Assignment for Week 5
Indicators and Oscillators

Choose the correct answer by highlighting it

Indicators

1. **Simple Moving Average (SMA), Exponential Moving Average (EMA), Weighted Moving Average (WMA)**

1. What is the primary difference between a Simple Moving Average (SMA) and an Exponential Moving Average (EMA)?
   a) EMA gives equal weight to all data points
   b) EMA gives more weight to recent data points
   c) SMA is more reactive to recent price changes
   d) SMA gives more weight to recent data points

2. Which of the following moving averages reacts fastest to price changes?
   a) SMA
   b) EMA
   c) WMA
   d) Hull Moving Average

3. Which moving average assigns more weight to recent data while still taking into account older data?
   a) SMA
   b) EMA
   c) WMA
   d) VWMA

4. How is the Weighted Moving Average (WMA) calculated?
   a) By giving equal weight to all prices
   b) By applying a constant multiplier to the previous price
   c) By assigning different weights to prices, with more weight given to recent prices
   d) By using the highest and lowest prices over a period

5. Which of the following moving averages is often used for longer-term trend analysis?

a) 9-period EMA
b) 21-period WMA
c) 50-period SMA
d) 5-period EMA

2. **SUPERTREND**

6. The Supertrend indicator is primarily used to:
a) Identify overbought or oversold conditions
b) Highlight trend reversals
c) Calculate price volatility
d) Measure the strength of a trend

7. What parameters are typically used to configure the Supertrend indicator?
a) ATR and closing price
b) Moving average and RSI
c) VWAP and pivot points
d) MACD line and signal line

8. A buy signal is generated in the Supertrend indicator when:
a) The price crosses above the Supertrend line
b) The Supertrend line turns red
c) The RSI is above 70
d) The MACD line crosses above the signal line

9. In the Supertrend indicator, what does a green Supertrend line signify?
a) Bullish trend
b) Bearish trend
c) Neutral trend
d) Sideways market

10. The Supertrend indicator relies heavily on which of the following to determine trend direction?
a) Moving Averages
b) Relative Strength Index (RSI)
c) Average True Range (ATR)
d) Stochastic Oscillator

3. **VWAP (Volume Weighted Average Price)**

11. The VWAP (Volume Weighted Average Price) is primarily used by:
   a) Day traders
   b) Long-term investors
   c) Swing traders
   d) Dividend investors

12. VWAP is calculated by:
   a) Averaging the high and low prices
   b) Summing price multiplied by volume and dividing by total volume
   c) Using the 50-period SMA as a base
   d) Calculating the difference between EMA and SMA

13. When the current price is above VWAP, it indicates:
   a) Bearish sentiment
   b) Neutral sentiment
   c) Bullish sentiment
   d) No trend

14. Which of the following is true regarding VWAP?
   a) It resets daily
   b) It is used for identifying long-term trends
   c) It gives more importance to lower volumes
   d) It is calculated on a weekly basis

15. Traders often use VWAP to:
   a) Identify overbought and oversold conditions
   b) Measure the average price of a security over a trading session
   c) Determine support and resistance levels
   d) Detect volatility in the market

4. **Pivot Points**

16. What is the primary function of Pivot Points in technical analysis?
   a) Measure price volatility
   b) Identify potential support and resistance levels
   c) Calculate price momentum
   d) Determine overbought and oversold levels

17. The central Pivot Point is calculated using:
   a) (High + Low + Close) / 3

b) (High + Low + Volume) / 2
c) (Open + Close) / 2
d) (High + Low + Open) / 3

18. R1, R2, and R3 in pivot points represent:
a) Resistance levels
b) Support levels
c) Moving averages
d) Volatility bands

19. A trader would consider a bullish signal when:
a) Price is below the pivot point
b) Price crosses above the pivot point
c) Price is moving sideways near R2
d) The RSI is below 30

20. Pivot Points are best suited for which type of trading?
a) Long-term investing
b) Intraday trading
c) Swing trading
d) Position trading

Oscillators

1. **Relative Strength Index (RSI)**

21. The Relative Strength Index (RSI) typically uses a lookback period of:
a) 7 days
b) 14 days
c) 30 days
d) 50 days

22. An RSI value above 70 typically indicates:
a) Overbought conditions
b) Oversold conditions
c) Bullish momentum
d) Bearish momentum

23. Which value of RSI is typically considered oversold?

a) Below 70
b) Below 50
c) Below 30
d) Below 10

24. A divergence between RSI and price movement is often considered a signal of:
a) Continuation
b) Reversal
c) Breakout
d) Trend strengthening

25. RSI is classified as which type of indicator?
a) Trend-following indicator
b) Volatility indicator
c) Momentum oscillator
d) Volume-based indicator

2. **MACD (Moving Average Convergence Divergence)**

26. MACD is the difference between which two moving averages?
a) 9-day EMA and 12-day EMA
b) 12-day EMA and 26-day EMA
c) 9-day EMA and 21-day EMA
d) 26-day EMA and 50-day EMA

27. A buy signal in MACD is typically generated when:
a) The MACD line crosses above the signal line
b) The MACD histogram is below zero
c) The price is above the MACD line
d) The RSI is above 70

28. The MACD histogram represents the difference between:
a) The price and the MACD line
b) MACD line and signal line
c) MACD line and RSI
d) MACD line and moving averages

29. A bearish MACD signal occurs when:

a) The MACD line crosses below the signal line
b) The MACD histogram is positive
c) The RSI is below 30
d) Price is above the pivot point

30. The signal line in MACD is:
a) A 9-period moving average of the MACD line
b) A 14-period simple moving average
c) A 20-period exponential moving average
d) A 50-period weighted moving average