

## Sample Midterm#2

### Part I – Multiple Choice Questions

**Note:** Choose *the* one that you think best answers the question. No explanations are needed.

1. What is the future value of \$750 one year from today if the annual interest rate is 3 percent?
  - a. 772.73
  - b. 772.50
  - c. 773.33
  - d. None of the above are correct to the nearest penny.
  
2. Alice says that the present value of \$700 one year from today if the annual interest rate is 6 percent is less than the present value of \$700 two years from today if the annual interest rate is 3 percent. Beth says that \$700 saved for one year at 6 percent annual interest has a smaller future value than \$700 saved for two years at 3 percent annual interest.
  - a. Both Alice and Beth are correct.
  - b. Both Alice and Beth are incorrect.
  - c. Only Alice is correct.
  - d. Only Beth is correct.
  
3. A scholarship gives you \$1,000 today and promises to pay you \$1,000 one year from today. What is the present value of these payments?
  - a.  $\$2,000/(1 + r)^2$ .
  - b.  $\$1,000 + \$1,000/(1 + r)$
  - c.  $\$1,000/(1 + r) + \$1,000/(1 + r)^2$
  - d.  $\$1,000(1 + r) + \$1,000(1 + r)^2$
  
4. Sally buys health insurance because she knows that she has health risks that wouldn't be obvious to an insurance company. Edward buys home owners insurance and then is less careful to make sure he's put out his cigarettes. The example with Sally and the example with Edward illustrate adverse selection.
  - a. and the example with Edward illustrate adverse selection.
  - b. and the example with Sally illustrate moral hazard.
  - c. best illustrates adverse selection, the example with Edward best illustrates moral hazard.
  - d. best illustrates moral hazard, the example with Edward best illustrates adverse selection.
  
5. If stock prices follow a random walk, it means
  - a. long periods of declining prices are followed by long periods of rising prices.
  - b. the greater the number of consecutive days of price declines, the greater the probability prices will increase the following day.

- c. stock prices are unrelated to random events that shock the economy.
  - d. stock prices are just as likely to rise as to fall at any given time.
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- 6. The natural unemployment rate includes
    - a. both frictional and structural unemployment.
    - b. neither frictional nor structural unemployment.
    - c. structural, but not frictional unemployment.
    - d. frictional, but not structural unemployment.
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- 7. In 2004, based on concepts similar to those used to estimate U.S. employment figures, the Japanese adult non-institutionalized population was 109.684 million, the labor force was 65.760 million, and the number of people employed was 62.630 million. According to these numbers, the Japanese labor-force participation rate and unemployment rate were about
    - a. 60%, 2.9%
    - b. 60%, 4.8%
    - c. 57.1%, 2.9%
    - d. 57.1%, 4.8%
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- 8. Sectoral shifts in demand for output
    - a. create structural unemployment.
    - b. immediately reduce unemployment.
    - c. increase unemployment due to job search.
    - d. on net leave unemployment unchanged.
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- 9. An increase in the minimum wage would
    - a. increase both the quantity demanded and the quantity supplied of labor.
    - b. decrease both the quantity demanded and the quantity supplied of labor.
    - c. increase the quantity of labor demanded while decreasing the quantity supplied.
    - d. decrease the quantity of labor demanded while increasing the quantity supplied.
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- 10. There will be structural unemployment if
    - a. some wages are kept above their equilibrium level.
    - b. some people choose not to work at the equilibrium wage.
    - c. some wages are below their equilibrium level.
    - d. There can be structural unemployment under all the possibilities above.

11. Suppose that in the economy in general efficiency wages become more common. Economists would predict that this would
- increase the quantity demanded and decrease the quantity supplied of labor thereby decreasing the natural rate of unemployment.
  - decrease the quantity demanded and increase the quantity supplied of labor thereby increasing the natural rate of unemployment.
  - increase the quantity demanded and decrease the quantity supplied of labor thereby increasing the natural rate of unemployment.
  - decrease the quantity demanded and increase the quantity supplied of labor thereby decreasing the natural rate of unemployment.

## Part II – Calculations and Explanations

**Note:** calculate your answers and provide your explanations concisely. Write down the formulas you are trying to use whenever necessary.

14. Suppose that in a closed economy GDP is equal to 11,000, taxes are equal to 2,500 Consumption equals 7,500 and Government purchases equal 2,000. What are private saving, public saving, and national saving? Is there a budget surplus or deficit?

15. This table shows the 2003 data for males and females ages 16 and over in the imaginary country of Meditor.

- Not in labor force
  - male: 45 million
  - female: 35 million
- Unemployed
  - male: 5 million
  - female: 5 million
- Employed
  - male: 85 million
  - female: 65 million

(a) What is the total adult population and the total adult labor force in Meditor?

(b) What is the adult unemployment rate and adult labor-force participation rate in Meditor?

16. You have been saving up to buy the Godot Company. The total cost will be \$10 million. You currently have about \$2.3 million.

(a) If you can earn 5% on your money how long will you have to wait?

(b) How long will you have to wait at 16%?

17. The table below uses data for the year 2003 provided by the BLS and adjusted to be comparable to U.S. data. All values are in thousands. Fill in the blank entries in the table. Show your work!

Country	Adult Population	Labor Force	Employed	Unemployed	Unemployment Rate	Labor-Force Participation Rate
Japan	109,474		62,510	3,500		
France		26,870		2,577		57.41
Germany	70,159	39,591			9.69	

### Part III – Essay Questions

**Note:** Provide your answers and explain them as clearly as possible. A clear logic in your analysis will be highly appreciated. Try to write down the theoretical framework and start your analysis even if you are not sure about the answer. Diagrams are always helpful.

18. Give two conditions that are important to the efficient market theory. List one implication of the efficient market theory.

19. Teenage unemployment is higher than unemployment of people ages 20 and over. Explain why economists would attribute at least part of this difference to minimum-wage laws. (Hint: who is likely to get paid more?)

20. What is the theory of efficiency wages? Provide four reasons that employers might pay efficiency wages.