KEY

1. (B) For any science, the fundamental test for any model is whether its predictions are acceptably accurate.
2. (B) Changes in chicken farms or the price of chicken food would affect the supply of chicken, not the demand. Assuming that chicken and beef are substitutes, an increase in the price of beef would increase the demand for chicken.
3. (B) Both shifts tend to cause price to rise, but they have a split effect on quantity: the demand shift would tend to increase the equilibrium quantity while the supply shift would tend to decrease the quantity. There is insufficient information to determine which effect prevails.
4. (D) Both shifts tend to cause quantity to rise, but they have a split effect on price: the demand shift would tend to increase the equilibrium price while the supply shift would tend to decrease the price. There is insufficient information to determine which effect prevails.
5. (C) The equilibrium price and quantity of chips both increased. This can occur only if the demand curve shifts right.
6. (D) This is the definition of sunk costs.
7. (C) The time investing his football skills should not be considered, because it is a sunk cost. The salary that would be lost is an opportunity cost that should be considered.
8. (B) In the long run, the price in such a market is determined by the cost of efficient production, which means that the long run supply curve is horizontal at that level. In other words, demand has little effect on price in the long run.
9. (B,C) These are two of the requirements that define free entry. The third requirement is that there is no legal barrier to entry.
10. (B) Normal profits are just what is necessary to cover economic costs, so any profits above that represent economic profits, which would naturally attract entrants if entry were free. Therefore, the persistence of such profits suggests the existence of an entry barrier.
11. (C) Patent-based barriers to entry are important for the pharmaceutical industry. This was covered in class and on the study questions, and the advantage to Merck in particular was covered in the study questions.
12. (B) If the firm does not use the machine for its intended use in production, then the next best "use" is to sell it back to the manufacturer. Its "value" in that use is $10,000. In other words, by using the machine the manufacturer sacrifices the opportunity to sell it back for $10,000.
13. (B) This describes a situation opposite to the situation in #10. Earning a negative economic profit means that the firm is not covering the opportunity cost of the resources consumed, implying that it would be more profitable to divert those resources to other uses.
14. (C) In their shareholder reports, orporations do not generally report shareholders' opportunity costs of investment as a cost. Therefore, even a firm that is earning zero economic profits because it occupies a free entry market typically reports positive profits.
15. (A) The supply and demand curves, which are exogenous in the simple supply and demand model, do not shift to bring the market into equilibrium. The model predicts that the price adjusts to bring the market into equilibrium.
16. (A,C) These are the two basic implications of free entry in a competitive market. Accounting profits can be smaller or larger than economic profits, so there is no implication of zero accounting profits.

17. (C) This is the only value judgment in the list. The other statements are all predictions.
18. (B) The principal, the maturity date, and the interest payments are all set before the bond is sold and remain set through the life of the bond. After the initial sale, the market price of the bond is set by supply and demand in the bond market.
19. (C) It never makes sense to pay more than $10,000 for a bond that will pay less than $10,000. It would be better to put the $10,000 in a drawer.
20. (B) Here we assume, as in class and in the practice questions, that the family sold the painting for $10,000 (since, in the article, it says only "less than $10,000). In class we calculated that the family in Louisiana earned an annualized rate of return of $(\$10{,}000/\$120)^{1/47} - 1 = .099 =$ 9.9%. The practice quiz shows that the two art dealers earned an annualized rate of return of 208%, while the collector and his representative earned a joint return of 54%.
21. (BC) $\$1{,}000/\$870 - 1 = .15 = 15\%$.
22. (B,D,E) A bond must state the principal (size of loan) that will be returned and the date at which date it will be returned. The dates and dollar value of any interest payments on that principal must also be specified in advance. Some bonds such as T-bills do not make interest payments, however, and getting the bond rated is normal if the principal is substantial but not required.
23. (AD) $\$1{,}000/1.015 = \$985$.
24. (BC) $\$1{,}000 \times 1.04^{28} = \$2{,}999$.
25. (AB) The bond produces a payment of $20 in three months and a payment of $1,020 in six months. Therefore, the market price is: $20/1.06^{¼} + 1{,}020/1.06^{½} = 19.71 + 990.71 = 1{,}010.42$.
26. (AD) The market price should be about the same, because the elapsed time is so short, except that now the price incorporates the $20 payment that the previous calculation omitted. So new price is $1,010 + $20 = $1,030.
27. (AE) $1{,}020/1.05^{1/6} = 1{,}010$.
28. (A) An inverted yield curve means that short maturities are earning higher yields than long maturities, the opposite of the usual pattern. This situation indicates that the yields on long maturities are incorporating the market's expectations of lower future interest rates. Low interest rates are usually associated with slow growth or recession.
29. (A,C) High liquidity is associated with high, not low, trading volume.
30. (A) We have discussed this several occasions in class.
31. (C) Ratings agencies evaluate only the likelihood of default.
32. (C) A higher interest rate or yield is the market's way of compensating for some other disadvantage. The size of the corporation is not in itself an advantage or disadvantage, but bankruptcy, which typically leads to at least partial default on the loan, is obviously a bad outcome for bondholders.
33. (A,B) Liquidity and low default risk are both advantages from the investor's viewpoint, so this advantage tends to be offset by low yields. If the interest payments were not subject to federal taxes then that would be another advantage, but that is false: they are subject to taxes. Statement (D) is also false.
34. (E) This is reflected in the data provided in class, where the composite yield on high-quality 20-year corporate bonds is 4.43%. This is also what one would normally expect, because corporate bonds normally pay higher yields than Treasury bonds (corporate is riskier) or municipal bonds (corporate bond interest faces more taxes), and yields on long maturities are normally longer than yields on short maturities.
35. (B)

36. (D)

37. (C) The lower yield should reflect some advantage to state and municipal bonds. Statements (A) and (B) would be disadvantages, not advantages, and statement (D) is false. Statement (C) is true because federal law exempts these bonds from federal taxes.

38. (B) For a bond that makes a single payment X, the market price formula implies that the price equals $X/(1+Y)^N$, where Y is the yield and N is the time remaining until the bond reaches maturity. If Y remains fairly constant over the life of the bond, then the price rises as N declines and eventually reaches zero.

39. (B) The market price of a bond is determined by supply and demand in the market, between the original date of sale and the date of redemption. If yields rise during that period, then the market price could be unexpectedly low, possibly even lower than the original sales price of the bond. If unexpected events lead to selling the bond before maturity, then that implies an unexpected loss for whoever bought the bond.

40. (D) When yields rise, asset prices generally fall. This relationship is very reliable for bonds, but less reliable for stocks because stock prices respond to so many different things.

41. (E) We have discussed the September and October auctions, and in each case the amount sold was $26 billion.

42. (A) This is mentioned in the article and evident in the image of the painting.

43. (D) This was discussed in class, as an example of the high sales commissions in the art market.