

# Test Review

Econ 322 Test Review  
Test 1  
Chapters 1,2,8,3,4,7



## Question 1

- True or False?
  - All of the following variables have trended upwards over the last 40 years:
    - Real GDP
    - The price level
    - The rate of inflation
    - The trade surplus (net exports)



## Answer 1

- False
  - Real GDP (Yes)
  - The price level (Yes)
  - The rate of inflation (No)
  - The trade surplus (net exports) (No)



## Question 2

- True or False
  - Classical economists believe that the economy adjusts rapidly to reach an equilibrium with full employment, but Keynesians believe that slow adjustment of prices and wages may lead to prolonged periods of persistent unemployment.



## Answer 2

- True



## Question 3

- True or False
  - The following equation correctly describes the relationship between real GDP, nominal GDP, and the GDP deflator:

$$GDP\ Deflator = \frac{Nominal\ GDP}{Real\ GDP} \times 100$$



### Answer 3

- True
  - This is true by definition

### Question 4

- True or False?
  - In 1980, the GDP deflator takes a value of 25
  - Nominal GDP in 1980 is \$4 trillion
  - The base year is 2002
  - The real value of 1980 GDP is \$16 trillion

### Answer 4

- True

$$GDP\ Deflator_{1980} = \frac{Nominal\ GDP_{1980}}{Real\ GDP_{1980}} \times 100$$
$$25 = \frac{4}{Real\ GDP_{1980}} \times 100$$

### Question 5

- True or False?
  - In 1957, the GDP Deflator took a value of 20
  - In 2007, the GDP Deflator took a value of 120
  - In 1957, a bottle of Coke cost \$.10
  - The current (2007) value of \$.10 in 1957 dollars is \$1.20

### Answer 5

- False
  - The GDP Deflator is a price index; as such it measures the average level of prices over time
  - Because the price index increased by a factor of 6 (rising from 20 to 120), this means that price rose on average by a factor of 6, or that the value of a dollar is only 1/6 of its original value
  - So, on average, it takes \$.60 in 2007 to purchase something that would have cost \$.10 in 1957
    - Of course, not all goods prices change together; some prices rise or fall more than others.

### Answer 5 (More Complicated)

- False

$$Real\ Value = \frac{Nominal\ Value_{1957}}{GDP\ Deflator_{1957}} \times 100$$

$$Real\ Value = \frac{0.10}{20} \times 100 = 0.50$$

$$Real\ Value = \frac{Nominal\ Value_{2007}}{GDP\ Deflator_{2007}} \times 100$$

$$0.50 = \frac{Nominal\ Value_{2007}}{120} \times 100 \quad Nominal\ Value_{2007} = \$0.60$$

## Question 6

- True or False
  - In principle, real GDP measures both the real output produced by an economy and the real income earned by individuals in that economy.

## Answer 6

- True
  - When firms produce and sell output, revenue (the value of output) comes into the firm sector to pay for the goods.
  - That revenue must flow out as income to someone (at least according to GDP accountants), so income and output are measuring the same thing.

## Question 7

- True or False?
  - Consider a closed economy, such that net exports and net factor payments from abroad are equal to zero. Then:

$$S = Y - C - G$$

and

$$S = I$$

## Answer 7

- True
  - For a closed economy, saving is just the difference between output produced ( $Y$ ) and the amounts consumed by the private sector ( $C$ ) and the government ( $G$ ).
  - Further, output can be divided into three components,  $C$ ,  $I$ , and  $G$ .
  - The two conditions below lead to the result that  $S=I$

$$S = Y - C - G$$

$$Y = C + I + G$$

## Question 8

- True or False
  - Inflation can be measured as the level of the GDP deflator or the level of the consumer price index.

## Answer 8

- False
  - Inflation is a rate of change (normally an annualized percentage rate of change) in the level of prices.

### Question 9



- True or False?
  - All of the following statements about business cycles are true:
    - Cycles have phases of expansion and contraction
    - Cycles occur across multiple sectors/industries at the same time
    - Cycles are recurrent, but not regular
    - Cycles are persistent

### Answer 9



- True

### Question 10



- True or False
  - Consider a graph of the production function plotting output (vertical axis) and against the labor input (horizontal axis). The slope of a ray from the origin to a point on the curve measures the marginal product of labor at that point on the curve.

### Answer 10



- False
  - The marginal product is measured by the slope of the curve at a point (i.e., the slope of a tangent line to the curve at that point)

### Question 11



- True or False?
  - An adverse supply shock (a reduction in the  $A$  parameter) will cause the marginal product of labor to fall

### Answer 11



- True
  - Yes, the curve shifts downward and the slope is lower at any value of  $N$

### Question 12



- True or False?
  - A firm has chosen a quantity of labor such that the marginal product of labor,  $MPN$ , exceeds the nominal wage rate,  $W$ . To maximize profit, the firm should increase the number of workers it employs.

### Answer 12



- False
  - The condition was stated incorrectly. The statement would be true if it had said "A firm has chosen a quantity of labor such that the marginal product of labor,  $MPN$ , exceeds the real wage rate,  $w \dots$ "

### Question 13



- True or False?
  - The substitution effect of a real wage increase causes an individual to work more

### Answer 13



- True
  - The increase in the real wage causes leisure to become more expensive relative to the consumption of goods, leading an individual to consume less leisure (work more)

### Question 14



- True or False?
  - When the labor market is in equilibrium (quantity demanded equals quantity supplied), then the amount of labor employed is called the full employment quantity of labor.

### Answer 14



- True

### Question 15

- True or False?
  - The following equation correctly defines the expected real rate of interest:

$$r = i + \pi^e$$

### Answer 15

- False
  - The correct definition is:

$$r = i - \pi^e$$

### Question 16

- A machine costs \$50,000, the real interest rate is 8%, the machine depreciates at a rate of 20% per year, and the machine can produce 100,000 units of output, each valued at \$1, in a year. The user cost of this machine for this year is \$28,000 per year.

### Answer 16

- False
  - The user cost is  $(0.08 + 0.20) \times \$50,000 = \$14,000$

### Question 17

- True or False?
  - Suppose that firms' desire a capital stock for next period that exceeds the current level of the capital stock. Then investment spending this period will be negative.

### Answer 17

- False
  - When the capital stock desired for next period exceeds the current capital stock, then firms will invest to bring the actual capital stock up to the level of the desired capital stock.

### Question 18



- True or False?
  - Investment is a stock variable and the capital stock is a flow variable.

### Answer 18



- False.
  - The reverse is true. Investment is a flow variable and the capital stock is a stock variable.

### Question 19



- True or False?
  - Desired investment is inversely related to the expected real rate of interest and inversely related to the expected future marginal product of capital.

### Answer 19



- False
  - Desired investment is positively related to the expected future marginal product of capital

### Question 20



- True or False
  - When the real rate of interest rises, then the substitution effect of the interest rate change causes saving to rise.

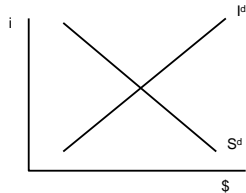
### Answer 20



- True
  - A higher real interest rate makes consumption today more expensive relative to consumption tomorrow, inducing consumers to choose to consume more tomorrow (save today).

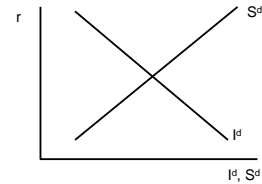
### Question 21

- True or False
  - All curves and axes in the Saving-Investment diagram are correctly labeled:



### Answer 21

- False

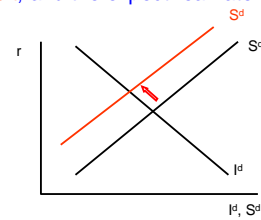


### Question 22

- True or False?
  - Suppose that government spending is temporarily increased. As a result, saving will rise, the saving curve will shift to the right, and the expected real rate of interest will rise

### Answer 22

- False
  - National saving will **fall**, the saving curve will shift to the **left**, and the expected real rate of interest will rise.



### Question 23

- True or False?
  - I would like to be holding \$1 billion at this moment. This means that my demand for money is equal to \$1 billion.

### Answer 23

- False
  - My money demand tells how much of my (given) wealth I would like to hold in the form of money; i.e., cash and demand deposits.
  - I don't have \$1 billion in wealth, and if I did, I would not hold much of it in the form of money.

### Question 24

- True or False?
  - The opportunity cost of holding money is equal to the real rate of interest.

### Answer 24

- False
  - The opportunity cost of holding money is equal to the difference in the nominal interest rates paid on money and non-money assets (bonds).
  - We assume that the interest rate paid on money is close to zero and does not vary, so the opportunity cost of holding money varies with the nominal interest rate paid on bonds,  $i$ .

### Question 25

- True or False
  - The money demand function is:

$$\frac{M^d}{P} = L(Y, r + \pi^e)$$

- For this form of the money demand function, velocity must be a constant

### Answer 25

- False
  - In the given equation, velocity would vary with the rate of interest
  - Below is a money demand function in which velocity would be constant:

$$\frac{M^d}{P} = kY$$

### Question 26

- True or False?
  - If the central bank buys bonds, then the money supply falls

### Answer 26

- False
  - When the central bank buys bonds, a member of the public receives money in exchange for the bond, so money held by the non-bank public has increased

**The End**

