minus 1.0.
- C. the reciprocal of the MPS.
- D. .4.

7. If the marginal propensity to consume is 0.9 in a private closed economy, a \$20 billion decline in investment spending will decrease:

- A. GDP by \$20 billion.
- B. GDP by \$100 billion.
- C. saving by \$20 billion.
- D. consumption by \$200 billion.

8. In an economy, nominal GDP is \$4,000 billion, the actual unemployment rate is 8%, and the natural rate of unemployment is 6%. According to Okun's law, there will be
- \$80 billion lost in potential output.
  - \$100 billion lost in potential output.
  - \$160 billion lost in potential output.
  - \$300 billion lost in potential output.
  - \$400 billion lost in potential output.
9. At the \$180 billion equilibrium level of income, saving is \$38 billion in a private closed economy. Planned investment must be:
- \$138 billion.
  - \$126 billion.
  - \$38 billion.
  - \$180 billion.
10. If a family's marginal propensity to consume (MPC) is 0.7, it is
- operating at the break-even point.
  - spending 70% of any increase to its disposable income.
  - necessarily dissaving.
  - spending 70% of its income on consumer goods.
  - saving 70% of its income.



11. Refer to the above diagram for a private closed economy. At the \$200 level of GDP:
- consumption is \$200 and planned investment is \$50 so that aggregate expenditures are \$250.
  - consumption is \$200 and planned investment is \$100 so that aggregate expenditures are \$300.
  - consumption is \$250 and actual investment is \$50 so that aggregate expenditures are \$300.
  - aggregate expenditures is equal to the GDP.

12. Refer to the information below. The gross domestic product for this economy is:

All figures are in billions.

Personal consumption expenditures	\$400
Government current purchases of goods and services	128
Gross investment	88
Net exports	20
Capital consumption allowances	43
Indirect taxes	50
Wages, salaries, and supplementary labour income	369
Accrued net income of farmers	12
Interest and miscellaneous investment income	15
Net income of non-farm unincorporated business	52
Corporate profits before taxes	36
Government transfer payments	24
Undistributed corporate profits	22
Net investment income from non-residents	-13

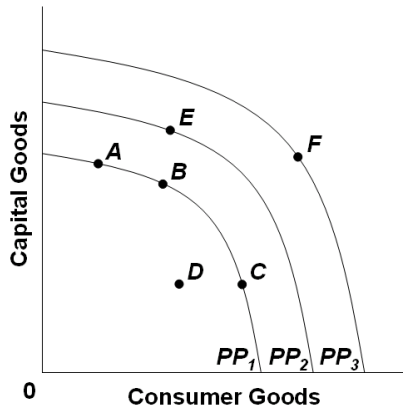
- A. \$584.
- B. \$592.
- C. \$609.
- D. \$636.

13. In Econland, population increased from 1 million to 1.1 million, the number of employed workers increased from 500,000 to 600,000, but average labour productivity decreased from \$20,000 per worker per year to \$18,000 per worker per year. Total output in Econland \_\_\_\_\_ and the average standard of living \_\_\_\_\_.

- A. decreased; decreased
- B. decreased; increased
- C. increased; remained constant
- D. increased; increased
- E. increased; decreased

14. Which one of the following will cause a movement down along an economy's consumption schedule?

- A. an increase in stock prices
- B. a decrease in stock prices
- C. an increase in consumer indebtedness
- D. a decrease in disposable income



15. Refer to the above diagram. An improvement in technology will:

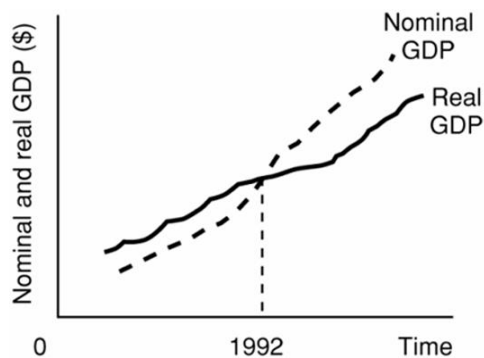
- A. shift the production possibilities curve from  $PP_1$  to  $PP_2$ .
- B. shift the production possibilities curve from  $PP_2$  to  $PP_1$ .
- C. move the economy from  $A$  to  $C$  along  $PP_1$ .
- D. move the economy from  $A$ ,  $B$ , or  $C$  on  $PP_1$  to  $D$ .

16. Which of the following is correct?

- A.  $MPC + MPS = APC + APS$
- B.  $APC + MPS = APS + MPC$
- C.  $APC + MPC = APS + MPS$
- D.  $APC - APS = MPC - MPS$

17. With no inflation, a bank would be willing to lend a business firm \$5 million at an annual interest rate of 6%. But, if the rate of inflation was anticipated to be 4%, the bank would most likely charge the firm an annual interest rate of:

- A. 2 percent.
- B. 4 percent.
- C. 6 percent.
- D. 10 percent.



18. Refer to the above diagram. Which of the following statements is correct?
- A. The price index is greater than 100 for every year shown on the graph.
  - B. Nominal GDP must be deflated in each year prior to 1992 to determine real GDP.
  - C. Real GDP has grown in this economy, but nominal GDP has not.
  - D. Nominal GDP must be deflated in each year since 1992 to determine real GDP.

19. Real GDP was \$4,719 billion in Year 1 and \$4,848 billion in Year 2. In contrast, real GDP per capita in Year 1 was \$19,261, but in Year 2 it was only \$19,162. Why did one measure increase while the other measure decreased?

- A. Real GDP indicates the level of industrial production and provides a measure of the economic strength of the nation; it is the only valid measure of economic growth.
- B. Inflation occurred during this period; therefore the two measures are not comparable.
- C. Population increased during this time period so real GDP per capita data reflect this change.
- D. Real GDP per capita measures changes in labour productivity that are not captured by a simple measure like real GDP.

Year	1	2	3	4	5	6
Price index	100	95	105	125	125	120

20. Refer to the above table. From year 1 to year 2,

- A. there is inflation.
- B. prices are stable.
- C. there is deflation.
- D. there is hyperinflation.
- E. the price index is unchanged.

21. If nominal GDP rises:

- A. real GDP may either rise or fall.
- B. we can be certain that the price level has risen.
- C. real GDP must fall.
- D. real GDP must also rise.

22. In a private closed economy (a) the marginal propensity to save is 0.25, (b) consumption equals income when consumption is \$120 billion, and (c) the level of investment is \$40 billion. What is the equilibrium level of income?

- A. \$280 billion
- B. \$320 billion
- C. \$262 billion
- D. \$198 billion

23. As disposable income decreases, the

- A. average propensity to consume increases.
- B. average propensity to consume decreases.
- C. level of consumption increases.
- D. level of investment increases.
- E. level of savings increases.

24. Suppose total expenditures for a typical household in 2002 were \$5,500 per month, while the cost of purchasing exactly the same items in 2012 was \$6,875. If 2002 is the base year, the consumer price index (CPI) for the year 2012 equals

- A. 80.
- B. 100.
- C. 120.
- D. 125.
- E. 130.

Answer the next question(s) on the basis of the following data:

<u>After-Tax Income</u>	<u>Consumption</u>
\$1,000	\$900
2,000	1,800
3,000	2,700
4,000	3,600
5,000	4,500

25. The above data indicate that:

- A. consumers spend 80 percent of their after-tax incomes.
- B. consumers spend 90 percent of their after-tax incomes.
- C. a tax reduction will reduce consumption.
- D. the relationship between consumption and after-tax income is random.

26. A key indicator of the hardship experienced during the Great Depression is the

- A. high rate of inflation.
- B. high rate of unemployment.
- C. high rate of economic growth.
- D. large budget deficits.
- E. large trade deficits.

27. In the simple circular flow model:

- A. households are demanders of factors of production.
- B. businesses are suppliers of final products.
- C. households are suppliers of final products.
- D. there are real flows of goods, services, and factors, but not money flows.

The following information is consumption and investment data for a private closed economy. Figures are in billions of dollars.

$$C = 60 + .6Y$$

$$I = I_0 = 30$$

28. Refer to the above data. In equilibrium, the level of consumption spending will be:

- A. 170.
- B. 270.
- C. 160.
- D. 195.

29. Refer to the above data. The equilibrium level of income (Y ) is:

- A. 360.
- B. 225.
- C. 200.
- D. 135.

30. Data on disposable income and consumption spending for the Adam Smith family are given below:

Disposable income	Consumption Spending
\$ 9,000	\$18,100
\$14,000	\$22,600
\$19,000	\$27,100
\$24,000	\$31,600

Based on these data, the Adam Smith family has a marginal propensity to consume of

- A. 0.9.
- B. 0.8.
- C. 0.75.
- D. 0.6.
- E. 0.5.

31. If actual GDP is less than potential GDP, then

- A. the actual unemployment rate is greater than the natural rate of unemployment.
- B. the actual unemployment rate equals zero.
- C. the output gap is negative.
- D. there is an expansionary gap.
- E. the actual unemployment rate is less than the natural rate of unemployment.

32. Bob's Barber Shop gave 3,000 haircuts in the year 2011 and 3,100 in the year 2012. The price of a haircut was \$7 in 2011 and \$8 in 2012. If the year 2011 is the base year, what was Bob's contribution to nominal GDP in the year 2012?

- A. \$21,000.
- B. \$21,700.
- C. \$24,000.
- D. \$24,800.
- E. \$25,000.

33. Assume the consumption schedule for a private closed economy is  $C = 40 + 0.75Y$ , where C is consumption and Y is gross domestic product. The multiplier for this economy:

- A. is 3.
- B. is 4.
- C. is 5.
- D. is 6.

34. The labour force equals the number of people
- A. employed.
  - B. unemployed.
  - C. aged of 15 years and older.
  - D. employed and unemployed.
  - E. employed, unemployed or counted as discouraged workers.

(The following economy produces two products.)

Production Possibilities Table

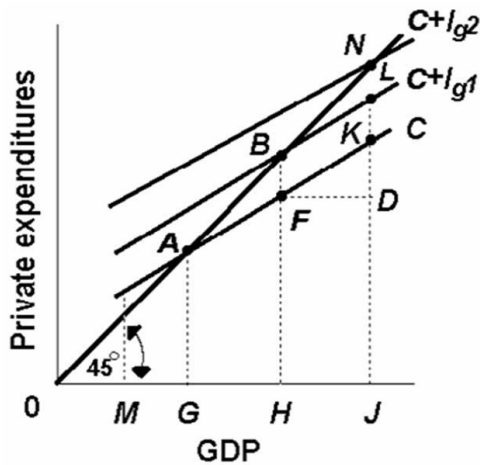
Product	A	B	C	D	E	F
Steel	0	1	2	3	4	5
Wheat	100	90	75	55	30	0

35. Refer to the above table. A change from possibility C to B means that:

- A. 1 unit of steel is given up to get 75 units of wheat.
- B. 2 units of steel are given up to get 75 units of wheat.
- C. 1 unit of steel is given up to get 15 more units of wheat.
- D. 2 units of steel are given up to get 15 more units of wheat.

36. Using the data in the table above, the rate of inflation between 2000 and 2001 was

- A. 2.25%.
- B. 2.52%.
- C. 2.45%.
- D. 2.83%.
- E. 2.91%.



37. Refer to the above diagram which applies to a private closed economy. If gross investment increases from  $I_{g1}$  to  $I_{g2}$ , the equilibrium GDP will:
- A. decrease by KD.
  - B. increase by HJ.
  - C. increase by KD.
  - D. increase by GH.

38. If the market interest rate is 8% and the inflation rate is 3%, then the real interest rate equals
- A. 3%.
  - B. 5%.
  - C. 8%.
  - D. 11%.
  - E. 24%.

39. If workers and employers agree to a three-year wage contract expecting 3% inflation and inflation turns out to be 5%, then
- A. workers gain; employers gain.
  - B. workers gain; employers lose.
  - C. workers lose; employers gain.
  - D. workers lose; employers lose.
  - E. neither workers nor employers are affected by the unexpectedly high inflation.

The production possibilities curve below shows the hypothetical relationship between the production of capital goods and consumer goods in an economy.

Products	Production Alternatives				
	A	B	C	D	E
Capital goods	0	1	2	3	4
Consumer goods	22	18	13	7	0

40. Refer to the above table. What is the opportunity cost of producing the third unit of capital goods?

- A. 4 units of consumer goods
- B. 5 units of consumer goods
- C. 6 units of consumer goods
- D. 7 units of consumer goods

<u>Disposable income</u>	<u>Saving</u>
\$0	\$-10
50	0
100	10
150	20
200	30

41. Refer to the above data. At the \$100 level of income, the average propensity to save is:

- A. .10.
- B. .20.
- C. .25.
- D. .90.

42. Data for an economy show that the unemployment rate is 6%, the participation rate is 60%, and 200 million people 15 years or older are not in the labour force. How many people are in the labour force in this economy?

- A. 80 million.
- B. 120 million.
- C. 200 million.
- D. 300 million.
- E. 500 million.

43. The economy of North Korea most closely approximates:

- A. pure capitalism
- B. a command economy
- C. market socialism
- D. authoritarian capitalism

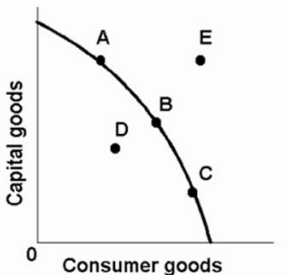
44. Which of the following is a macroeconomic statement?

- A. The gross profits of all U.S. businesses were \$182 billion last year.
- B. The price of beef declined by 3 percent last year.
- C. General Motors' profits increased last year.
- D. The productivity of steelworkers increased by 1 percent last year.

45. When actual output is less than potential output, there is a(n)

- A. budget deficit.
- B. budget surplus.
- C. trade deficit.
- D. recessionary gap.
- E. expansionary gap.

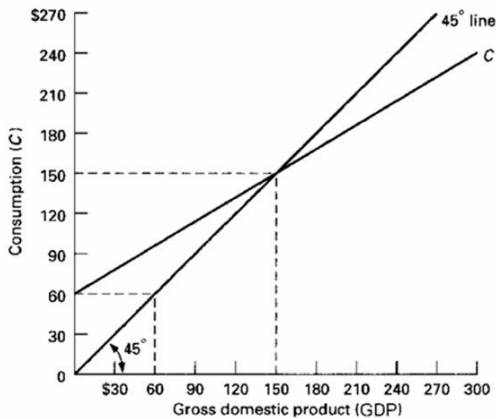
46. Refer to the diagram. This economy will experience unemployment if it produces at point:



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

47. The duration of an expansion is from

- A. peak to trough.
- B. trough to peak.
- C. peak to peak.
- D. trough to trough.
- E. peak to boom.



48. Refer to the above diagram. The break-even level of income is:

- A. zero.
- B. \$150.
- C. \$60.
- D. \$120.

49. A factory worker earned \$10 an hour in 1985, when the consumer price index (CPI) was 63.0. The same factory worker was earning \$15 an hour in 1990, when the CPI was 78.4. From 1985 to 1990, the factory worker's hourly real wage

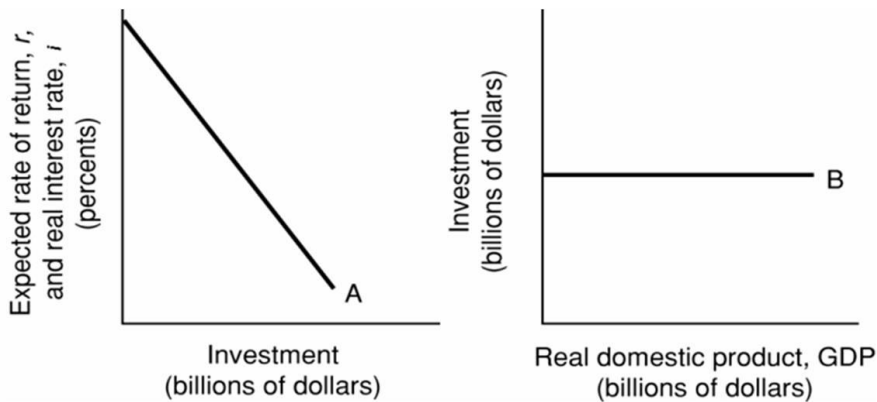
- A. increased from \$6.30 to \$11.76.
- B. increased from \$15.87 to \$19.13.
- C. remained constant.
- D. increased from \$10 to \$15.
- E. decreased from \$15 to \$10.

50. Use Rule of 72, if the economy's real GDP doubles in 18 years, we can:

- A. not say anything about the average annual rate of growth.
- B. conclude that its average annual rate of growth is about 5.5 percent.
- C. conclude that its average annual rate of growth is about 2 percent.
- D. conclude that its average annual rate of growth is about 4 percent.

51. Assume a machine which has a useful life of only one year costs \$2,000. Assume, also, that net of such operating costs as power, taxes, and so forth, the additional revenue from the output of this machine is expected to be \$2,300. The expected rate of return on this machine is:
- A. 7.5 percent.
  - B. 10 percent.
  - C. 15 percent.
  - D. 20 percent.

52. In a linear equation relating income and consumption, you know that the intercept is \$1,000 and the slope of the line is .4. If income is \$20,000, then consumption is:
- A. \$8,000.
  - B. \$9,000.
  - C. \$10,000.
  - D. \$11,000.



53. Refer to the above diagrams. Other things equal, an interest rate decrease will:
- A. shift curve A to the right and shift curve B upward.
  - B. shift curve A to the left and shift curve B downward.
  - C. leave curve A in place but shift curve B downward.
  - D. leave curve A in place but shift curve B upward.
54. A decline in the real interest rate will:
- A. increase the amount of investment spending.
  - B. shift the investment schedule downward.
  - C. shift the investment-demand curve to the right.
  - D. shift the investment-demand curve to the left.

55. In Macroland, a country that operates according to Okun's law, actual GDP is \$9.6 trillion, the actual rate of unemployment is 8%, and the natural unemployment rate is 6%. What is potential GDP in Macroland?
- A. \$9.6 trillion.
  - B. \$9.8 trillion.
  - C. \$10.0 trillion.
  - D. \$10.2 trillion.
  - E. \$10.4 trillion.

The table below indicates the price and output data over a five year period for an economy that produces only one good.

<u>Year</u>	<u>Units of output</u>	<u>Price per unit</u>
1	8	\$2
2	10	3
3	15	4
4	18	5
5	20	6

56. Refer to the above data. If year 2 is the base year, the price index for year 3 is:
- A. 120.
  - B. 125.
  - C. 133.
  - D. 150.
57. Refer to the above data. The nominal GDP for year 4:
- A. is \$90.
  - B. is \$55.
  - C. is \$40.
  - D. is \$35.

58. Refer to the above data. If year 2 is the base year, real GDP in year 5 is:
- A. \$120.
  - B. \$90.
  - C. \$60.
  - D. \$30.

59. In a country with 20 million people aged 15 years and older, 12 million in the labour force, and 11.4 million employed, what is the unemployment rate?

- A. 3%.
- B. 4%.
- C. 5%.
- D. 6%.
- E. 7%.

60. If Bountiful Orchard grows \$100,000 worth of peaches, sells \$50,000 worth of peaches to consumers, and uses the rest to make jam that is sold to consumers for \$100,000, Bountiful Orchard's contribution to GDP is

- A. \$50,000.
- B. \$100,000.
- C. \$150,000.
- D. \$200,000.
- E. \$250,000.