34 INTRODUCTION TO CO...AND COMMODITY DERIVATIVES

1. Which of the following statements regarding the pricing of commodity futures contracts is most accurate?
   (A) The convenience yield for a commodity is positively correlated with the futures price.
   (B) Commodities that are subject to sudden and large demand shocks may exhibit backwardation in the futures market due to significant convenience yields.
   (C) The arbitrage free price of a commodities futures contract is often lower than that of a financial security futures contract due to storage costs.

2. Suppose that corn futures contracts are in backwardation. Which of the following is least likely to be true?
   (A) the basis for corn futures contract is negative.
   (B) roll yield on the corn futures is positive.
   (C) Spot price of corn is higher than the futures price.

3. Which commodity is most likely to be characterized by large economies of scale in production?
   (A) Wheat.
   (B) Cattle.
   (C) Copper.

4. As opposed to stocks and bonds, commodities are most likely:
   (A) traded on futures exchanges.
   (B) physical assets.
   (C) characterized by lack of intrinsic value.

5. An investor establishes a long position in 800 WTI (oil) contracts at $45 per barrel. Which of the following components of investor's return will have a non-negative value?
   (A) rebalancing return
   (B) price return
   (C) roll return

6. Which of the following statements regarding commodity returns is least accurate?
   (A) A commodity futures market in backwardation will increase the return on an investor's position via a positive roll yield.
   (B) Due to roll yield and collateral yield, a commodity futures position may have a positive yield despite a drop in the spot price.
   (C) The collateral yield on a commodity futures position is negative if the convenience yield is lower than the storage cost.

7. A commodity futures contract in contango will most likely:
   (A) lead to positive roll return.
   (B) entail purchasing more contracts to maintain same value exposure to the commodity.
   (C) entail purchasing fewer contracts to maintain same value exposure to the commodity.

8. Which of the following commodities has historically been least likely to be traded globally?
   (A) Livestock.
   (B) Natural gas.
   (C) Corn.

9. Don Chancery is working on a forecast of commodity price movements for the economic research department at his investment firm. He is basing his predictions on the theory that pricing is driven solely by producers who hold (or expect to hold) commodities, and hedge their position with a short futures contract, leading to normal backwardation. Which of the following theories is Chancery most likely using?
   (A) The Insurance Theory.
   (B) The Theory of Storage.
   (C) The Hedging Pressure Hypothesis.

10. The current spot price of a commodity is $85.20. An investor purchases a 6 month futures contract on the underlying commodity at a price of $84.80. Which of the following statements regarding the roll yield is most accurate?
   (A) If the market stays in backwardation, the roll return will be positive regardless of the movement in spot price.
   (B) Roll return will only be negative if the spot price drops below $84.80 at maturity.
   (C) Roll return will only be positive if the spot price drops below $85.20 at maturity.

11. An oil refiner wants to hedge oil price risk using a swap. The swap pays the oil price above \$50 per barrel in exchange for a fixed price of \$1 per barrel. The notional principal is 1 million barrels. If the refiner enters the swap, the total profit to the refiner if the price of oil is \$52 is closest to:
    (A) +\$1,000,000
    (B) +\$2,000,000
    (C) – \$2,000,000

12. Ben Tarson, CFA is currently undertaking an analysis of the commodity markets to present to a potential client. Part of his presentation concerns the impact short hedgers have on the price of commodity futures contracts. Which of the following market participants is most likely to take a short hedge position?
    (A) A hedge fund buying copper in the spot market and selling copper futures contracts.
    (B) Airline looking to purchase fuel forward.
    (C) Wheat farmer looking to sell wheat forward.

13. Political risk is least likely to affect the price of which commodity?
    (A) Coffee.
    (B) Oil.
    (C) Industrial Metals.

14. Roger Torsten is studying historical data on the commodities markets to assist with his a forecast he is producing in his role as an economic researcher. He has observed long periods in the past when the term structure of the futures market for a commodity displays a negative trend. Which of the following explanations is most likely an explanation for this observed trend?
    (A) Manufacturers, concerned about increasing commodity prices are buying commodity futures to hedge input costs.
    (B) Due to an increase in the supply of the commodity, the convenience yield has dropped to nearly zero.
    (C) Producers concerned about a potential drop in price of the commodity are taking hedging positions to lock in a sales price.

15. As compared to a production value-weighted index, an equally weighted index would most likely have:
    (A) equal weight to oil.
    (B) higher weight to oil.
    (C) lower weight to oil.