Question 1

Backwardation can be explained by:

Options:

A- expectations of oversupply in the future

B- convenience yields being greater than the total carrying cost

C- short term shortages in the spot markets

D- all of the above

Answer:

D

Explanation:

When forward prices are greater than the spot prices, the market is said to be in contango. When forward prices are lower than spot prices, the market is said to be backwarded. A short squeeze may contribute to backwardation as shorts try to buy in the spot market to

cover their short positions. Similarly, expectations of oversupply in the future, for example due to a bumper harvest may create situations where the forward prices fall below spot prices. Convenience yield is the benefit from having access to the commodity - and if the convenience yield is very high, for example in a market where manufacturers must never run out of a particular raw material, then these can switch the costs of carry (which include interest and storage costs, less convenience yields) to being negative.

Since all these factors can contribute to backwardation in the market, Choice 'd' is the correct answer.

Question 2

Question Type: **MultipleChoice**

If the spot price for a commodity is lower than the forward price, the market is said to be in:

Options:

A- contango

B- backwardation

C- a short squeeze

D- disequilibrium

Answer:

A

Explanation:

When the forward prices are greater than the spot prices, the market is said to be in contango. When forward prices are lower than spot prices, the market is said to be backwarded. A short squeeze may contribute to backwardation. Choice 'a' is the correct answer.

Question 3

Question Type: MultipleChoice

The quote for which of the following methods of physical delivery of a futures contract would be the cheapest?

Options:

A- Free on board

B- Free alongside ship

C- In store

D- Cost, insurance and freight

Answer:

C

Explanation:

'In store' delivery is for delivery in a standardized location, and the buyer is handed a 'warrant' that allows him to pick the goods up. This is the cheapest means of physical delivery. The other prices will be higher as they involve more costs for the seller who has to get the goods on board a ship, or to the docks, or insurance and freight as well. Choice 'c' is the correct answer.

Question 4

Question Type: MultipleChoice

Calculate the settlement amount for a buyer of a 3 x 6 FRA with a notional of $1m and contract rate of 5%. Assume settlement rate is 6%.

Options:

A- Receive $9434

B- Pay $2463

C- Receive $2463

D- Pay $9434

Answer:

C

Explanation:

An m x n FRA is an agreement to borrow money for a period starting at time m and ending at time n at the contracted rate. Therefore, the buyer of the 3 x 6 FRA has committed to borrow $1m at the beginning of 3 months and return it at the end of 6 months, ie a total borrowing period of 3 months at a rate of 5%. Of course, the $1m is never actually exchanged, and at the beginning of the 3 month period when the next three months' interest rate is known (6%), the parties merely exchange the difference in the interest. SInce this interest was only due at the end of the 6 months and is being exchanged at the 3 month time point, it will have to be discounted to its present value.

The correct answer to this question is =(1,000,000 * (6% - 5%) * 3/12)/(1 + (6%*3/12))=$2463.05. Since interest rates rose, the borrower gained as he has the right to borrow at a lower rate, and therefore the seller will pay the borrower.

(Here:

- $1m is the notional

- 6% - 5% represents the difference between the contracted and the realized interest rates

- 3/12 is the 3 month period from month 3 to 6

- Finally, we divide by the current interest rate for 3 months to present value the payment from month 6 to month 3)

Question 5

Question Type: **MultipleChoice**

Futures initial margin requirements are

Options:

A- determined based on the client's credit history

B- determined by the members based on the SPAN framework

C- determined based on the length of the settlement period

D- determined by the exchange

Answer:

D

Explanation:

Futures initial margins are determined by the exchange. SPAN is the name of a framework the CME uses to determine margins. Only Choice 'd' is correct.

Question 6

Buying an option on a futures contract requires:

Options:

A- both initial margin and option premium to be paid upfront at the time of entering into the contract

B- the option premium to be paid upfront and futures margins will become due if the option is exercised

C- only option premiums to be paid upfront and any daily mark-to-market P&L

D- only initial margin to be paid at the time of the option exercise

Answer:

B

Explanation:

An option on a futures contract is like any other option contract, and only the option premium is due upfront. If the option is exercised, then the futures contract comes into existence and futures margins become due in the normal way. Therefore Choice 'b' is the correct answer.

Question 7

Question Type: MultipleChoice

A futures clearing house:

Options:

A- provides a dispute settlement forum for the buyers and sellers

B- guarantees the obligations associated with physical delivery

C- guarantees the cash settlement of a futures contract

D- all of the above

Answer:

C

Explanation:

It is important to note the distinction between the clearing house and the exchange itself. The clearing house does not get involved with physical delivery, nor does it provide any dispute settlement services. It only makes sure that cash is settled as and when due between the members. Therefore Choice 'c' is the correct answer

Question 8

Question Type: **MultipleChoice**

The vast majority of exchange traded futures contracts are:

Options:

A- closed by an offsetting trade prior to expiry

B- settled using physical settlements

C- cash settled upon expiry

D- settled by delivery

Answer:

A

Explanation:

The vast majority of exchange traded futures contracts are closed out prior to expiry by the parties acquiring offsetting positions. Very few contracts are settled by delivery. Since P&L on futures contracts is settled daily, 'cash settlement' really does not mean much as only the previous day's P&L is due or receivable on any given day.

Question 9

Profits and losses on futures contracts are:

Options:

A- settled upfront

B- settled upon the expiry of the contract

C- settled by moving collateral

D- settled daily

Answer:

D

Explanation:

Profits and losses on futures contracts are settled daily. (P&L on forward contracts is often settled upon the expiry of the contract, and may even be collateralized.) Therefore Choice 'd' is the correct answer.

Question 10

The gamma in a commodity futures contract is:

Options:

A- zero

B- always negative

C- parabolic

D- dependent upon the convexity

Answer:

A

Explanation:

Futures contracts carry no gamma. Only options have gamma. Choice 'a' is the correct answer. Any instrument whose price varies in a linear fashion with respect to the underlying will have gamma equal to zero.

Question 11

What is the notional value of one equity index futures contract where the value of the index is 1500 and the contract multiplier is $50:

Options:

A- 75000

B- 200

C- 50

D- 1500

Answer:

A

Explanation:

The correct answer is the index value times the contract size, in this case 1500 x 50.

One way to think about index futures is this: Consider equity index trading as trading in the shares of a company whose share price is equal to a number of dollars which is the same as the index. If the 'contract multiplier' for a index futures contract is 50, that means the futures contract is for 50 shares of such a fictitious company. Therefore the notional value of the contract will be 15000 x 50, and Choice 'a' is the correct answer.