Homework for Gold Course 2

1. What is a lognormal distribution and why does it exist?
2. Because stocks go straight down
3. Because stocks go straight up
4. Because stocks have dividends which skew the future value higher
5. Because stocks cannot go below 0
6. C and D
7. B, C and D
8. What type of skew is generally associated with the SPX?
   1. Market
   2. Investment
   3. Inverse
   4. Parabolic
9. Volatility is a trader term for what statistical term?
   1. Movement
   2. Upside
   3. Variance
   4. Normal Distribution
10. What are the 3 types of volatility:
    1. Realized, implied, diversified
    2. Parabolic, investment, commodity
    3. Implied, realized, forward
    4. Fear, greed, hope
11. What type of volatility does the standard Black-Scholes model use?
    1. Implied volatility
    2. Realized volatility
    3. Forward volatility
    4. Forecast volatility
12. Is implied volatility an output of the pricing model?
    1. True or False
13. Why does Skew exist (according to Option Pit)?
    1. Stocks go down faster than they go up
    2. Supply and Demand for puts
    3. Long term underlying price assumptions don’t always hold true in the short term
    4. All of the above
14. What is volatility Contango?
    1. Front month IV is equal to back month IV
    2. Back month IV is lower than front month IV
    3. Front month IV is lower that back month IV
    4. None of the above
15. When IV increases quickly, describe what will happen to skew?
    1. The curve will jump up fast
    2. The puts will jump up, but not the calls
    3. The call curve with steepen
    4. The curve will start to flatten if IV continues to climb
    5. A and D
    6. B and C
16. Calculate, using the excel tool, a 1 day GARCH (realized) volatility that has a stock increase in value from 132 to 135 from 1 day to the next. Remember to click on the cell with the number and change the values in the function bar.
    1. 30%
    2. 36%
    3. 40%
    4. 44%
17. How is IV calculated: What causes IV to move?
    1. The option price changes
    2. The perceived forward volatility changes
    3. The option price changes relative to the underlying price
    4. B and C
    5. A and B
18. What are 3 issues associated with IV?
    1. IV is wrong, IV Is overpriced, IV changes
    2. The bid/ask spread, forward IV is usually higher than realized volatility, IV per strike can create problems with hedging
    3. IV is too low, the midpoint price is always wrong, IV30 is only for the VIX
19. What is ‘Term Structure”?
    1. The relationship between strikes
    2. The relationship between futures and options
    3. The relationship between stock and options
    4. The relationship between two expiration cycles
20. Explain the difference between realized and implied volatility?
    1. Realized volatility and implied volatility are the same
    2. Realized and Implied volatility are not related
    3. Realized volatility is a result of the equity movement and implied volatility is a result of the option price
    4. While both are different they are linked to a common underlier.
    5. B and C
    6. C and D

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