

Content Specification Outlines for the Certified Management Accountant (CMA) Examinations

The content specification outlines presented below represent the body of knowledge that will be covered on the CMA examinations. The outlines may be changed in the future when new subject matter becomes part of the common body of knowledge.

Candidates for the CMA designation are required to take Parts 1, 2, 3, and 4. Part 4, Business Applications, may only be taken after successful completion of Parts 1, 2, and 3.

Candidates are responsible for being informed on the most recent developments in the areas covered in the outlines. This includes understanding of public pronouncements issued by accounting organizations as well as being up-to-date on recent developments reported in current accounting, financial and business periodicals.

The content specification outlines serve several purposes. The outlines are intended to:

- Establish the foundation from which each examination will be developed.
- Provide a basis for consistent coverage on each examination.
- Communicate to interested parties more detail as to the content of each examination part.
- Assist candidates in their preparation for each examination.
- Provide information to those who offer courses designed to aid candidates in preparing for the examinations.

Important additional information about the content specification outlines and the examinations is listed below.

1. The coverage percentage given for each major topic within each examination part represents the relative weight given to that topic in an examination part. The number of questions presented in each major topic area approximates this percentage.
2. Each examination will sample from the subject areas contained within each major topic area to meet the relative weight specifications. No relative weights have been assigned to the subject areas within each major topic. No inference should be made from the order in which the subject areas are listed or from the number of subject areas as to the relative weight or importance of any of the subjects.

3. Each major topic within each examination part has been assigned a coverage level designating the depth and breadth of topic coverage, ranging from an introductory knowledge of a subject area (Level A) to a thorough understanding of and ability to apply the essentials of a subject area (Level C). Detailed explanations of the coverage levels and the skills expected of candidates are presented below.
4. The topics for Parts 1, 2, and 3 have been selected to minimize the overlapping of subject areas among the examination parts. The topics within an examination part and the subject areas within topics may be combined in individual questions. Questions within Parts 1, 2, and 3 will only cover subject areas outlined in the respective content specifications. The exception is Part 4, Business Applications, which may include any of the subject areas tested in Parts 1, 2, and 3.
5. With regard to Federal income taxation issues, candidates will be expected to understand the impact of income taxes when reporting and analyzing financial results. In addition, the tax code provisions that impact decisions (e.g., depreciation, interest, etc.) will be tested.
6. Candidates for the CMA designation are expected to have a minimum level of business knowledge that transcends all examination parts. This minimum level would include knowledge of basic financial statements, time value of money concepts, and elementary statistics.
7. Parts 1, 2, and 3 are 100% objective and consist of carefully constructed multiple-choice questions that test all levels of cognitive skills. Parts 1 and 3 are three-hour exams and contain 110 questions each. Part 2 is a four-hour exam and has 140 questions. A small number of the questions on each exam are being validated for future use and will not count in the final score.
8. Part 4, Business Applications, consists of several essay questions and problems that are delivered in a computer-based format. Both written and quantitative responses will be required. Candidates will be expected to present written answers that are responsive to the question asked, presented in a logical manner, and demonstrate an appropriate understanding of the subject matter. It should be noted that candidates are expected to have working knowledge in the use of word processing and electronic spreadsheets.
9. Ethical issues and considerations will be tested on Part 4, Business Applications. At least one question in this part will be devoted to an ethical situation presented in a business-oriented context. Candidates will be expected to evaluate the issues involved and make recommendations for the resolution of the situation.

In order to more clearly define the topical knowledge required by a candidate, varying levels of coverage for the treatment of major topics of the content specification outlines have been identified and defined. The cognitive skills that a successful candidate should possess and that should be tested on the examinations can be defined as follows:

Knowledge: Ability to remember previously learned material such as specific facts, criteria, techniques, principles, and procedures (i.e., identify, define, list).

Comprehension: Ability to grasp and interpret the meaning of material (i.e., classify, explain, distinguish between).

Application: Ability to use learned material in new and concrete situations (i.e., demonstrate, predict, solve, modify, relate).

Analysis: Ability to break down material into its component parts so that its organizational structure can be understood; ability to recognize causal relationships, discriminate between behaviors, and identify elements that are relevant to the validation of a judgment (i.e., differentiate, estimate, order).

Synthesis: Ability to put parts together to form a new whole or proposed set of operations; ability to relate ideas and formulate hypotheses (i.e. combine, formulate, revise).

Evaluation: Ability to judge the value of material for a given purpose on the basis of consistency, logical accuracy, and comparison to standards; ability to appraise judgments involved in the selection of a course of action (i.e., criticize, justify, conclude).

The three levels of coverage can be defined as follows:

Level A: Requiring the skill levels of knowledge and comprehension.

Level B: Requiring the skill levels of knowledge, comprehension, application, and analysis.

Level C: Requiring all six skill levels, knowledge, comprehension, application, analysis, synthesis, and evaluation.

The levels of coverage as they apply to each of the major topics of the Content Specification Outlines are shown on the following pages with each topic listing. The levels represent the manner in which topic areas are to be treated and represent ceilings, i.e., a topic area designated as Level C may contain requirements at the “A,” “B,” or “C” level, but a topic designated as Level B will not contain requirements at the “C” level.

CMA Content Specification Overview

Part 1 Business Analysis (3 hours – 110 questions)

Business Economics	25%	Level B
Global Business	20%	Level B
Internal Controls	15%	Level A
Quantitative Methods	15%	Level B
Financial Statement Analysis	25%	Level B

Part 2 Management Accounting and Reporting (4 hours – 140 questions)

Budget Preparation	15%	Level C
Cost Management	25%	Level C
Information Management	15%	Level A
Performance Measurement	20%	Level C
External Financial Reporting	25%	Level B

Part 3 Strategic Management (3 hours – 110 questions)

Strategic Planning	15%	Level B
Strategic Marketing	15%	Level A
Corporate Finance	25%	Level B
Decision Analysis	25%	Level C
Investment Decisions	20%	Level C

Part 4 Business Applications (Level C) (3 hours)

All topics from Parts 1, 2, and 3 plus:

Organization Management
Organization Communication
Behavioral Issues
Ethical Considerations

**Content Specification Outlines for the
Certified Management Accountant (CMA)
Examinations**

Part 1 - Business Analysis

A. Business Economics (25% - Level B)

1. Factors affecting the individual firm

- a. The laws of supply and demand
- b. Elasticity of demand and elasticity of supply
- c. Government intervention in market operations
- d. U.S. antitrust policies

2. Consumption of goods

- a. Marginal utility theory
- b. Indifference curve analysis

3. Production cost functions

- a. Economic costs
- b. Economic profits
- c. Production costs in the short run
- d. Production costs in the long run
- e. Economies and diseconomies of scale

4. Market structures and pricing

- a. Pure competition
- b. Monopoly
- c. Monopolistic competition
- d. Oligopoly
- e. Effects of boycotts and cartels on prices and output

5. The economy as a system of markets

- a. Production and demand for economic resources
- b. The labor market

6. Issues in Macroeconomics

- a. Inflation
- b. Employment and unemployment
- c. Economic growth

7. Domestic Output, National Income, and Price Levels

- a. Gross domestic product
- b. Other national accounts
- c. Price levels

8. *Business cycles*

- a. Nature of business cycles
- b. Terminology used to explain business cycles
- c. Reasons for fluctuations
- d. Leading economic indicators

9. *Fiscal policy*

- a. Theory of fiscal policy
- b. Tools of fiscal policy
- c. Taxation policies

10. *Money and monetary policy*

- a. Nature of money
- b. Creation of money
- c. Money supply and the demand for money
- d. Relationship between money and national income
- e. The Federal Reserve Board
- f. Instruments and objectives of monetary policy

B. *Global Business (20% - Level B)*

1. *Global trade*

- a. Trade terminology
- b. Comparative advantage in trade
- c. Free trade
- d. Tariffs
- e. Non-tariff trade barriers
- f. International agreements on trade and tariffs

2. *Foreign exchange*

- a. Balance of payments
- b. Trade deficits and surpluses
- c. Fixed, flexible and floating exchange rates

3. *Other global topics*

- a. World Bank and International Monetary Fund
- b. International capital investments
- c. Financing international trade
- d. Transfer pricing
- e. Legal and ethical issues in global business

C. Internal Controls (15% - Level A)

1. Risk assessment and controls

- a. Internal control structure and management philosophy
- b. Internal control policies for safeguarding and assurance
- c. Internal control risk
- d. U.S. Foreign Corrupt Practices Act internal control requirements

2. Internal auditing

- a. Responsibility and authority of the internal audit function
- b. Types of audits conducted by internal auditors
- c. Internal audit assistance provided to management

3. Systems controls and security measures

- a. General accounting system controls
- b. Application and transaction controls
- c. Network controls
- d. Flowcharting to assess controls
- e. Backup controls
- f. Disaster recovery procedures

D. Quantitative Methods (15% - Level B)

1. Forecasting analysis

- a. Regression analysis
- b. Learning curve analysis
- c. Exponential smoothing
- d. Time series analysis

2. Linear programming

- a. Scarce resource considerations
- b. Capacity constraints

3. Network analysis

- a. Critical Path Method (CPM)
- b. Program Evaluation Review Technique (PERT)

4. Probability concepts

- a. Probability distribution tables
- b. Expected value

5. Decision tree analysis

- a. Assumptions of decision tree analysis
- b. Estimating cash flow and probability values

6. Other quantitative techniques

- a. Sensitivity analysis
- b. Simulation
- c. Queueing theory
- d. Markov process

E. Financial Statement Analysis (25% - Level B)

1. Development of accounting standards

- a. Due process in developing U.S. accounting standards
- b. Qualitative characteristics of accounting information
- c. Role of the SEC in U.S. standard setting
- d. User groups that influence accounting standards
- e. Types of pronouncements issued
- f. International Accounting Standards Board

2. Financial statement assurance

- a. Auditor and management responsibilities
- b. Audit reports

3. Short-term liquidity

- a. Working capital analysis
- b. Operating activity analysis
- c. Other ratios and liquidity

4. Capital structure and solvency

- a. Capital structure analysis
- b. Solvency analysis
- c. Asset-based measures
- d. Earnings coverage
- e. Other ratios and solvency measures

5. Return on invested capital

- a. Components of return on invested capital
- b. Return on assets
- c. Return on common equity
- d. Other measures of return and capital growth

6. Profitability analysis

- a. Income measurement analysis
- b. Revenue analysis
- c. Cost of sales analysis
- d. Expense analysis
- e. Variation analysis
- f. Other ratios and profitability measures

7. ***Earnings-based analysis***
 - a. Earnings quality
 - b. Earnings persistence
 - c. Earnings-based valuation
 - d. Earnings power and forecasting
 - e. Other ratios and earnings measures

8. ***Other analytical issues***
 - a. Common-size statements
 - b. International considerations
 - c. Effects of changing prices and inflation
 - d. Limitations of ratio analysis
 - e. Accounting versus economic profit/value
 - f. Market value versus book value
 - g. Non-financial considerations

Part 2 - Management Accounting and Reporting

A. Budget Preparation (15% - Level C)

1. *Budgeting concepts*

- a. Operations and performance goals
- b. Characteristics of a successful budget process
- c. Resource allocation
- d. Other budgeting concepts

2. *Budget systems*

- a. Annual business plans (master budgets)
- b. Project budgeting
- c. Activity-based budgeting
- d. Zero-based budgeting
- e. Continuous (rolling) budgets
- f. Kaizen budgeting
- g. Flexible budgeting

3. *Annual profit plan and supporting schedules*

- a. Operational budgets
- b. Financial budgets
- c. Capital budgets
- d. Pro forma financial statements

B. Cost Management (25% - Level C)

1. *Terminology*

- a. Product versus period cost
- b. Manufacturing versus non-manufacturing
- c. Direct versus indirect
- d. Fixed versus variable

2. *Measurement concepts*

- a. Cost behavior and cost objects
- b. Actual/normal/standard costs
- c. Absorption (full) and variable (direct) costing
- d. Joint product and by-product costing

3. *Accumulation systems*

- a. Job order costing
- b. Process costing
- c. Activity-based costing
- d. Life-cycle costing
- e. Other costing methods

4. Overhead costs

- a. Fixed and variable overhead expenses
- b. Plant-wide versus departmental overhead
- c. Determination of allocation base
- d. Allocation of service department costs

C. Information Management (15% - Level A)

1. Nature and purpose of an information system

- a. Business information systems
- b. Transaction processing systems
- c. Management information systems

2. Systems development and design

- a. Systems development life cycle
- b. Cost benefit analysis

3. Technology of information systems

- a. Data communications, networks, and client/server systems
- b. Database management systems
- c. Decision support systems
- d. Artificial intelligence and expert systems
- e. Spreadsheets
- f. Internet and intranet

4. Electronic commerce

- a. Electronic data interchange
- b. Business-to-business
- c. Other e-commerce technologies

5. Integrated enterprise-wide data model

- a. Enterprise resource planning (ERP) systems
- b. Data warehousing and data mining

D. Performance Measurement (20% - Level C)

1. Cost and variance measures

- a. Comparison of actual to planned results
- b. Use of flexible budgets to analyze performance
- c. Management by exception
- d. Use of standard cost systems
- e. Analysis of variation from standard cost expectations

2. Responsibility centers and reporting segments

- a. Types of responsibility centers
- b. Transfer pricing models
- c. Reporting of organizational segments

3. *Financial measures*

- a. Product profitability analysis
- b. Business unit profitability analysis
- c. Customer profitability analysis
- d. Return on investment
- e. Residual income
- f. Economic value added
- g. Market value added
- h. Investment base issues
- i. Cash flow return on investment
- j. Effect of international operations

4. *Balanced scorecard*

- a. Critical success factors
- b. Financial measures
- c. Customer satisfaction measures
- d. Internal business process measures
- e. Innovation and learning measures
- f. Effective use of a balanced scorecard

5. *Quality considerations*

- a. Total quality management concepts and techniques
- b. Techniques to analyze quality problems
- c. Relationship between quality and productivity
- d. Cost of quality analysis
- e. Cost of design quality

E. *External Financial Reporting (25%-Level B)*

1. *Objectives of external financial reporting*

- a. Information on resources and obligations
- b. Comprehensive income information
- c. Cash flow information

2. *Financial accounting fundamentals*

- a. Accounting assumptions and conventions
- b. Recognition and measurement concepts
- c. Financial statement elements
- d. Special topics

3. *Financial statements and statement users*

- a. Statement of Cash Flow
- b. Statement of Financial Position (balance sheet)
- c. Statement of Earnings (income statement)
- d. Users of financial statements
- e. Needs of external users

4. Recognition, measurement, valuation, and disclosure

- a. Cash and marketable securities
- b. Accounts receivable
- c. Inventory
- d. Investments
- e. Property, plant, and equipment
- f. Intangibles
- g. Current liabilities
- h. Long-term liabilities and bonds payable
- i. Equity transactions and earnings per share
- j. Revenues
- k. Expenses
- l. Comprehensive income
- m. Segment reporting
- n. Multinational considerations

5. The SEC and its reporting requirements

- a. Acts establishing the SEC and its power
- b. SEC reporting requirements for public companies
- c. SEC disclosure requirements for public companies
- d. Provisions of Sarbanes-Oxley legislation

6. The annual report

- a. Audit services related to financial reporting
- b. Management's responsibility for financial statements
- c. Role of the audit committee/Board of directors
- d. Independent auditor's report
- e. Other components of the annual report

Part 3 - Strategic Management

A. Strategic Planning (15% - Level B)

1. *Strategic and tactical planning*

- a. Analysis of external factors affecting strategy
- b. Analysis of internal factors affecting strategy
- c. Long-term mission and goals
- d. Alignment of tactics with long-term strategic goals
- e. Characteristics of successful strategic/tactical planning
- f. Contingency planning

2. *Manufacturing paradigms*

- a. Just-in time manufacturing
- b. Material requirements planning (MRP)
- c. Theory of constraints and throughput costing
- d. Capacity management and analysis
- e. Other production management theories

3. *Business process performance*

- a. Value chain analysis
- b. Value-added concepts
- c. Process analysis
- d. Benchmarking
- e. Activity-based management
- f. Continuous improvement (kaizen) concepts
- g. Best practice analysis

B. Strategic Marketing (15% - Level A)

1. *Strategic role within the firm*

- a. Link between strategic planning and the marketing process
- b. SWOT analysis
- c. Designing the business portfolio

2. *Managing marketing information*

- a. Developing marketing information
- b. Analyzing marketing information

3. *Market segmentation, targeting, and positioning*

- a. Market segmentation
- b. Market targeting
- c. Selecting a positioning strategy

4. *Managing products and services*

- a. Product attributes and branding
- b. Product line and product mix decisions
- c. Product development
- d. Product life-cycle
- e. Marketing strategies for service firms

5. *Pricing strategy*

- a. Internal and external factors
- b. Pricing approaches
- c. New product pricing strategies
- d. Product-mix pricing strategies

6. *Promotional mix and distribution strategy*

- a. Advertising, sales promotion, and public relations
- b. Personal selling and direct marketing
- c. Setting the overall marketing communications mix
- d. Distribution channels

C. Corporate Finance (25% - Level B)

1. *Risk and return*

- a. Calculating return
- b. Types of risk
- c. Relationship between risk and return
- d. Risk and return in a portfolio context
- e. Diversification
- f. Capital asset pricing model (CAPM)

2. *Financial instruments*

- a. Bonds
- b. Common stock
- c. Preferred stock
- d. Derivatives
- e. Other long-term financial instruments

3. *Cost of capital*

- a. Weighted average cost of capital
- b. Cost of individual capital components
- c. Calculating the cost of capital
- d. Marginal cost of capital
- e. Use of cost of capital in capital investment decisions

4. *Managing current assets*

- a. Working capital terminology
- b. Cash management
- c. Marketable securities management
- d. Accounts receivable management
- e. Inventory management

5. *Financing current assets*

- a. Types of short-term credit
- b. Minimizing the cost of short-term credit

D. Decision Analysis (25% - Level C)

1. *Decision process*

- a. Steps in the decision process
- b. Evaluation of decision results

2. *Relevant data concepts*

- a. Future oriented revenues and costs
- b. Sunk costs
- c. Opportunity costs

3. *Cost/volume/profit analysis*

- a. Breakeven analysis
- b. Profit performance and alternative operating levels
- c. Analysis of multiple products

4. *Marginal analysis*

- a. Special orders and pricing
- b. Make versus buy
- c. Sell or process further
- d. Add or drop a segment

5. *Cost-based pricing*

- a. Comparing to market-based prices
- b. Setting prices
- c. Target costing

E. Investment Decisions (20% - Level C)

1. *Capital budgeting process*

- a. Definition
- b. Stages of capital budgeting
- c. Incremental cash flows
- d. Income tax considerations

- 2. *Discounted cash flow analysis***
 - a. Net present value
 - b. Internal rate of return
 - c. Comparison of NPV and IRR

- 3. *Payback and discounted payback***
 - a. Uses of payback method
 - b. Limitations of payback method
 - c. Discounted payback

- 4. *Ranking investment projects***
 - a. Capital rationing
 - b. Mutually exclusive projects
 - c. Ranking methods

- 5. *Risk analysis in capital investment***
 - a. Sensitivity analysis
 - b. Certainty equivalents
 - c. Other approaches to dealing with risk

- 6. *Real options in capital investments***
 - a. Definition and types of real options
 - b. Valuation of real options

Part 4 – Business Applications

The final part of the CMA examination is a three-hour test consisting of several business-oriented essay questions and problems requiring both written and quantitative responses. These questions will include a combination of a variety of topics from the content specifications for Parts 1, 2, and 3 as well as some special topics outlined below. These topics will be presented in realistic business situations, and candidates will be expected to show an understanding of the appropriate principles and practices. It should be noted that Part 4 may only be taken after successful completion of Parts 1, 2, and 3.

In addition to the topics outlined in the content specifications for Parts 1, 2 and 3, the Part 4 examination will include the following topics. There will be at least one question that will be devoted to an ethical situation presented in a business-oriented context.

Additional Part 4 Topics

- 1. *Organization management***
 - a. Organization structures
 - b. Jobs and teams
 - c. Leadership styles and sources of power
 - d. Motivational theories
 - e. Diversity issues

- 2. *Organization communication***
 - a. Communication models
 - b. Deterrents to effective communication

- 3. *Behavioral issues***
 - a. Alignment of organizational goals
 - b. Issues in budgeting and standard setting
 - c. Issues in reporting and performance evaluation

- 4. *Ethical considerations***
 - a. Provisions of “Standards of Ethical Conduct for IMA Members”*
 - b. Corporate responsibility for ethical conduct
 - c. Evaluation and resolution of ethical issues such as
 - Fraudulent reporting
 - Manipulation of analyses and results
 - Unethical behavior in developing budgets and standards
 - Manipulation of decision factors

*Available at www.imanet.org.

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