KEY

1. (E) High interest rates reduce the importance of payments or expenditures far in the future. Some of the major costs of a nuclear power plant occur at the end of its life, which requires deconstruction and the safe disposal of large quantities of radioactive material.
2. (A) Bond prices fall when interest rates rise.
3. (A) Higher interest rates and lower corporate earnings both tend to reduce stock prices.
4. (A) According to the efficient markets theory, stock prices respond to new information, so the most obvious explanation is that the earnings increase was not new information. The alternative possibility is that the market has not had time to respond, but in class we discussed how quickly this kind of information is processed by Wall Street, to the extent that the banks have special communications installed so that they can get data just a tiny bit faster.
5. (A,B) The equation for intrinsic value has the firm's expected profits in the numerator's (that is what we use as the payment stream) and interest rates in the denominator. The efficient markets theory says that the stock price should follow that intrinsic value.
6. (B) For most decisions, persons and firms are interested in what the interest is after adjusting for inflation: the interest rate in terms of actual purchasing power. The real interest rate makes that adjustment.
7. (A)
8. (B) This is obvious from the definition real rate = nominal rate – expected inflation.
9. (A,B,C,D) These special physical properties help to make gold valuable for jewelry, decoration, and electrical components, which are its main practical uses. Gold is a soft metal, which does not have high strength to weight.
10. (B) This is obvious from the everyday experience of shopping in stores or online.
11. (A) Gold has been accepted as a store of value, and used in coinage, for thousands of years.
12. (B) In the U.S., government takes many actions to ensure the dollar's role as the primary medium of exchange (cf. question 24). It does nothing to support the use or value of gold or Bitcoin.
13. (A) Close substitutes for the dollar include other fiat monies, such as the Euro, and there are many cryptocurrencies. No other metal or other asset has gold's mix of desirable properties.
14. (B) The dollar's stability is measured by low and steady inflation rates. The purchasing power of gold and Bitcoin is much less predictable.
15. (C) Bitcoin allows electronic transactions of unlimited size that are largely undetectable by law enforcement or anyone else. Large undetectable transactions in gold or dollars generally require their physical exchange.
16. (D) 4% – 1% = 3%.

17. (A) Dollars and Bitcoin have no intrinsic value and the efficient markets theory states that shares of IBM reflect only their intrinsic value. Gold however has obvious intrinsic value but also has a market price that exceeds what can be reasonably explained by that intrinsic value.
18. (B) Nominal rates and inflation tend to move together, which implies that the difference between them (the real rate) moves less.
19. (C) The theory says that outperformance represents luck. Past luck says nothing about the likelihood of future luck.
20. (C) This is part of the definition of intrinsic value.
21. (E) The efficient market theory says that the price of a stock should generally equal its intrinsic value, which in this case implies that the price should rise.
22. (C) The theory says that no one should be able to beat market performance consistently, for similar stocks. It is possible, however, to beat market performance by choosing stocks that typically outperform the market, because of some other disadvantage attached to those stocks, such as higher risk.
23. (E)
24. (B,C) The government once backed dollars by gold, but that ended 50 years ago. Banks are generally required to use dollars for transactions, but there are no significant legal restrictions on the use of Bitcoin in private transactions. The Fed is expected to use discretion in putting money into the economy, but there are no legal limits on that discretion.
25. (B) This reflects both federal restrictions and restrictions created by the state of Nevada on trade within the state. None of the last three options has ever seen significant use as a medium of exchange, in the United States.
26. (E)
27. (AB) This is a natural conclusion from the theory of efficient markets, that the only opportunity to beat the market is to exploit information at the beginning of the short interval during which the market price moves to incorporate that information.
28. (A) If stock prices followed a consistent pattern, then the theory of efficient markets says that people would act to exploit that pattern. Stock prices react to new information and, by definition, new information can be either good or bad. Studies fairly consistently show that stock prices do, indeed, move unpredictably rather than in consistent patterns.
29. (B,C) These are two of the requirements that define free entry. The third requirement is that there is no legal barrier to entry.
30. (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.
31. (AD) \$1,000/\$813 – 1 = .23 = 23%.
32. (B) auction price = $\$5{,}000/(1.11)^2 = \$4{,}058$.

33. (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.

34. (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.

35. (AE) In equilibrium $Q_S = Q_D$, which implies $6P - 4 = 77 - 3P$, which solves to $P=9$.

36. (C) This is, essentially, the 20th century definition of a science.

37. (B) When costs increase, the supply curve shifts left.

38. (A) The higher price of consoles will decrease the demand for the complement (games).

39. (C) Nothing has occurred to change the cost of making games or to cause any other effect thatwould shift the supply curve.

40. (B) A left shift in demand, with no clear shift in supply, leads to a lower equilibrium price.

41. (B) The newspaper was found in a shark's stomach.

42. (A) To get real rate = nominal rate − inflation rate small, the best scenario is the lowest possible nominal rate (zero), and a high inflation rate.

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