MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

1) A single union firm in a competitive industry otherwise comprised of nonunion firms
   A) will make economic losses if it pays a wage rate above its competitors.
   B) will pay a higher union wage advantage than unionized firms in less competitive industries.
   C) will make economic profits if it pays a wage rate equal to its rival firms.
   D) will produce more output than its rival firms.

2) A union wage advantage is less likely to occur where
   A) the "spillover effect" outweighs the "threat effect."
   B) product markets are characterized by substantial monopoly power.
   C) only a few firms within a competitive industry are unionized.
   D) there is a distinct "shock effect."

3) Union workers receive more compensation than otherwise similar nonunion workers. This fact
   A) is proof that unions raise the wages of their members relative to nonunion workers.
   B) could be explained by the fact that women workers are a larger proportion of weakly unionized industries.
   C) could be explained by the fact that unionized industries are less capital intensive.
   D) could be explained by the fact that unionized firms are typically smaller.

4) If $W_u$ is the union wage and $W_n$ is the nonunion wage, the pure union wage advantage is
   A) $\frac{W_n - W_u}{W_u} \times 100$.
   B) $\frac{W_n}{W_u} \times 100$.
   C) $\frac{W_u - W_n}{W_n} \times 100$.
   D) $W_n - W_u$.

5) If union workers in a given occupation are paid $20 per hour while nonunion workers receive $16 per hour, the measured union wage advantage is
   A) 20%.
   B) 25%.
   C) 80%.
   D) More information is required.

6) If nonunion workers in a given occupation are paid $16 per hour while union workers receive $20 per hour, the pure union wage advantage is
   A) 20%.
   B) 25%.
   C) 80%.
   D) More information is required.
7) The nonunion wage rate may fall as the result of a union wage increase because of the
A) product-market effect.
B) spillover effect.
C) threat effect.
D) compensating wage differential effect.

8) The nonunion wage rate may rise as the result of a union wage increase because of the
A) spillover effect.
B) superior-worker effect.
C) threat effect.
D) compensating wage differential effect.

9) The measured union wage advantage will *understate* the pure advantage because of the
A) spillover effect.
B) superior-worker effect.
C) product-market effect.
D) compensating wage differential effect.

10) Suppose the union wage rate rises. The "spillover effect" suggests that the nonunion wage rate should ________ the "threat effect" suggests that the nonunion wage rate should ________.
A) fall; fall
B) rise; fall
C) fall; rise
D) rise; rise

11) "The union wage advantage is understated because nonunion wages rise as consumer demand shifts away from relatively higher priced union produced goods." This describes the
A) product-market effect.
B) spillover effect.
C) superior-worker effect.
D) threat effect.
12) Refer to the following diagram. Wages in both the union and nonunion sectors are initially $10. The union then negotiates a wage rate of $12. The post-negotiation nonunion wage is not yet known.

The pure union wage advantage in this market is
A) 20%.
B) 25%.
C) $2.
D) More information is needed.

13) Refer to the following diagram. Wages in both the union and nonunion sectors are initially $10. The union then negotiates a wage rate of $12. The post-negotiation nonunion wage is not yet known.

The measured union wage advantage in this market is
A) 20%.
B) 25%.
C) $2.
D) More information is needed.
Refer to the following diagram. Wages in both the union and nonunion sectors are initially $10. The union then negotiates a wage rate of $12. The post-negotiation nonunion wage is not yet known.

The product-market effect would be modeled by shifting the
A) nonunion supply curve to the right, increasing the measured union wage advantage.
B) nonunion demand curve to the right, reducing the measured union wage advantage.
C) union demand curve to the right, increasing the measured union wage advantage.
D) union supply curve to the right, reducing the pure union wage advantage.
Refer to the following diagram. Wages in both the union and nonunion sectors are initially $10. The union then negotiates a wage rate of $12. The post-negotiation nonunion wage is not yet known.

The threat effect would be modeled by
A) shifting the nonunion supply curve to the right, increasing the measured union wage advantage.
B) shifting the nonunion demand curve to the right, reducing the measured union wage advantage.
C) shifting the union demand curve to the right, increasing the measured union wage advantage.
D) raising the nonunion wage above its equilibrium level, decreasing the measured union wage advantage.
16) Refer to the following diagram. Wages in both the union and nonunion sectors are initially $10. The union then negotiates a wage rate of $12. The post-negotiation nonunion wage is not yet known.

The spillover effect would be modeled by

A) shifting the nonunion supply curve to the right, increasing the measured union wage advantage.
B) shifting the nonunion demand curve to the right, reducing the measured union wage advantage.
C) shifting the union demand curve to the right, increasing the measured union wage advantage.
D) raising the nonunion wage above its equilibrium level, reducing the true union wage advantage.

17) It is difficult to measure the pure union wage advantage because

A) women constitute a greater proportion of the workforce in strongly unionized industries than in weakly unionized industries.
B) unionized industries tend to have larger plants that may require greater worker supervision, thus promoting union employers to seek out "superior" workers.
C) unionized industries tend to employ production methods that are highly labor-intensive and therefore require lower-paid unskilled workers.
D) unions are more easily established in those industries that pay low wages, so that the percentage wage gains are much smaller.
18) The measured union wage advantage may **overstate** the pure union wage advantage because

A) workers who lose their jobs in the union sector may seek and obtain jobs in the nonunion sector, reducing wage rates in the latter.
B) nonunion employers may increase the wages they pay their workers to reduce the likelihood their firms will become unionized.
C) workers who lose their jobs in the union sector may prefer to remain in the union sector, hoping to be recalled rather than accepting lower-paying nonunion wages.
D) unionized plants tend to be less efficient, resulting in lower marginal products of union workers.

19) Hirsch and Macpherson estimate the overall union wage advantage to be approximately

A) 4%.
B) 9%.
C) 15%.
D) 28%.

20) Empirical research suggests that the union wage advantage in the public sector, compared to the private sector, is approximately

A) 5 percentage points lower.
B) 5 percentage points higher.
C) 10 percentage points lower.
D) the same.

21) The union wage advantage

A) peaked in the mid-1970s.
B) has fallen consistently since 1965.
C) peaked in the mid-1990s.
D) has risen consistently since 1965.

22) Which one of the following is a **true** statement?

A) The union wage advantage is smaller if fringe benefits are included.
B) The union wage advantage is greater if fringe benefits are included.
C) Inclusion of fringe benefits has no measurable impact on the union wage advantage.
D) Because fringe benefit levels are prescribed by law, the impact of these benefits on the union wage advantage is negligible.

23) The union wage advantage tends to

A) decrease during recessions.
B) be smaller among lower-educated workers.
C) be smaller among African Americans.
D) be larger among craft unions.

24) Which one of the following is a true statement?

A) The union wage advantage narrows during recessions.
B) There is no union wage advantage for African American males.
C) Unions achieve bigger wage gains for clerical workers than workers in crafts.
D) The union wage advantage is bigger for workers with less education than for workers with more education.
25) Which one of the following does not help to explain why union workers receive more fringe benefits than nonunion workers?
   A) The unionized firm is willing to pay both higher wages and fringe benefits to avoid the costs of a strike.
   B) The higher incomes of union workers allow them to "purchase" more fringe benefits.
   C) Unions are primarily composed of younger workers who have more to gain from long-term compensation such as the kind provided by union pension plans.
   D) As collective voice institutions, unions may better formulate fringe benefit proposals, inform their membership of their worth, and communicate these desires to the firm.

26) Unions may reduce economic efficiency by
   A) providing an "exit" mechanism.
   B) insisting promotions be based on ability rather than seniority.
   C) imposing restrictive work rules.
   D) reducing worker turnover.

27) Unions may increase economic efficiency by
   A) providing an "exit" mechanism.
   B) insisting promotions be based on ability rather than seniority.
   C) imposing restrictive work rules.
   D) reducing worker turnover.

28) Unions may increase productivity by
   A) providing a "voice mechanism."
   B) providing an "exit mechanism."
   C) reducing the capital/labor ratio.
   D) increasing worker turnover, particularly among younger workers, so that only the best employees survive.

29) By reducing labor turnover, unions may increase productivity because a lower turnover rate
   A) results in a less-experienced workforce.
   B) increases the incentive for firms to provide specific training to their workers.
   C) allows firms to employ a greater number of younger, more energetic workers.
   D) increases the incentive for firms to substitute labor for capital in the production process.
30) Which one of the following observations supports the argument that unions increase productivity?
   A) Turnover in union firms is lower than in nonunion firms.
   B) Unions alter the allocation of labor between union and nonunion firms.
   C) Training at union firms is lower than at nonunion firms.
   D) Unions provide an "exit" option, whereas nonunion workers only have a "voice" option.

31) As a percentage of total work-time, the average amount of work-time lost because of strikes annually is typically
   A) less than 1%.
   B) 4%–5%.
   C) 9%–10%.
   D) greater than 15%.

32) Compared to other industrial countries, such as Canada, France, Italy, and the United Kingdom, the incidence of strikes in the United States is
   A) approximately the same
   B) slightly higher.
   C) significantly lower.
   D) significantly higher.

33) Work-time lost as a result of a strike
   A) is generally less costly in service industries than in durable-goods industries.
   B) is estimated to be more costly than the efficiency losses resulting from union-caused labor misallocation.
   C) may overstate the cost of a strike if struck employers are able to expand their inventories in anticipation of the strike.
   D) may understate the cost of a strike if the work stoppage disrupts production in associated industries.

34) The adverse effects of a strike on other associated industries and consumers are likely to be
   A) greater when it involves products rather than services.
   B) greater when it involves small firms rather than large firms.
   C) on the order of 5% of GDP each year.
   D) substantially less than the adverse effects of lockouts by management.

35) The allocative efficiency loss associated with unions arises because
   A) job losers in the union sector take away jobs from more productive workers in the nonunion sector.
   B) the value of lost output in the union sector is greater than the value of any additional output in the nonunion sector.
   C) the union wage rises above the value of marginal product while the nonunion wage falls below it.
   D) job losers in the union sector are unqualified to work in the nonunion sector, so society loses their potential output.
36) Refer to the following graph, in which all product markets are assumed to be competitive.

Assume the two labor demand curves are identical and that all union workers who lose their jobs as a result of the union wage increase from \( W_n \) to \( W_u \) find jobs in the nonunion sector. The area corresponding to the efficiency loss is

A) \( c'abd' \).  
B) \( W_nW_uac' \).  
C) \( eabf \).  
D) \( gcdh \).

37) Refer to the following graph, in which all product markets are assumed to be competitive.

If all displaced union workers opt to remain in the union sector hoping to be recalled, the area corresponding to the efficiency loss of the union wage increase is

A) \( c'abd' \).  
B) \( W_nW_u a c' \).  
C) \( eabf \).  
D) \( gcdh \).
38) Refer to the following graph, in which all product markets are assumed to be competitive.

![Graph showing allocative efficiency loss in competitive markets]

The allocative efficiency loss implied by the diagram is a static, short-run loss. Compared to static loss, the dynamic, long-run loss is probably

A) greater, because unions reduce firm profitability and thereby inhibit investment.
B) greater, because unemployment is greater in the long run.
C) greater, as firms have a greater opportunity to exercise their monopsony power.
D) smaller, because the decline in nonunion wages increases the extent of poverty.

39) Evidence suggests that unions reduce firm profitability and discourage investment, so that

A) the dynamic efficiency loss from unionization is smaller than the static efficiency loss.
B) the dynamic efficiency loss from unionization is greater than the static efficiency loss.
C) turnover in union firms is greater because workers become bored with old technology.
D) turnover in nonunion firms is greater because workers cannot keep up with new technology.

40) In industry A, all displaced workers remain in the union sector waiting to be recalled. In industry B, all displaced workers seek work in the nonunion sector. All else constant, the

A) allocative efficiency loss is greater in industry A.
B) allocative efficiency loss is greater in industry B.
C) allocative efficiency loss is the same in industry A and industry B.
D) dynamic efficiency loss is greater in industry A.
41) All of the following suggest that unions may improve productivity and efficiency except:  
A) unions provide workers a voice with which to communicate to management.  
B) union wage pressure may force management to adopt more efficient techniques to maintain profitability.  
C) union workers protected by seniority rules are more likely to pass on knowledge to new workers.  
D) unionization increases turnover rates, bringing in new workers with fresh ideas.

42) Regarding unions and productivity, empirical results show that  
A) the impact of unionization on productivity is not clear cut.  
B) unionization reduces productivity generally.  
C) unionization improves productivity generally.  
D) unionization improves productivity most in industries where union and management are most adversarial.

43) Which of the following statements is supported by empirical evidence?  
A) Lower productivity growth for unionized firms is primarily due to these firms being in industries with slow productivity growth.  
B) The negative impact of unions on productivity is greatest in industries that are most competitive.  
C) The positive impact of unions on productivity is greatest in industries where the union wage advantage is smallest.  
D) Unions indirectly improve productivity growth by increasing the rate of investment in physical capital.

44) Empirical estimates generally show that unions reduce  
A) both firm profitability and economic efficiency.  
B) firm profitability but improve economic efficiency.  
C) firm profitability, but there is no consensus regarding their effects on economic efficiency.  
D) economic efficiency, but there is no consensus regarding their effects on firm profitability.

45) Evidence indicates that, on balance, union wage policies tend to  
A) lead to greater overall inequality in the distribution of earnings.  
B) assign wages to individual workers, whereas nonunion firms tend to assign wages to jobs.  
C) decrease the wage gap between unskilled and skilled workers by seeking equal absolute wage increases for all workers rather than equal relative wage increases.  
D) raise wage rates at only the largest firms in an industry, thereby increasing wage dispersion within the industry.
46) There is a general consensus among economists that
   A) unions reduce unemployment.
   B) unions increase unemployment.
   C) unions have increased labor's share of national income.
   D) union wage determination is not a serious cause of inflation in the United States.

47) Overall, unions have generally
   A) increased labor's share by increasing the productivity of labor.
   B) reduced labor's share by reducing the wages of nonunion labor.
   C) reduced labor's share by raising prices to consumers.
   D) had a negligible effect on labor's share.

48) Which of the following best describes the events following the deregulation of the trucking and airline industries by 1980?
   A) Wages in both industries fell, although the decline was much more rapid in the trucking industry.
   B) Wages in both industries fell, although the decline was much more rapid in the airline industry.
   C) The unionization rate in the trucking industry rose, although it fell in the airline industry.
   D) Employment fell in both industries, while wages increased.

49) In their study of the Bridgestone/Firestone tire recalls, Krueger and Mas find that
   A) decreases in product quality at the Illinois plant were caused by management replacing workers with low-quality robots.
   B) tire defects were highest in factories where unionization rates were lowest.
   C) labor strife at the Illinois plant resulted in lower product quality.
   D) there were no differences in product defects at the struck Illinois plant and others where there was no labor strife.

50) Fallick and Hassett suggest that the tendency of union firms to merge with union firms can be explained by their finding that
   A) union certification elections increase firms' research and development spending.
   B) union firms are subject to a lower rate of corporate taxation.
   C) union firms pay a smaller proportion of compensation in the form of fringe benefits.
   D) union certification elections reduce firms' rates of investment in physical capital.