**Assignment for Week 9**

**Introduction to Derivatives - Futures & Options**

***Choose the correct answer by highlighting it***

1. What is the key difference between futures and options?

a) Futures have a fixed expiry; options do not

b) Futures oblige the holder to buy or sell; options give the right, but not the obligation

c) Options are only used for commodities; futures are used for stocks

d) Options have no margin requirements; futures have margin requirements

2. In derivative contracts, a futures contract is:

a) An agreement to buy or sell an asset at a predetermined price on a specific future date

b) The right, but not the obligation, to buy an asset at a future date

c) A method of avoiding taxes

d) A method for ensuring dividends

3. What does "short selling" in futures mean?

a) Buying futures contracts for a longer duration

b) Selling a futures contract expecting the price to rise

c) Selling a futures contract expecting the price to fall

d) Selling shares without owning them

4. Leverage in futures trading allows:

a) Traders to increase exposure to the asset with less capital

b) Traders to buy assets at a discount

c) Investors to hold contracts until the price doubles

d) No borrowing capital for investments

5. What happens to a futures contract on the expiry date?

a) It automatically renews

b) It must be settled, either by cash or physical delivery

c) It becomes invalid and ceases to exist

d) The profit or loss is carried forward

6. Which of the following is required to trade futures?

a) Premium

b) Margin

c) Dividends

d) Interest rates

7. Open interest in futures refers to:

a) The total number of futures contracts traded

b) The number of open or active positions in a futures market

c) The number of people interested in futures contracts

d) The total volume traded in futures contracts

8. A "long buildup" indicates:

a) A rise in price accompanied by a decrease in open interest

b) A rise in price with an increase in open interest

c) A fall in price with no change in open interest

d) A fall in price with an increase in open interest

9. Short covering occurs when:

a) Traders initiate new short positions

b) Traders close out existing short positions by buying back contracts

c) Traders open new long positions

d) Traders hedge existing short positions with options

10. What does "long unwinding" in futures imply?

a) Traders are adding more long positions

b) Traders are closing long positions

c) Traders are increasing short positions

d) Traders are keeping positions unchanged

11. A call option (CE) gives the holder the right to:

a) Sell the underlying asset at the strike price

b) Buy the underlying asset at the strike price

c) Hold the asset indefinitely

d) Lend the asset to another trader

12. A put option (PE) gives the holder the right to:

a) Sell the underlying asset at the strike price

b) Buy the underlying asset at the market price

c) Lease the asset for income

d) Hold the asset until expiration

13. The buyer of a call option benefits when:

a) The price of the underlying asset decreases

b) The price of the underlying asset increases

c) The volatility of the market reduces

d) The underlying asset remains constant

14. The seller of a put option will profit if:

a) The price of the underlying asset decreases

b) The price of the underlying asset increases

c) The volatility increases

d) The expiration date is delayed

15. The strike price in an option contract is:

a) The price at which the buyer can exercise the option

b) The market price of the underlying asset

c) The difference between the asset price and premium

d) The price set by the broker

16. What happens when an option expires?

a) It gets renewed automatically

b) It must be exercised or it expires worthless

c) It gets converted into shares

d) It is transferred to another holder

17. The premium paid for an option represents:

a) The profit from buying the option

b) The cost of purchasing the option

c) The dividends expected from the underlying asset

d) The margin requirement for the position

18. The intrinsic value of an option is:

a) The difference between the underlying price and the strike price

b) The total cost of holding the option until expiration

c) The premium received when selling the option

d) The future price of the asset

19. An "in-the-money" (ITM) call option means:

a) The strike price is below the market price of the underlying asset

b) The strike price is above the market price of the underlying asset

c) The market price equals the strike price

d) The premium is at its highest value

20. An "out-of-the-money" (OTM) put option occurs when:

a) The strike price is above the current market price

b) The strike price is below the current market price

c) The strike price equals the market price

d) The market is not yet open

21. When an option is "at-the-money" (ATM), it means:

a) The strike price is equal to the market price

b) The market price is far above the strike price

c) The option premium is zero

d) The option has already expired

22. Which of the following describes an option with no intrinsic value?

a) ITM

b) ATM

c) OTM

d) Expired option

23. An option chain is:

a) A list of all option contracts for a given underlying asset

b) A network of options traded globally

c) A sequence of option exercises over time

d) A regulatory mechanism for pricing options

24. In an option chain, open interest represents:

a) The total number of trades made

b) The number of active contracts that have not been settled

c) The premium paid on options

d) The number of traders in the market

25. What does the "volume" column in an option chain indicate?

a) The number of contracts bought or sold in a given time period

b) The total open interest for that strike price

c) The price of the option premium

d) The number of traders involved in that contract

26. In an option chain, which strike prices typically have the highest open interest?

a) ITM options

b) OTM options

c) ATM options

d) Expired options

27. What can an option chain help a trader analyze?

a) Stock dividends

b) Market volatility, open interest, and potential price movement

c) Bond yields

d) Foreign exchange rates

28. A rise in open interest in a particular strike price on the option chain suggests:

a) Reduced market activity

b) Increased trading activity and interest in that price level

c) The option is expiring soon

d) The underlying asset is not being traded

29. In an option chain, the "bid-ask spread" represents:

a) The difference between the highest price a buyer is willing to pay and the lowest price a seller is willing to accept

b) The difference between the strike price and the market price

c) The number of buyers versus sellers in the market

d) The total volume of trades made for that option

30. Which factor is most important when interpreting option chain data to predict price movement?

a) Implied volatility and open interest

b) Historical volatility and option premium

c) Strike price and volume

d) Expiry date and intrinsic value

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