Annexure 5

CMT- Chartered Market Technician (CMT)

is a designation for technical analysts awarded by the CMT Association. Those who earn a CMT demonstrate mastery of investment risk in portfolio management, including quantitative approaches to market research and rules-based trading system design and testing.

CMT

Annexure 6

The CMT Program consists of three levels: Level I and Level II are entirely multiple-choice exams while Level III is short answer and multiple-choice question format.

According to the CMT Association, the objectives of the program are threefold:

- **To help candidates master a professional body of knowledge and develop analytical skills.**
- **To promote and encourage the highest standards of education within the industry.**
- **To earn Chartered Market Technician (CMT) designation you must successfully complete the CMT Program, have the Member Status, and agree to abide by the CMT Code of Ethics.**

CMT Exam Structure & Weighting

Here's a general breakdown of the focus for each part of the CMT® exam:

- **Level I focuses on a basic knowledge of the terminology and analytical tools used in technical analysis.**
- **Level II measures competency in the application of concepts, theory, and techniques covered by the required readings.**
- **Level III tests the ability to integrate the concepts identified in Level I with the practical application covered in Level II.**

Here's the weighting for each topic or concept for each level of the CMT® exam:

	Level I	Level II	Level III
Chart & Pattern Analysis	23%	15%	
Confirmation	3%	6%	
Cycles	5%	3%	
Selection & Decision Making	13%	10%	
System Testing	5%	10%	
Statistical Analysis	6%	7%	
Ethics	3%	3%	5%
Theory & History	9%	5%	
Markets	5%		
Market Indicators	7%	8%	
Chart Construction	5%	3%	
Trend Analysis	16%	15%	
Risk Management		15%	21%
Portfolio Management			18%
Behavioural Finance			10%
Volatility Analysis			7%
Classic Methods			21%
Asset Relationships			18%

Chartered Market Technician (CMT) Program

Level 1 -

The CMT 1 candidate is responsible for the material on a definition level. The candidate must understand the terminology used in these readings, be able to describe the concepts discussed in these readings and be able to examine trends.

The CMT Level 1 Exam measures basic, entry-level competence. The CMT 1 candidate should have a working knowledge of the basic tools of the technician.

Exam time length: 2 hours. Exam format: MULTIPLE Choice Immediate scoring will not be available on any exams for this administration.

CMT Level 1 Exam tests the candidate's knowledge of six basic areas of technical analysis:

1) Terminology of technical analysis

2) Methods of charting

3) Determination of price trends/basics of pattern recognition

4) Establishing price targets

5) Equity market analysis

6) Applying technical analysis to bonds, currencies, futures and options

Level II

The CMT Level II exam

measures the candidates' competency in

the

application

of concepts, theory, and techniques covered by the required readings. CMT Level II candidates must demonstrate their ability to apply concepts identified in their Level I study to relevant conditions or scenarios.

Exam time length

: 4 hours, 15 minutes

Exam format

: Multiple Choice The curriculum is organized into exam specific knowledge domains that provide a framework for recognizing and implementing investment/trading decisions. CMT Level II

exam tests the candidate's

knowledge in 12 domains:

1.Theory and History

Behavioral finance

Identify the correct application of behavioral finance theoryRecognize evidence of cognitive errors or behavioral biasesinvestment selectionContrast the tenets of Behavioral Finance principles withEfficient Market Hypothesis

2.Market Indicators

breadth indicators (e.g., A/D, up/down volume)

Behavioural finance

Identify the correct application of behavioural finance theory Recognize evidence of cognitive errors or behavioural biases investment selection Contrast the tenets of Behavioural Finance principles with Efficient Market Hypothesis

3.Construction

Interpret volume data Analyse the behaviour of a given volume-weighted indicator

4.Trend Analysis

Select valid trend lines Interpret the significance of trend line breaks

multiple time frame analysis

Compare trend signals over multiple time frames Identify evidence of changing trends in multiple time frames

breakouts (from channels or chart patterns)

Analyse breakout signals for use in forecasting Recognize evidence for improving confidence in breakout signals

moving averages

Contrast the use of various moving averages Analyse changes in moving average behaviour Interpret signals given by various moving averages

trend strength indicators (e.g., DMI, ADX, etc.)

Determine the strength of a trend based on indicator data Select the correct definition of trend strength indicators

5.Chart and Pattern Analysis

gap analysis

Recognize gap signals Evaluate the strength of various gap signals Classify gap types Identify support and resistance on given charts

support and resistance

Evaluate support and resistance evidence from data and charts for use in forecasts

6.Confirmation

oscillators and divergence

Identify confirming divergence signals within oscillators

sector rotation

Recognize confirmation signals given from sector rotation data

Intermarket signals

Recognize confirmation signals inferred from inter market analysis

7.Cycles

seasonal cycles

Identify potential opportunity and risk based on seasonal cycle information Define methods for applying cycle studies

8.Selection and Decision

uncorrelated assets

Determine appropriate asset selections based on correlation data

relative strength

Determine appropriate asset selections based on relative strength

forecasting techniques (pattern and trend recognition)

Determine appropriate asset selections based on trend and pattern forecasts

9.System Testing

algorithmic development

Select correct procedures for proper development of algorithms Identify valid data output for algorithmic system testing

optimizing entry and exit rules (filtering)

Determine proper optimizing and filtering procedures forsystem testing

equity curve analysis

Identify valid system adjustments based on equity curve analysis

position size rules (e.g., Tharp's methods, Kelley criterion, Optimal f)

Recognize the influence of position size rules

profit measures (e.g., profit factor, outlier-adjusted profit to loss, percentage of winning trades, annualized rate of return, payoff ratio, length of average winning trade, efficiency factor)

Distinguish between different profit measures (profit factor, outlier-adjusted profit to loss ratio and others)

10.Risk Management

absolute and relative risk (i.e. total risk v.risk compared to benchmark)

Determine differences in risk measures (absolute vs. relative, etc.)

risk modelling

Select appropriate risk modelling steps

value at risk

Identify appropriate use of Value at Risk (VaR)

volatility risk

Identify effective measures of volatility risk Identify volatility risk from given charts and data

liquidity risk

Select appropriate responses to liquidity risk

diversification

Select appropriate diversification strategies to mitigate risk

stops v. hedging

leverage risk

Explain leverage risk for various asset classes

portfolio risk management (e.g., market neutral, relative strength)

Determine appropriate rules useful in portfolio risk management

risk measures (e.g., maximum cumulative drawdown, net profit to drawdown, maximum consecutive losses, largest losses, longest flat time, time to recovery, maximum + and - excursions)

Select appropriate risk measures for various objectives

risk-based performance measures

Define various risk-based performance measures (maximum cumulative drawdown, net profit to drawdown, maximum consecutive losses, largest losses, longest flat time, time to recovery, maximum favourable and adverse excursions

11.Statistical Analysis

inferential statistics (e.g., correlation, regression, t-test)

Identify proper application of inferential statistics methods in system development and testing Determine results from an analysis of correlation data Interpret results from regression or t-test data Analyse data from tests using inferential statistics

12.Ethics

Code of Ethics and Standards of Professional Conduct

Chartered Market Technician | Level III

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Level III

Congratulations on qualifying to take the CMT Level III exam.

This exam is designed to test the candidates' ability to

integrate

their understanding of concepts identified in Level I studies with the practical application learned in Level II studies. The Level III exam requires candidates to

implement

critical analysis to arrive at well-supported recommendations in an investing/trading context. This exam provides an opportunity for you to show, in real time, that you know how to properly apply technical analysis concepts to produce excellent analysis as a financial professional A successful Level III candidate demonstrates they are ready to apply technical analysis in a variety of roles in an institutional setting. The CMT Level III exam uses a combination of multiple choice questions and short-answer format questions. Price information, data, and charts will be displayed on screen during the test, and a printed chart packet will also be provided. A small portion of the exam is dedicated to the topic of ethics. All candidates must successfully answer two-thirds of this block of questions on the exam.

Exam time length

: 4 hours, 15 minutes

Exam format

: Short Answer The curriculum is organized into exam specific knowledge domains that provide a framework for recognizing and implementing investment/trading decisions. CMT Level III e

Exam tests the candidate's

knowledge in seven domains:

1.Risk Management

2.Asset Relationships

3.Portfolio Management

4.Classical Methods

5.Behavioral Finance

6.Volatility Analysis

7 Ethics

CODE OF ETHICS

Amended December 2004 the Market Technicians Association has established ethical standards of professional conduct which every Member and Affiliate shall maintain. The Ethical Standards set forth in 1 through 9 serve as a guide of professional responsibility and as a benchmark for ethical judgment.

1. Members and Affiliates shall maintain at all times the highest standards of professional competence, integrity and judgment. Said standards should be maintained, and members and affiliates should act with dignity and in an ethical manner when dealing with the public, clients, prospects, employees, fellow Members and Affiliates and business associates. This ethical standard requires strict compliance with the applicable laws and regulations of any government, governmental agency and regulatory organization which has jurisdiction over the professional activities of Members

and Affiliates. This same ethical standard requires that Members and Affiliates abide by the Constitution and By-Laws of the Association, and all rules promulgated by its Board of Directors. Members and Affiliates shall not unduly exploit their relationship with the Association for commercial purposes, nor use, or permit others to use, Association mailing lists for other than Association purposes.

2. Members and Affiliates shall not publish or make statements which they know or have reason to believe are inaccurate or misleading. Members and Affiliates shall avoid leading others to believe that their technically-derived views of future security price behaviour reflect foreknowledge rather than estimates and projections subject to re-examination and, as events may dictate, to change.

3. Members and Affiliates shall not publish or make statements concerning the technical position of a security, a market or any of its components or aspects unless such statements are reasonable and consistent in light of the available evidence and of the accumulated knowledge in the field of financial technical analysis. New methods of technical analysis and modifications of existing concepts and techniques shall be fully documented as to procedure and rationale. Proprietary methods shall not be infringed, but this standard shall be a guide in the creation of proprietary products.

4. Members and Affiliates shall not publish or make statements which indefensibly disparage and discredit the analytical work of others.

5. Members and Affiliates shall not seek, disseminate or act on the basis of material, non-public (inside)information, if to do so would violate the laws and regulations of any government, governmental agency or regulatory organization relating to the use of inside information.

6. Members and Affiliates shall keep in confidence knowledge concerning the lawful private affairs of both past and present clients, employers, and employer's clients

7. When a Member or Affiliate recommends that a security ought to be bought, sold or held, adequate opportunity to act on such a recommendation shall be given to the Member's or Affiliate's clients, employer, and the employer's clients before acting on behalf of either the Member's or Affiliate's own account or the accounts of immediate family members.

8. Members and Affiliates shall not copy or deliberately use substantially the same language or analysis contained in reports, studies or writings prepared by any author unless permission to do so is received, in advance, from the author. In the event the original author is deceased, or is otherwise unavailable to grant such permission, Members and Affiliates must ensure that the original author receives prominent and adequate credit for the original work.

9. Members who have earned the CMT designation shall use CMT after their name whenever and wherever appropriate.

Certified Market Technician: Job Description

A certified market technician's job is to analyse investments and make predictions about future performance, according to the Smart Asset website. A chartered market technician (CMT) studies the intrinsic value of different investments, looks for patterns in price movements and identifies the effect on market psychology. CMTs also understand risk management and how the data they've gathered affects risk.

Putting all their technical insights together, a CMT makes recommendations on where their employer or client should place their money. This technical analysis affects the work of portfolio managers, hedge fund managers, investment strategists and heads of research departments.

Who Employs CMT Charterholders?

As a CMT, you will have the skills to work in a variety of CMT jobs and roles in the finance industry. CMTs typically work for stock brokerage firms, investment banks, mutual fund companies, pension fund management companies, and hedge funds. Some of the common CMT career profiles include:

- **Trading Analyst**
- **Hedge Fund Analyst**
- **Portfolio Risk Manager**
- **Investment Manager.**

Build your career

Be wise

Be rich

Thank you

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