# **Problem 1.** The supply of labor is the same thing as

- (a) the total number of jobs available in the economy
- **(b)** the labor force
- (c) the number of vacant jobs in the economy
- (d) the nubmer of jobs firms offer to households
- (e) none of the above

#### **Problem 2.** At the macroeconomic level, demand for labor is

- (a) the total number of filled and unfilled jobs available
- **(b)** the total number of unfilled jobs available
- (c) the total number of people who have jobs
- (d) the total number of people who demand jobs from business firms
- (e) none of the above

**Problem 3.** In the labor market, the **substitution effect** refers to the notion that when the real wage increases,

- (a) the opportunity cost of labor increases and, therefore, workers work less
- **(b)** the opportunity cost of leisure increases and, therefore, workers work more
- (c) workers feel they are richer and, therefore, they consume more and save less
- (d) workers feel they are richer and, therefore, they save more and consume less
- **(e)** none of the above

### **Problem 4.** In the labor market, the **income effect** indicates that

- (a) when real wage increases, workers' income increases and therefore they save more
- **(b)** when real wage increases, workers need to work fewer hours to earn the same income as before
- (c) when real wage increases, workers need to work fewer hours to earn the same income as before, so they work less
- (d) when real wage increases, workers' income increases, and therefore they increase their demand for goods and services
- (e) none of the above

### **Problem 5.** Which of the following is correct?

- (a) supply of labor = labor force participation rate  $\times$  labor force
- **(b)** supply of labor = labor force participation rate  $\times$  employment
- (c) supply of labor = labor force participation rate  $\times$  (employed + unemployed)
- (d) supply of labor = labor force participation rate  $\times$  population
- (e) none of the above

# **Problem 6.** Consider the following data:

Employed: 95,000

Unemployed: 5,000

Discouraged: 18,750

Civilian Population: 125,000

Find the official unemployment rate and the "true" unemployment rate that includes discouraged workers.

**Problem 7.** Consider the table below. Suppose that the price level is P = \$30. What is the nominal wage?

Real Wage	Labor Demand	Labor Supply
6	700	300
8	600	400
10	500	500
12	400	600
14	300	700

**Problem 8.** If the nominal wage rate is W = 5,000 per worker and the price of the output is P = 100 per unit, the firm will want to employ \_\_\_\_\_ workers (using the marginal productivity rule discussed in the class). With this many workers, it will be able to produce \_\_\_\_\_ tons of output.

Total Number of Workers Hired (Persons)	Total Amount of Output Produced (Tons)
0	0
1	80
2	150
3	210
4	260
5	300
6	330
7	350
8	360

**Problem 9.** Which of the following events could cause the demand for labor function to shift to the right?

- (a) an increase in the amount of complementary capital
- **(b)** an increase in the productivity of labor
- (c) a labor-using technological progress
- (d) all of the above
- (e) none of the above

**Problem 10.** Which of the following events could cause the supply of labor to shift to the right, all else equal?

- (a) an increase in net immigration
- **(b)** an increase in net birth
- (c) an increase in the labor force participation rate
- (d) all of the above
- (e) none of the above