

SAMPLE CMT LEVEL I EXAM

PREFACE:

The following document is a sample exam paper. The questions have been constructed/ phrased in a manner that is similar to past exams. The objective of this sample exam is to give a clear indication of the question structure and language one can expect in the exam.

Important points to note

- Please note that there may be up to 25% variation in the question mix in the Level II exams as changes in administration occur. Also note that these sample questions are patterned after a limited number of questions drawn from a much larger pool of actual exam questions. This further increases the chances that the questions appearing in the exam may be significantly different from those contained in this sample. Candidates are cautioned *not to expect* the questions from the previous years' exams to appear in the current year.
- In addition, these sample questions cover a variety of topics; however, in the actual exam the weighting may vary, i.e. the proportion of questions drawn from different topics may be different from the pattern followed in this sample paper. The actual exam consists of 135 questions of which 120 are scored items.
- In some aspects, these sample questions are designed differently from the actual exam so as to better serve as a reviewing tool for candidates. For example, many questions and/or answers may be longer than in the actual exam so that the questions and answers serve as a review of the material.

Please note that this sample question booklet has been prepared completely independently from the exam to ensure that the questions that will appear in the actual exam paper remain secure and confidential. The MTA maintains a discussion group forum for CMT candidates on its web site. Candidates are encouraged to utilize this resource and to discuss and clarify questions regarding the areas of the Body of Knowledge where they lack familiarity or seek better understanding.

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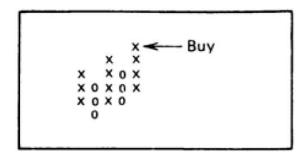
CMT Level 1 Sample Questions – Candidate Answer Sheet

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21	51	81	111
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29	59	89	119
30	60	90	120

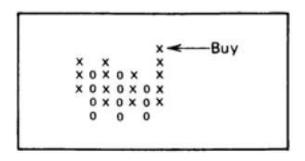
- David Johnson, a senior analyst with a brokerage firm, decides to change his
 recommendation for the common stock of Pigeon Industries, Inc. from a "buy" to a
 "sell". This change in investment advice is mailed to all the firm's clients on Wednesday.
 Next day, a client calls in with a buy order for 500 shares of Pigeon Industries, Inc. In
 this circumstance, Johnson should:
- a) Accept the order.
- b) Advise the customer of the change in recommendation after accepting the order.
- c) Advise the customer of the change in recommendation before accepting the order.
- d) Not accept the order because it is contrary to the firm's recommendation.
- 2. The mosaic theory holds that an analyst:
- a) Violates the Code and Standards if the analyst fails to have knowledge of and comply with the applicable laws.
- b) Can use material public information and nonmaterial nonpublic information in the analyst's analysis.
- c) Should use all available and relevant information in support of an investment recommendation.
- d) Can use material and nonmaterial nonpublic information in the analyst's analysis.
- 3. Bell is a portfolio manager. One of his firm's clients has told Bell that he will compensate him beyond the compensation provided by his firm on the basis of the capital appreciation of his portfolio each year. Bell should:
- a) Accept the arrangement before obtaining permission from his employer.
- b) Obtain permission from his employer prior to accepting the compensation arrangement.
- c) Turn down the additional compensation because it will create undue pressure on him to achieve strong short-term performance.
- d) Turn down the additional compensation because it will result in conflicts with the interests of other client's accounts.

- 4. Which of the following is a correct statement of a member's or candidate's duty under the Code and Standards?
- a) In the absence of specific applicable law or other regulatory requirements, the Code and Standards govern the member's or candidate's actions.
- b) A member or candidate is required to comply only with applicable local laws, rules, regulations, or customs, even though the Code and Standards may impose a higher degree of responsibility or a higher duty on the member or candidate.
- c) A member or candidate who trades securities in a market where no applicable laws or stock exchange rules regulate the use of material nonpublic information may take investment action based on material nonpublic information.
- d) A member or candidate who trades securities in a market where stock exchange rules permit the use of material nonpublic information may take investment action based on material nonpublic information after obtaining prior approval from his/her supervisor.
- 5. Elizabeth is a financial analyst with XYZ Brokerage Firm. She is preparing a purchase recommendation on JNI Corporation. Which of the following situations is most likely to represent a conflict of interest for Elizabeth that would have to be disclosed?
- a) Elizabeth's brother-in-law is a supplier to JNI.
- b) Elizabeth frequently purchases items produced by JNI.
- c) XYZ holds for its own account a substantial common stock position in JNI.
- d) Elizabeth's experience with purchasing items produced by JNI has been extremely positive.
- 6. To increase the sensitivity of a 5x3 Point and Figure chart, one would:
- a) Increase the box size
- b) Decrease the box size
- c) Increase the number of boxes needed for a reversal
- d) Decrease the number of boxes needed for a reversal
- 7. A basic Point and Figure buy signal is triggered when:
- a) A new "X" is marked in the current column of Xs
- b) The current column of Xs rises above the previous column of Os by one box
- c) The current column of Xs rises above the previous column of Xs by one box
- d) The current column of Xs rises above the previous column of Xs by three boxes
- 8. In constructing a point and Figure chart, a new entry is added only when:
- a) Price has moved to a new high or low
- b) Volume confirms the price movement
- c) Price has moved less than the specified box size
- d) Price has moved equal to or more than the specified box size

9. Identify the Point and Figure pattern highlighted below:



- a) Triple Top Buy
- b) Bullish Double Top
- c) Ascending Triple Top
- d) Bullish Ascending Triangle Breakout
- 10. The Point and Figure pattern highlighted below is a:



- a) Triple Top Buy
- b) Bullish Diagonal Buy
- c) Spread Triple Top Buy
- d) Ascending Triple Top Buy

11. When the Stochastic indicator crosses below 20, it is signaling
a) The need to sell and liquidate a position for cash
b) An opportunity for a trader to buy
c) The lowest price in the last 20 sessions has just occurred
d) The price is vulnerable to a reversal, but no action needs to be taken just yet.
12. Which of the following principles describes a characteristic of related cycles
a) harmonics
b) phase shift
c) summation
d) fourier analysis
13. Which of the following formations is often called a coil?
a) Flag
b) Diamond Top
c) Wedge
d) Symmetrical Triangle
14. Bullish support lines on a 3-box reversal Point and Figure chart are drawn at a degree angle:
a) 45
b) 60
c) 75
d) 90
15. The stock multiplication factor to adjust for a 30% stock dividend on a Point and Figure chart is:
a) 1.1
b) 1.3
c) 1.33
d) 0.70
16. Which chart type uses more than one data point to plot a particular time interval?
a) Line
b) Tick
c) Candlestick
d) Point and Figure

17	7 mean is the best choice when averaging ratios that can be either fractions or
	percentages:
a)	Arithmetic
	Geometric
c)	Quadratic
d)	Harmonic
	3. Kurtosis refers to the:
	Peakedness or flatness of a distribution
	Amount of distortion from a symmetrical distribution
	Measures of dispersion that describe the shape of the data points
d)	Persistence in data that suggests future data can be predicted using past data
19	9. Standard deviation is calculated by taking the square root of:
	Variance
b)	Mean deviation
c)	Quadratic mean
d)	Geometric mean
20) If the deily metume are constant they can be convented to apprehimation disk by more times.
20). If the daily returns are constant, they can be converted to annualized risk by multiplying the daily return with the square root of:
2)	365
	360
	252
	260
u)	
21	. The Sharpe ratio is a measure of:
a)	Risk
b)	Volatility
c)	Performance
d)	System robustness
22	2. Seasonality is a cycle that occurs:
a)	Monthly
b)	Quarterly
c)	Half-yearly
d)	Yearly
-)	····· y

23	3. Fungibility is:				
a)	Interchangeability of financial assets on distinct terms				
b)	Interchangeability of financial assets on identical terms				
c)	The ability of trends to act differently over similar periods				
d)	The ability of trends to act similarly over different periods				
24	4. The cycle, along with trend and comprise the three orderly components				
	of price movement:				
a)	Direction				
b)	Volatility				
c)	Seasonality				
d)	Momentum				
25	5. The global business cycle as identified by the Princeton Economic Institute measures:				
	4 years				
b)	8 years				
c)	8.6 years				
d)	10.5 years				
	6. Which of the following cycles is the longest by duration:				
	Decennial Pattern				
	Kondratieff Wave				
	Presidential Cycle				
d)	34-year Historical Cycle				
25					
2.	7. Typically, the year of a president's term posts the strongest returns for the				
,	market as per the Presidential Cycle:				
1	First				
b)	Second				
a)	Fourth				
25	An affective way of detranding price data to identify evalue is to:				
<u>.</u> (•				
c)d)28a)b)c)d)	Third Fourth 8. An effective way of detrending price data to identify cycles is to: Use an oscillator and identify extreme levels Use a moving average of the highs/lows over n periods Divide the closing prices by a moving average of those prices Plot a linear regression (best-fit) line through the data midpoint				

- 29. The New High-New Low index is calculated by:
- a) Dividing New Highs by New Lows
- b) Dividing New Lows by New Highs
- c) Subtracting New Highs from New Lows
- d) Subtracting New Lows from New Highs
- 30. If the New High-New Low index declines while the broader market stays flat or rallies:
- a) The market may consolidate near-term
- b) It is time to take profits on long positions
- c) It is time to take profits on short positions
- d) The market may still continue to move higher
- 31. As per the theory of contrarian opinion, a high degree of consensus normally precedes:
- a) A consolidation
- b) A trend reversal
- c) Trend continuation
- d) An expansion in Trading Volume
- 32. The Commitment of Traders report summarizes:
- a) The positions of reporting traders on a weekly basis
- b) The positions of non-reporting traders on a weekly basis
- c) Buying and selling by commercials and large speculators
- d) The positions of non-reporting and reporting traders on a weekly basis
- 33. Which of the following statements accurately describe a support level?
- a) Price peaks often define a support point
- b) Tests of a support level are normally preceded by a price advance
- c) A price level where buying is strong enough to interrupt or reverse a decline
- d) A price level where selling is strong enough to interrupt or reverse an advance
- 34. A bear trap occurs when:
- a) Prices recapture a violated support level after sell signals are generated
- b) Prices close above a resistance level after sell signals are generated
- c) Prices breakout above a clear resistance level and fall back below it
- d) Prices fail to surpass a clear resistance level and sell off from it

- 35. Serial correlation or autocorrelation means
- a) That there is persistence in the data.
- b) That a false correlation in the data that automatically appears.
- c) There is no discernable relationship between the two variables.
- d) That the relationship between the two variables is greater than .5.
- 36. The most important feature of the martingale process that makes it an appropriate model for EMH is:
- a) The absence of future price predictability
- b) The absence of price return anomalies that are unexplained
- c) The presence of price return anomalies that are unexplained
- d) The presence of information that aids in future price predictability
- 37. Risk aversion refers to the assumption that investors prefer a portfolio with:
- a) Stable returns that represent the lowest variance in returns
- b) Higher returns but are averse to higher variance in returns
- c) Higher returns but are averse to lower variance in returns
- d) Lower returns that represent a lower variance in returns
- 38. Beta measures:
- a) The relation between a portfolio's return and market return
- b) The relation between a portfolio's volatility and market volatility
- c) How much an individual stock's return is related to the market return
- d) How much an individual stock's volatility is related to the market volatility
- 39. In EMH, technical traders can be thought of as a specific type of noise trader because:
- a) Technical traders are rational traders
- b) Technical traders are not rational traders
- c) A positive feedback loop can lead to pronounced bubbles
- d) The cancel-out phenomenon will apply to a large number of trend following strategies
- 40. When sentiment indicators point to extreme optimism:
- a) Liquidity is low
- b) Liquidity is high
- c) Volatility is extremely high
- d) Markets are likely to follow through with more upside

41. From a sentiment perspective: a) Extreme optimism reflects high cash balances b) Liquidity and psychology are inversely related c) Liquidity and psychology are positively correlated d) Valuation measures short-term extremes in psychology 42. For short-sellers of a security, market risk refers to the possibility of: a) A drop in value b) An increase in value c) An increase in volatility d) A default by the counterparty 43. Slippage is normally attributed to: a) Credit risk b) Market risk c) Default risk d) Liquidity risk 44. Political risk refers to: a) The potential of depreciating currency to negatively impact investments b) The potential of a credit rating upgrade to positively impact investments c) The potential of a credit rating downgrade to negatively impact investments d) The potential of legislative actions to deter companies from reaching their goals 45. Yield refers to the projected annual return on a bond based on its: a) Current market price b) Coupon payment c) Nominal price d) Face value

46. Treasury Inflation-Protected Securities (TIPS) are bonds whose ______ is adjusted

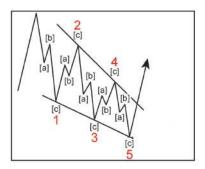
based on the level of inflation (change in consumer prices):

a) Principleb) Coupon ratec) Market priced) Maturity value

- 47. An inverted yield curve has historically pointed toward:
- a) Economic expansions
- b) Inflationary pressures
- c) Deflationary pressures
- d) Economic slowdowns and recessions
- 48. Treasury-bill returns come from:
- a) Price changes
- b) Interest payments
- c) Dividend payments
- d) Price changes and interest payments
- 49. Which of the following bonds exceed rating thresholds set by S&P, Moody's and Fitch?
- a) Junk bonds
- b) High-yield bonds
- c) Investment-grade bonds
- d) Corporate Class A bonds
- 50. Debentures are a type of:
- a) Secured loans
- b) Perpetual loans
- c) Unsecured loans
- d) Zero coupon bonds
- 51. Companies can borrow for two years by selling:
- a) Corporate Bonds
- b) Commercial Paper
- c) Treasury securities
- d) Medium-term notes
- 52. In spot markets, commodities such as gold are sold for:
- a) Future delivery
- b) Immediate delivery
- c) A discount to future prices
- d) A premium to future prices

53. Which of the following commodities also acts as a barometer of an e	economy's prospects?
a) Gold	
b) Zinc	
c) Copper	
d) Aluminum	
54. The benchmark grade of U.S. oil is commonly called:	
a) Brent	
b) NFC	
c) WTI	
d) WCS	
55. Which of the following is a trade-weighted geometric index?	
a) S&P 500 index	
b) U.S. dollar index	
c) NYSE Composite index	
d) Dow Jones Industrial Average	
56. The CBOE Volatility Index (VIX) is a measure of:	
a) 30-day implied volatility as priced by the S&P 500 index option mark	ket.
b) 30-day historical volatility as priced by the S&P 500 index option ma	rket.
c) 30-day implied volatility as priced by the NYSE Composite index op	tion market.
d) 30-day implied volatility as priced by the NASDAQ Composite index	k option market.
57. Increased buying of options by market participants leads to:	
a) A decrease in open interest	
b) A decrease in implied volatility	
c) An increase in implied volatility	
d) Neither an increase nor a decrease in implied volatility	
58 A VIV reading of 20 implies market expectations of a move or	van the next 20 device
58. A VIX reading of 20 implies market expectations of a move ov a) 4.77%	of the heat 30 days.
·	
b) 5.77%	
c) 6.77%	
d) 2.77%	

- 59. Charles Dow's first major contribution to the field of technical analysis is:
- a) The Dow Theory
- b) Point and Figure charting technique
- c) The development and use of indices
- d) The concept of relative strength analysis
- 60. The basic five-wave sequence in the Elliott Wave Theory is termed as:
- a) Zigzag
- b) Diagonal
- c) Motive wave
- d) Corrective wave
- 61. As per the Elliott Wave Theory, in an impulse wave:
- a) Wave 4 always overlaps the price territory of wave 1.
- b) Wave 2 can sometimes move beyond the start of wave 1.
- c) Wave 3 can be the shortest motive subwave if wave 5 experiences extension.
- d) Wave 3 can never be the shortest motive subwave, but may not be the longest.
- 62. Which of the following can be classified as a motive wave when analyzing charts as per Elliott's Wave Theory?
- a) Diagonal
- b) Triangle
- c) Zigzag
- d) Flat
- 63. The Elliott Wave pattern highlighted below is a/an:



- a) Flat
- b) Zigzag
- c) Triangle
- d) Ending Diagonal

- 64. Which of the following is an appropriate scale to analyze long-term price movements with considerable volatility on a price chart?
- a) Ratio
- b) Geometric
- c) Arithmetic
- d) Logarithmic
- 65. Gaps that appear midway in a price trend are:
- a) Opening gaps
- b) Runaway gaps
- c) Exhaustion gaps
- d) Continuation gaps
- 66. Which of the following types of gaps are quickest to close?
- a) Area gaps
- b) Breakaway gaps
- c) Exhaustion gaps
- d) Continuation gaps
- 67. Breakouts from a rectangle pattern occur when:
- a) Price fails at either of the bounds of the pattern
- b) Price closes outside the boundary of the pattern
- c) Price crosses the halfway point of the pattern from above
- d) Price crosses the halfway point of the pattern from below

68. Identify the pattern highlighted in the price chart:



- a) Flag
- b) Ascending triangle
- c) Descending triangle
- d) Symmetrical triangle
- 69. A descending triangle has:
- a) Sloping support and resistance lines
- b) A horizontal resistance line
- c) A horizontal support line
- d) A sloping support line
- 70. Symmetrical triangles shorter than three weeks in duration are more likely to be categorized as:
- a) Flags
- b) Wedges
- c) Pennants
- d) Consolidations
- 71. Flags and pennants always require _____ leading to them:
- a) A breakaway gap
- b) A strong advance/decline
- c) A major top/bottom formation
- d) An Intermediate top/bottom formation

- 72. In a Head & Shoulders pattern, volume is generally:
- a) Consistent throughout the pattern
- b) Light as prices approach the peak
- c) Highest on a breakout from the neckline
- d) Heaviest during the formation of the left shoulder
- 73. Which of the following would be a valid confirmation of the Head & Shoulders chart formation?
- a) Sell when the head penetrates the neckline
- b) Sell when the right shoulder penetrates the neckline
- c) Sell when the right shoulder completes a 50% retracement of the 'head' formation
- d) Sell only if the right shoulder manages a greater than 50% retracement of the 'head' formation

74	4. Which of the following chart types does not show price gaps?
a)	Bar
b)	Line
c)	Candlestick
d)	Equivolume
75	5. The chart includes the same information as that on a candlestick chart:
a)	Line
b)	OHLC
c)	Point and Figure

- 76. A candlestick formation highlighted by a horizontal line (identical opening and closing price) that replaces the real body is referred to as a:
- a) Doji
- b) Marubozu
- c) Outside up
- d) Outside down

d) Ichimoku Cloud

- 77. A breadth indicator measures:
- a) Cointegration between two issues in a market
- b) Participation of issues in a market trend
- c) Performance of issues in a market trend
- d) Momentum of a market trend

- 78. Bollinger Bands show variations above and below:
- a) An average true range of prices
- b) A simple moving average of prices
- c) An average true range of oscillator readings
- d) A simple moving average of the typical price
- 79. Which of the following can be categorized as an unbound oscillator?
- a) RSI
- b) MACD
- c) Stochastic
- d) Williams %R
- 80. The signal line in the traditional MACD indicator is:
- a) A simple moving average
- b) An exponential moving average
- c) The difference between 12 and 26-day EMA
- d) The difference between 26 and 12-day EMA
- 81. A combination of rising on-balance volume along with declining price action is suggestive of:
- a) Volatility expansion
- b) A bullish divergence
- c) Volatility compression
- d) A possible distribution period
- 82. RSI is considered to be more stable than most measures that calculate momentum because:
- a) It is ranged between 0 (zero) and 100
- b) It uses all the values of the period in its calculation
- c) It uses just the first and last values of the period in its calculation
- d) It can effectively denote overbought / oversold levels based on pre-determined thresholds
- 83. The stochastic indicator measures:
- a) The relative strength of the current price movement as it increases from 0 to 100
- b) The relative position of the closing price within a past high-low range
- c) The distance in % between the first and last values over n-days
- d) Where today's typical price fits into the recent trading range

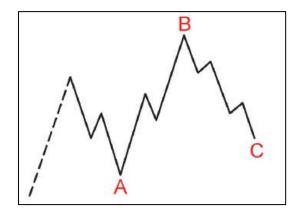
- 84. The triangle pattern with the highest throwback rate is a(n)
- a) symmetrical triangle
- b) broadening formation
- c) descending triangle
- 85. If someone says that Eastern Technical Analysis and Western Technical Analysis together augment the overall recognition of trends, what are they likely to be explaining?
- a) How Shanghai markets affect New York markets and how the reverse is also true.
- b) That Candlesticks and Bar charts have the same patterns but with different names.
- c) How different cultures work together to better understand market prices.
- d) That candlestick charts used with oscillators and other technical studies can be productive.
- 86. One commonly used type of chart that represents a blend of Eastern and Western technical analysis tools is:
- a) Ichimoku cloud chart
- b) Market profile charts
- c) Renko charts
- d) Blending candles (bull and bear)
- 87. Japanese Candlestick Charting refers to a gap as a:
- a) Line
- a) Star
- b) Tasuki
- c) Window
- 88. An engulfing pattern is considered to signal a
- a) Short-term reversal
- b) Long-term reversal
- c) Bullish continuation
- d) Bearish continuation
- 89. A gap up followed by a long upper shadow on a candle chart potentially foreshadows
- a) A bullish reversal signal
- b) A bearish reversal signal
- c) Equilibrium
- d) A pullback

- 90. According to, Gail Dudack, a major change of trading structure in recent years requires technicians to be alert to the fact that
- a) Electronic exchanges have created additional competition
- b) Dark pool trading must be accounted for
- c) High-frequency trading may destroy the reliability of chart patterns
- d) Volume can no longer be accurately defined
- 91. Of the following, which indicator is most likely to be valuable in determining when to execute a trend-following trading system?
- a) Average true range (ATR)
- b) Directional Movement Indicator (ADX)
- c) Volume weighted average price (VWAP)
- d) New Highs, New Lows index (NHNL)
- 92. Most futures contracts are
- a) Completely fungible
- b) Unreasonably high-risk instruments
- c) Highly illiquid
- d) Quoted in pips
- 93. Which of the following statements is most accurate with respect to a price-weighted average?
- a) The S&P 500 is a price-weighted average
- b) Float is taken into account when constructing price-weighted averages
- c) Stock splits are ignored when constructing a price-weighted average
- d) A high-priced stock has more influence on the average compared to a low-priced stock
- 94. Which of the following is a market-cap weighted index?
- a) S&P 500 index
- b) U.S. Dollar index
- c) NASDAQ Composite
- d) Dow Jones Industrial Average
- 95. Which of the following is a criticism of noise traders?
- a) Noise traders are not skilled, long-term investors.
- b) Noise traders lose money.
- c) Noise traders are not willing to pay differing prices for fungible assets.
- d) Noise traders are not trading on information that is true and relevant for predicting upcoming earnings of a publically traded company.

- 96. Which of the following statements is an important assumption of the Efficient Market Hypothesis?
- a) Investors as a group will act rationally
- b) Investors as a group will act irrationally
- c) Prices typically do not reflect all available information
- d) Liquidity constraints may sometimes drive prices away from their intrinsic value
- 97. Which of the following trends can be classified as the longest based on duration:
- a) Secondary trend
- b) Primary trend
- c) Intermediate trend
- d) Minor trend

98. The Elliott Wave Theory subdivides a corrective wave into subwaves: a) Two
b) Three
c) Four
d) Five
99. "Truncation" is defined as a:
a) Failure of the 3 rd wave to surpass the highs of the 1 st wave
b) Failure of the 5 th wave to surpass the highs of the 3 rd wave
c) Phenomena where the 2 nd wave slightly exceeds the lows of the 1 st wave
d) Phenomena where the 4 th wave slightly blends into the highs of the 1 st wave
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100. Which of the following is a commonly used tool by the Federal Reserve to set a target rate that is aimed at containing inflation and maximize employment?
a) Discount rate
b) Federal Funds rate
c) Open market operations
d) Bank reserve requirements
101. Throwbacks:
a) Occur after a bullish breakout
b) Occur after a bearish breakout
c) Occur only within well-defined price channels
d) Occur only within well-defined consolidation patterns
a, seem only whim wer defined consortation patterns
102. Which of the following would most likely be a continuation pattern?
a) Flag
b) Double bottom
c) Engulfing pattern
d) Head & Shoulders
103. Which of the following oscillators combines price and volume in its calculation?
a) CCI
b) RSI
c) William's %R
d) Money Flow Index

- 104. A Narrow-Range day:
- a) Is normally preceded by a parabolic price advance
- b) Is normally preceded by a strong sell-off
- c) Indicates a phase of volatility expansion
- d) Indicates a phase of volatility compression
- 105. As a continuation variation, the rising wedge pattern would appear in:
- a) An uptrend
- b) A downtrend
- c) A consolidation
- d) The right shoulder of a Head & Shoulder bottom
- 106. A _____ gap occurs at a point of clear resistance or support:
- a) Area
- b) Runaway
- c) Breakaway
- d) Exhaustion
- 107. The basic purpose of a channel line is to:
- a) Identify a trend reversal
- b) Establish basic direction
- c) Identify likely reversal points
- d) Assess the probable direction of the trend
- 108. The Elliott wave pattern highlighted below is a:

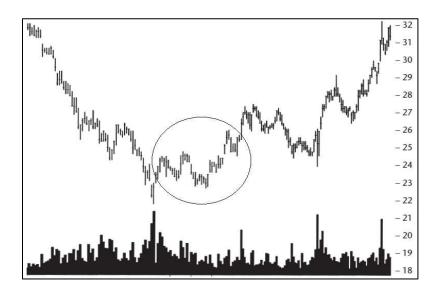


- a) Regular flat
- b) Running flat
- c) Expanded flat
- d) Contracted flat

109. A zigzag, as per the Elliott Wave Theory has a _____ combination of subwaves:

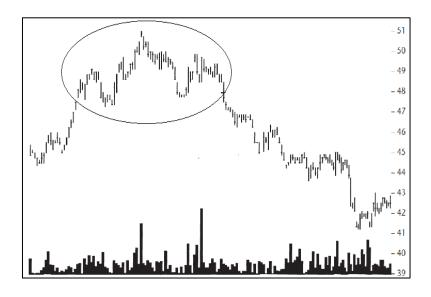
- a) 3-3-3
- b) 3-5-3
- c) 5-3-3
- d) 5-3-5

110. The chart pattern highlighted below (inside the circle) is:



- a) A descending triangle
- b) An ascending triangle
- c) A broadening top formation
- d) A broadening bottom formation

111. The chart pattern highlighted below is:



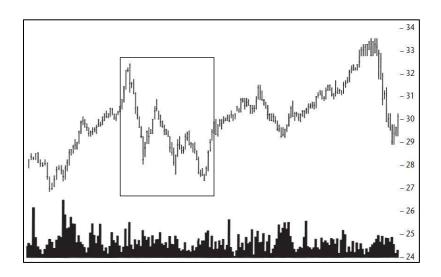
- a) An ascending triangle
- b) A Head & Shoulders top
- c) A broadening top formation
- d) A Head & Shoulders bottom

112. The chart formation highlighted below is:



- a) A double top
- b) An island top
- c) A triple bottom
- d) An island bottom

113. The chart formation highlighted (in the smaller box) below is:



- a) A double bottom
- b) A falling wedge
- c) A rounding bottom
- d) A Head & Shoulders bottom
- 114. When the lower bound is a horizontal support zone and the upper is a downward slanting trendline, it is called a/an:
- a) Ascending triangle
- b) Broadening triangle
- c) Descending triangle
- d) Symmetrical triangle
- 115. In candlestick chart construction, the opening price for a positive session is recorded:
- a) At the top of the real body
- b) At the bottom of the real body
- c) At the lowest point of the candle
- d) At the highest point of the candle
- 116. A candlestick that has an unusually long upper shadow suggests that:
- a) Buyers have lost momentum
- b) The trend may stall near-term
- c) Buyers have gained momentum
- d) The trend may reverse to the upside

117.		ivergence is the combination of _ low in an oscillator:	a low in the price at the same time
	ver, lower	_ low in an oscillator.	
•	ver, higher		
	her, lower		
_	her, higher		
118.	Which of th	ne following can be classified as	a one-day candlestick pattern?
a) Har	ami		
b) Eng	gulfing		
c) Mar	rubozu		
d) Belt	t-hold Line		
119.	The Dow T	heory uses:	
a) Low	v prices		
b) Hig	h prices		
c) Clos	sing prices		
d) Typ	pical prices		
120.	A minor hig	gh is a peak separated by	days from a higher high:
a) One	2		
b) Two)		
c) Fou	r		
d) Five	e		
======			

CMT Level I Sample Exam Answers

- 1. David, a senior analyst with a brokerage firm, decides to change his recommendation for the common stock of Pigeon Industries, Inc. from a "buy" to a "sell". This change in investment advice is mailed to all the firm's clients on Wednesday. Next day, a client calls in with a buy order for 500 shares of Pigeon Industries, Inc. In this circumstance, Johnson should:
 - c. Advise the customer of the change in recommendation before accepting the order.

This question involves Standard III (B) – Fair Dealing.

Reference: Code of Ethics and Standards of Professional Conduct

- 2. The mosaic theory holds that an analyst:
 - b. Can use material public information and nonmaterial nonpublic information in the analyst's analysis.

This question involves Standard II (A) – Material Nonpublic Information.

Reference: Code of Ethics and Standards of Professional Conduct

- 3. Bell is a portfolio manager. One of his firm's clients has told Bell that he will compensate him beyond the compensation provided by his firm on the basis of the capital appreciation of his portfolio each year. Bell should:
 - b. Obtain permission from his employer prior to accepting the compensation arrangement.

This question involves Standard IV (B) – Additional Compensation Arrangements.

Reference: Code of Ethics and Standards of Professional Conduct

- 4. Which of the following is a correct statement of a member's or candidate's duty under the Code and Standards?
 - a. In the absence of specific applicable law or other regulatory requirements, the Code and Standards govern the member's or candidate's actions.

This question involves Standard I (A) – Material Nonpublic Information.

Reference: Code of Ethics and Standards of Professional Conduct

- 5. Elizabeth is a financial analyst with XYZ Brokerage Firm. She is preparing a purchase recommendation on JNI Corporation. Which of the following situations is most likely to represent a conflict of interest for Neely that would have to be disclosed?
 - c. XYZ holds for its own account a substantial common stock position in JNI.

This question involves Standard VI (A) – Disclosure of Conflicts.

Reference: Code of Ethics and Standards of Professional Conduct

- 6. To increase the sensitivity of a 5x3 Point and Figure chart, one would:
 - b. Decrease the box size

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 23

- 7. A basic Point and Figure buy signal is triggered when:
 - c. The current column of Xs rises above the previous column of Xs by one box

- 8. In constructing a point and Figure chart, a new entry is added only when:
 - d. Price has moved equal to or more than the specified box size

- 9. Identify the Point and Figure pattern highlighted below:
 - c. Ascending Triple Top

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 23

- 10. Identify the Point and Figure pattern highlighted below:
 - c. Spread Triple Top

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 23

- 11. When the Stochastic indicator crosses below 20, it is signaling
 - d. The price is vulnerable to a reversal, but no action needs to be taken just yet.

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 15

12. Which of the following principles describes a characteristic of related cycles

a. harmonics

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 23

- 13. Which of the following formations is often called a coil?
 - d. Symmetrical Triangle

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 3

14. Bullish support lines on a 3-box reversal P & F chart are drawn at a _____ degree angle:

a. 45

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 23

15. The stock multiplication factor to adjust for a 30% stock dividend on a Point and Figure chart is: b. 1.3

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 23

- 16. Which one of the following chart types uses more than one data point to plot a particular time interval?
 - c. Candlesticks

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 10

- 17. _____ mean is the best choice when averaging ratios that can be either fractions or percentages:
 - b. Geometric

- 18. Kurtosis refers to the:
 - d. Peakedness or flatness of a distribution

19. Standard deviation is calculated by taking the square root of:

a. Variance

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 49

20. If the daily returns are constant, they can be converted to annualized risk by multiplying the daily return with the square root of:

c. 252

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 49

- 21. The Sharpe ratio is a measure of:
 - c. Performance

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 49

- 22. Seasonality is a cycle that occurs:
 - d. Yearly

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 50

23. Fungibility is:

b. Interchangeability of financial assets on identical terms

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 50

24. The cycle, along with trend and _____ comprise the three orderly components of price movement:

c. Seasonality

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 50

25. The global business cycle as identified by the Princeton Economic Institute measures:

c. 8.6 years

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 50

- 26. Which of the following cycles is the longest by duration:
 - b. Kondratieff Wave

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 50

27. Typically, the ______ year of a president's term posts the strongest returns for the market as per the Presidential Cycle:

c. Third

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 50

- 28. An effective way of detrending price data to identify cycles is to:
 - c. Divide the closing prices by a moving average of those prices

29. The New High-New Low index is calculated by:

d. Subtracting New Lows from New Highs

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 6

30. If the New High-New Low index declines while the broader market stays flat or rallies:

b. It is time to take profits on long positions

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 6

31. As per the theory of contrarian opinion, a high degree of consensus normally precedes:

b. A trend reversal

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 9

32. The Commitment of Traders report summarizes:

c. Buying and selling by commercials and large speculators

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 9

33. Which of the following statements accurately describe a support level?

c. A price level where buying is strong enough to interrupt or reverse a decline

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 31

34. A bear trap occurs when:

a. Prices recapture a violated support level after sell signals are generated

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 31

35. Serial correlation or autocorrelation means

a. There is persistence in the data.

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 49

36. The most important feature of the martingale process that makes it an appropriate model for EMH is:

a. The absence of future price predictability

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 35

37. Risk aversion refers to the assumption that investors prefer a portfolio with:

b. Higher returns but are averse to higher variance in returns

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 36

38. Beta measures:

c. How much an individual stock's return is related to the market return

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 36

39. In EMH, technical traders can be thought of as a specific type of noise trader because:

b. Technical traders are not rational traders

- 40. When sentiment indicators point to extreme optimism:
 - a. Liquidity is low

- 41. From a sentiment perspective:
 - b. Liquidity and psychology are inversely related

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 40

- 42. For short-sellers of a security, market risk refers to the possibility of:
 - b. An increase in value

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 16

- 43. Slippage is normally attributed to:
 - d. Liquidity risk

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 16

- 44. Political risk refers to:
 - d. The potential for legislative actions to deter companies from reaching their goals Reference: MTA, *CMT Level I: An Introduction to Technical Analysis*, Chapter 16
- 45. Yield refers to the projected annual return on a bond based on its:
 - a. Current market price

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 17

- 46. Treasury Inflation-Protected Securities (TIPS) are bonds whose ______ is adjusted based on the level on inflation (change in consumer prices):
 - a. Principle

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 17

- 47. An inverted yield curve has historically pointed toward:
 - d. Economic slowdowns and recessions

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 17

- 48. Treasury-bill returns come from:
 - a. Price changes

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 17

- 49. Which of the following bonds exceed rating thresholds set by S&P, Moody's and Fitch?
 - c. Investment-grade bonds

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 18

- 50. Debentures are a type of:
 - c. Unsecured loans

- 51. Companies can borrow for two years by selling:
 - d. Medium-term notes

- 52. In spot markets, commodities such as gold are sold for:
 - b. Immediate delivery

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 19

53. Which of the following commodities also acts as a barometer of an economy's prospects? c. Copper

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 19

- 54. The benchmark grade of U.S. crude oil is commonly called:
 - c. WTI

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 19

- 55. Which of the following is a trade-weighted geometric index?
 - b. U.S. dollar index

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 19

- 56. The CBOE Volatility Index (VIX) is a measure of:
 - a. 30-day implied volatility as priced by the S&P 500 index option market

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 48

- 57. Increased buying of options by market participants leads to:
 - c. An increase in implied volatility

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 47

58. A VIX reading of 20 implies market expectations of a _____ move over the next 30 days: b. 5.77%

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 48

- 59. Charles Dow's first major contribution to the field of technical analysis is:
 - c. The development and use of indices

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 2

- 60. The basic five-wave sequence in the Elliott Wave Theory is termed as:
 - c. Motive wave

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 33

- 61. As per the Elliott Wave Theory, in an impulse wave:
 - d. Wave 3 can never be the shortest motive subwave, but may not be the longest.

62. Which of the following can be classified as a motive wave when analyzing charts as per Elliott's Wave Theory? a. Diagonal Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 33 63. The Elliott Wave pattern highlighted below is a/an: d. Ending Diagonal Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 34 64. Which of the following is an appropriate scale to analyze long-term price movements with considerable volatility on a price chart? d. Logarithmic Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 42 65. Gaps that appear midway in a price trend are: d. Continuation gaps Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 43 66. Which of the following types of gaps are quickest to close? a. Area gaps Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 43 67. Breakouts from a rectangle pattern occur when: b. Price closes outside the boundary of the pattern Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 44 68. Identify the pattern highlighted in the price chart: b. Ascending triangle Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 44 69. A descending triangle has: c. A horizontal support line Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 44 70. Symmetrical triangles shorter than three weeks in duration are more likely to be categorized as: c. Pennants Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 44 71. Flags and pennants always require ______ leading to them:

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 44

a. A strong advance/decline

- 72. In a Head & Shoulders bottom formation, volume is generally:
 - d. Heaviest during the formation of the left shoulder.

73. Which of the following would be a valid confirmation of the Head & Shoulders chart formation?

b. Sell when the right shoulder penetrates the neckline

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 46

74. Which of the following chart types does not show price gaps?

b. Line

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 10

75. The _____ chart includes the same information as that on a candlestick chart::

b. OHLC

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 10

76. A candlestick formation highlighted by a horizontal line (identical opening and closing price) that replaces the real body is referred to as a:

a. Doji

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 10

- 77. A breadth indicator measures:
 - b. Participation of issues in a market trend

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 11

- 78. Bollinger Bands show variations above and below:
 - b. A simple moving average of prices

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 11

79. Which of the following can be categorized as an unbound oscillator?

b. MACD

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 13

- 80. The signal line in the traditional MACD indicator is:
 - a. A simple moving average

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 13

81. A combination of rising on-balance volume along with declining price action is suggestive of:

b. A bullish divergence

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 13

82. RSI is considered to be a more stable than most measures that calculate momentum because:

b. It uses all the values of the period in its calculation

83. The stochastic indicator measures:

b. The relative position of the closing price within a past high-low range Reference: MTA, *CMT Level I: An Introduction to Technical Analysis*, Chapter 14

84. The triangle pattern with the highest throwback rate is a(n)

c. ascending triangle

Ref: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 43

- 85. If someone says that Eastern Technical Analysis and Western Technical Analysis together augment the overall recognition of trends, what are they likely to be explaining?
 - d. That candlestick charts used with oscillators and other technical studies can be productive

Ref: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 12

- 86. One commonly used type of chart that represents a blend of Eastern and Western technical analysis tools is:
 - a. Ichimoku cloud chart

Ref: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 13

- 87. Japanese candlestick charting refers to a gap as a:
 - d. Window

Ref: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 43

- 88. An engulfing pattern is considered to signal a
 - a. Short-term Reversal

Ref: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 14

89. A gap up followed by a long upper shadow on a candle chart potentially foreshadows:

b. a bearish reversal signal

Ref: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 10

- 90. According to past MTA president, Gail Dudack, a major change of trading structure in recent years requires technicians to be alert to the fact that
 - d. Volume can no longer be accurately defined

Ref: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 3

- 91. Of the following, which indicator is most likely to be valuable in determining when to execute a trend-following trading system
 - b. Directional Movement Indicator (ADX)

- 92. Most futures contracts are
 - a. Completely fungible

- 93. Which of the following statements is most accurate with respect to a price-weighted average?
 - d. A high-priced stock has more influence on the average compared to a low-priced stock Reference: MTA, *CMT Level I: An Introduction to Technical Analysis*, Chapter 20
- 94. Which of the following is a market-cap weighted index?
 - c. NASDAQ Composite

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 20

- 95. Which of the following is a common criticism of technical analysis?
 - d) Noise traders are not trading on information that is true and relevant for predicting upcoming earnings of a publically traded company.

Ref: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 34

- 96. Which of the following statements is an important assumption of the Efficient Market Hypothesis?
 - a. Investors as a group will act rationally

Ref: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 34

- 97. Which of the following trends can be classified as the longest based on duration?
 - a. Primary trend

Ref: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 44

- 98. The Elliott Wave Theory subdivides a corrective wave into _____ subwaves:
 - b. Three

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 33

- 99. "Truncation" is defined as a:
 - b. Failure of the 5th wave to surpass the highs of the 3rd wave

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 33

- 100. Which of the following is a commonly used tool by the Federal Reserve to set a target rate that is aimed at containing inflation and maximize employment?
 - c. Open market operations

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 18

101. Throwbacks:

a. Occur after a bullish breakout

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 43

102. Which of the following would most likely be a continuation pattern? a. Flag

Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 44

103. Which of the following oscillators combines price and volume in its calculation? d. Money Flow Index

104. A Narrow-Range day: d. Indicates a phase of volatility compression Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 13 105. As a continuation variation, the rising wedge pattern would appear in: b. A downtrend Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 14 106. A _____ gap occurs at a point of clear resistance or support: c. Breakaway Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 11 107. The basic purpose of a channel line is to: c. Identify likely reversal points Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 11 108. The Elliott wave pattern highlighted below is a: b. Running flat Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 33 109. A zigzag, as per the Elliott Wave Theory has a _____ combination of subwaves. d. 5-3-5 Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 33 110. The chart pattern highlighted below (inside the circle) is: d. A broadening bottom formation Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 42 111. The chart pattern highlighted below (inside the circle) is: b. A Head & Shoulders top Reference: MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 12 112. The chart pattern highlighted below is: d. An island bottom Reference: (Implied in) MTA, CMT Level I: An Introduction to Technical Analysis, Chapter 39

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