1. If prices don’t all change at the same rate, the consumer price index that calculates what it takes to maintain the same consumption pattern:
   a. understates inflation
   b. exactly measures inflation
   C. overstates inflation.
   D. May over or understate inflation depending upon circumstances.

2. The explanation of the “diamond-water paradox” is based partly upon the idea
   a. the total spending on diamonds is higher than for water
   b. that the ratio of consumer surplus to total spending is higher for diamonds.
   C. that the ratio of consumer surplus to total spending is lower for diamonds.
   D. diamonds are harder than water.

3. A Giffen good:
   a. is an inferior good
   B. is a good with a positively sloping indifference curve
   C. both a and b are true.
   D. none of the above are true.

4. With a Giffen good:
   a. the income effect of a price change works in the same direction as the substitution effect.
   B. the income effect is relatively large in absolute size compared to the substitution effect.
   C. the good has a zero income elasticity.
   D. None of the above are true.

5. The income effect of a price change is:
   a. works towards producing a downward sloping demand curve when the good is normal.
   B. associated with a movement along indifference curves.
   C. both a and b are true.
   D. none of the above are true.

6. The substitution effect of a price change:
   a. always works towards producing a negatively sloping demand curve.
   B. is larger the less sharply curved (closer to straight lines) are the indifference curves.
   C. is associated with movement along an indifference curve.
   D. all of the above are true.
7. If short run marginal cost is $9 and short run average total cost is $7, then
   a. average total cost is rising.
   B. average variable cost is rising.
   C. Both a and b are true.
   D. None of the above are true.

8. It is true that:
   a. average total cost minus average variable cost equals average fixed cost.
   B. Average variable cost equals wage divided by the marginal product of labor.
   C. Marginal cost equals the wage divided by the average product of labor.
   D. All of the above are true.

9. The private opportunity cost of going to a residential college would include all of the following items except:
   a. tuition payments
   B. board (food costs).
   C. the cost of books
   D. the opportunity cost of time (net wages not earned because of time spent on school.)

10. A firm is employing one-hundred units of labor and fifty units of capital to produce 200 tires.
    Labor costs $12 per unit and capital $8 per unit. For the quantities of inputs employed, MP_L = 6
    and MP_K = 2. In this situation, the firm:
    a. is producing the maximum output possible for a given level of cost
    b. could increase its output at no extra cost by using more capital and less labor.
    c. could increase its output at no extra cost by using more labor and less capital.
    d. should use less of both inputs in equal proportions.

11. If the price of socks went from $5 to $3 and the quantity demanded went from 8 to 10, the increase in consumer surplus would be:
    a. less than $5.
    B. more than $5 but less than $10
    c. more than $10 but less than $16
    d. more than $16 but less than $20.
    E. More than $20 but less than $40.

12. Consumer surplus is represented by
    a. the area between the supply and demand curves.
    B. the area above the price and below the demand curve.
    C. the area below the supply curve
    D. the area below the demand curve down to the horizontal axis.
13. One obtains the market demand curve from individual demand curves by:
   a. adding individual demand curves horizontally
   b. averaging individual demand curves.
   C. multiplying individual demand curves.
   D. adding individual demand curves vertically.

14. If labor goes from 3 to 5 and output goes from 21 to 30 then one would conclude:
   a. marginal product over this range is (9/2).
   B. marginal product over this range is 9.
   C. marginal product is above average product.
   D. both a and c are true.
   E. both b and c are true.

15. It is true that:
   a. when average product is below marginal product, average product is falling.
   B. when average product is above marginal product, marginal product is rising.
   C. when marginal product is at its peak, average product is at its peak
   D. None of the above are true.

16. An isoquant with K on the vertical and L on the horizontal axis has a slope whose absolute size
   is
   a. equal to the marginal product of capital minus the marginal product of labor.
   B. equal to the ratio of the average product of capital to the average product of labor.
   C. equal to the ratio of the marginal product of labor to the marginal product of capital.
   D. equal to the ratio of the marginal product of capital to the marginal product of labor.

17. When K is on the vertical axis and L is on the horizontal axis, the marginal rate of technical
    substitution
    a. refers to the absolute size of the change in capital over the change in labor along an
    isoquant.
    B. Is decreasing as one moves toward lower ratios of K/L along an isoquant.
    C. Both a and b are true.
    D. None of the above are true.

18. In drawing the average and marginal product of labor curves as they approach the vertical axis,
    your instructor indicated (and this was reinforced by a numerical example), that,
    a. The average and marginal product curves start at the same (generally positive) height.
    B. The marginal curve starts significantly higher than the average product curve.
    C. The average curve starts significantly higher than the marginal product curve.
    D. the marginal and average product curves start at the origin.
19. Malthus’ views of the future course of income and population were characterized by
   a. a belief that the population would tend to increase if income were above the subsistence level.
   B. a view that land is a fixed factor from a global perspective.
   C. A belief that the average and marginal product of labor would tend to fall at higher levels of labor relative to land.
   D. all of the above are true.

20. The average product of labor equals the marginal product of labor when
   a. total product is at its highest level
   B. average product is at its highest level
   C. average product is at its average level.
   D. marginal product is at its highest level.

21. The budget constraint facing a family choosing between education and the ‘other’ good when the education options are ‘free’ public school or paying for private school without vouchers looks most like which figure in the Figure II collection?
   A. I    B. II
   c. III   d. IV

22. Suppose Paul initially sends his child to the public school where his child gets 10 units of education. Assume education is displayed on the horizontal axis and the other good on the vertical and that the prices of each good are $1 per unit. Suppose the marginal rate of substitution of Paul between education and the other good is 2, at 10 units of education. If a voucher giving Paul’s household $10 in education credits were used to replace free public education, then Paul’s household will be
   a. definitely better off.
   B. neither better nor worse off.
   C. definitely worse off.
   D. more information on Paul’s preferences are needed.

23. Suppose vouchers were used to fund all ‘lower’ education. In that case, the figure in the Figure II collection that would be most like the budget constraint facing a family with a choice between education and ‘other’ goods would be:
   a. I    b. II   c. III    d. IV

24. An expansion path
   a. is drawn holding constant output.
   B. Represents tangency points between isoquants and isocost curves.
   C. Both a and b are true.
   D. None of the above are true.
25. Referring to Figure I, the area that represents the net loss from subsidizing health care so that the price to the consumer is zero per unit even though the price paid by society is $10, is indicated by

26. Theory indicates that moving to a price per bag of garbage that provides sufficient revenue to cover collection costs in place of fixed fee system that finances the costs of collection, leads to
   a. the average person attaining a higher level of utility.
   B. the person who puts out an above-average amount of garbage being made better off.
   C. both a and b are true.
   D. none of the above are true.

27. Increasing returns to scale imply
   a. Fixed coefficients of production.
   B. diminishing marginal rate of technical substitution.
   C. An increasing ratio of output to labor at larger output levels.
   D. None of the above.

28. If output goes down by 15% when all inputs are reduced by 10%, then over this range the production function exhibits
   a. constant returns to scale.
   B. Decreasing returns to scale.
   C. Increasing returns to scale.
   D. variable returns to scale.

29. If average product of labor is 8 when labor is 5, and the average product of labor is 7 when labor is 6, then the marginal product of labor from 5 to 6 units of labor will be
   a. 1  b. 42  c. 2  d. -1

30. If labor goes from 6 to 9 and output goes from 18 to 30, then one would calculate the marginal product of labor as,
   a. 12/3  b. (30/9)-(18/6)  c. (30/18)/(9/6)  d. 12

31. From the viewpoint of societal level cost-benefit analysis jobs on public projects should be counted:
   a. as part of the costs
   B. as part of the benefits.
   C. as part of both costs and benefits.
   D. as whatever our public officials say it is.
32. Division of labor helps explain
   a. the convex shape of isoquants,
   b. why marginal product would be downward sloping when plotted against labor.
   C. Increasing returns to scale.
   D. The negative effects of competition.

33. If inputs are perfect complements in production, isoquants have
   a. a strictly concave shape.
   B. a shape that has right angles like that of a capital “L”.
   C. a positive and constant MRTS.
   D. an MRTS fixed at zero.