

ISM Certified Professional in Supply Management [CPSM] Exam Specifications

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CPSM Acknowledgements

PURPOSE:

The purpose of the Exam Specification is to provide information about the format and content of the Certified Professional in Supply Management (CPSM) exams. This information will allow individuals to prepare themselves, or to prepare others, to take the examinations. Information regarding the program is continually updated on the ISM Web site at www.ism.ws

BACKGROUND INFORMATION:

The mission of the Institute for Supply Management™ (ISM) is to lead supply management. With that mission in mind, ISM undertook an enormous task in developing a new qualification — the Certified Professional in Supply Management (CPSM). This new qualification will be available in 2008.

ISM's Certification Committee recommended and was supported by findings from the research study conducted with Knapp & Associates International Inc. to offer a new qualification. Foremost among the study's conclusions was that pronounced changes in the field demand that the new qualification reflect higher skill levels across the entire spectrum of supply management. It needs to address the realities of supply management, as well as workplace complexities including globalization, greater use of technology and expanded competencies that supply management professionals employ to drive value in their organizations. The CPSM meets these criteria and is slated to be the profession's most rigorous qualification, representing the highest degree of professional competencies.

In developing this Examination Specification, ISM utilized a technique called Job Analysis at the Speed of Reality. This allowed ISM to draw upon the knowledge and expertise of practitioners from various industries with responsibilities across the components of supply management. These subject matter experts (SMEs) kept in mind ISM's definition of supply management, the defined scope of the position, and the components of supply management when determining the knowledge, skills and abilities needed for this position.

ISM's definition of supply management is "the identification, acquisition, access, positioning, management of resources and related capabilities the organization needs or potentially needs in the attainment of its strategic objectives."

The supply management professionals targeted are those individuals who provide leadership by aligning resources to define and satisfy diverse internal and external customer needs through the acquisition and ongoing management of materials and services.

The SMEs also ensured that the components defined by ISM to be integral to supply management were included in the specifications.

- Disposition/Investment Recovery
- Distribution
- Inventory Control
- Logistics
- Materials Management
- Packaging
- Product/Service Development
- Procurement/Purchasing
- Quality
- Receiving
- Strategic Sourcing
- Transportation/Traffic/Shipping
- Warehousing
- Outsourcing Issues
- Production Management – Manufacturing Supervision

The subject matter experts represented the following industries:

- Accommodation and Food Services
- Administrative Support; Waste Management and Remediation Services
- Agriculture, Forestry and Fishing
- Arts, Entertainment and Recreation
- Construction

- Educational Services
- Finance and Insurance
- Healthcare and Social Assistance
- Information
- Management of Companies and Enterprises
- Manufacturing
- Mining
- Other Services (except Public Administration)
- Professional, Scientific and Technical Services
- Public Administration
- Real Estate and Rental and Leasing
- Retail Trade
- Transportation and Warehousing
- Utilities
- Wholesale Trade

CPSM INFORMATION:

The CPSM will require the passing of three (3) examinations.

- Exam 1: Foundation of Supply Management
 - o 165 Questions (150 scored) in 2 hours and 45 minutes — Domestic
- Exam 2: Effective Supply Management Performance
 - o 165 Questions (150 scored) in 2 hours and 45 minutes — Domestic
- Exam 3: Leadership in Supply Management
 - o 180 Questions (165 scored) in 3 hours — Domestic

CPSM PROGRAM REQUIREMENTS:

In order to be eligible for the CPSM, candidates are required to pass three (3) examinations and to document five years of full-time, professional (nonclerical, nonsupport) supply management experience and a four-year degree from a regionally accredited institution. ISM membership is not a requirement for this qualification. If you are a Certified Purchasing Manager (C.P.M.) in good standing and have a four-year degree from a regionally accredited institution, you may be eligible to take the bridge exam of the CPSM. The bridge exam will consist of contemporary content not currently tested on the C.P.M. Exam. This bridge exam will be available in 2008 through 2014.

ISM strives to keep the exam development process separate from the preparation to take exams. Because ISM has maintained this separation, ISM was awarded accreditation by the American National Standards Institute (ANSI) based upon ISO/IEC 17024 standard. ISM was one of three organizations to initially receive this designation.

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ISM CPSM Exam Specifications

Table of Contents

Exam 1: Foundation of Supply Management	2
Contracting and Negotiations	2
Cost and Finance	6
International	8
Social Responsibility	9
Sourcing	11
Supplier Relationship Management	13
Exam 2: Effective Supply Management Performance	16
Forecasting	16
Logistics	18
Materials and Inventory Management	19
Organization and Department Assessment	20
Planning	21
Product Development	22
Project Management	23
Quality	24
Exam 3: Leadership in Supply Management	26
Leadership	26
Risk and Compliance	31
Strategic Sourcing	33

Exam 1: Foundation of Supply Management

1-A. Contracting and Negotiation

1-A-1

Prepare solicitations for competitive bids, quotations and proposals with pertinent specifications, terms and conditions.

Knowledge of:

- 1) Methods of communicating attributes of a product or service
 - A) Performance and design specifications (e.g., SOW)
 - B) Internal vs. external specifications
 - C) Supplier samples
- 2) Types of solicitations/bids
 - A) Offer to buy vs. Offer to sell
 - B) Informal bid/Quotations
 - C) Electronic solicitations (RFx)
 - D) Competitive proposals
 - E) Sealed bids/Formal advertising
 - F) Restricted competition
 - G) Non-competitive negotiations
 - H) Two-step bidding
 - 1.0 Pre-qualified bidding
 - I) Alternative/Innovative proposals
 - J) Pricing models/market baskets
 - K) Lotting strategies (online bidding)
- 3) Requests for information
 - A) When to use
 - B) Potential benefits
 - C) Potential problems
- 4) Bidder's conferences
 - A) When to use
 - B) How to arrange and conduct
 - C) Selection of participants
 - D) Potential benefits
 - E) Potential problems
- 5) General solicitation procedures and concepts
 - A) Comparability
 - B) Fairness/Business ethics
 - C) General format/Content of bid requests
 - D) Fair response time
 - E) Issue dates
 - F) Opening/closing dates
 - G) Inclusion of potential contract and T & Cs
- 6) Terms and conditions of solicitations and offers
 - A) Types
 - B) When to use
- 7) Bonds and other types of surety
 - A) Bid bonds
 - B) Performance bonds
 - C) Payment bonds
 - D) Deposits
 - E) Letters of credit
 - F) Real estate
 - G) Cash
- 8) Problems related to the solicitation and receipt of offers
 - A) Time extensions and amendments to solicitation
 - B) Late bids (without time extensions)
 - C) Offers with errors, irregularities or omissions
 - D) Conflicts of interest
 - E) Protests
 - F) Confidentiality/Security
 - G) Alternate proposals
 - H) Debriefing process
 - I) Procedures for cancellation of solicitations

1-A-2

Prepare for and develop strategies and tactics for negotiations, including definition of roles and responsibilities of team members.

Knowledge of:

- 1) Preparations for negotiations
 - A) Negotiation objectives
 - 1.0 Fair and reasonable price
 - 2.0 Timely performance
 - 3.0 Meeting the minimum essential needs of the organization
 - 3.1 Defining must-haves and wants
 - 4.0 Control over how the contract is performed
 - 5.0 Maximum supplier cooperation
 - 6.0 Sound relations with suppliers
 - B) Negotiation site
 - C) Team selection
 - D) Relevant information (e.g., proposals, learning curves, backgrounds of players)
 - E) Analysis of seller's and purchaser's positions
 - 1.0 Seller's desire for a contract
 - 2.0 Seller's certainty of getting a contract
 - 3.0 Amount of time for negotiation
 - 4.0 Adequacy of cost/price analysis
 - 5.0 Best Alternative to a Negotiated Agreement (BATNA)
 - 6.0 Seller's competitive position (sole source or otherwise)
 - 7.0 Skill and authority level of the negotiator/negotiation team
 - 8.0 Extent of planning for the negotiation
 - 9.0 Seller's financial condition
 - 10.0 Buyer's financial condition

- F) Market and product conditions
- G) Development of strategies and tactics
- H) Cultural factors
- I) Fall-back alternatives

- 2) Negotiation philosophies
 - A) Win-Win/Cooperational
 - B) Win-Lose/Adversarial/Competitive
 - C) Lose-Lose/Confrontational

1-A-3

Lead/conduct/support negotiations with suppliers to obtain desired results.

Knowledge of:

- 1) Negotiation tactics
- 2) Special considerations in conducting negotiations
 - A) Fact-finding sessions
 - B) Final proposal revisions
 - C) Negotiating with sole offeror vs. entire competitive range
 - D) Documentation of negotiation
 - E) Negotiations as a consortium or cooperative

1-A-4

Manage the preparation and/or issuance of contracts/purchase orders/agreements.

Knowledge of:

- 1) Elements of a contract
 - A) Offer and acceptance
 - 1.0 Counteroffers
 - 2.0 Acknowledgment
 - B) Consideration
 - C) Competent parties
 - D) Legality of purpose

1-A. Contracting and Negotiation

1-A-4 Continued

- 2) Types of obligation documents
 - A) Written vs. oral contracts
 - 1.0 Reasons for written contracts
 - 2.0 Circumstances where oral contracts are acceptable
 - 3.0 Electronic
 - 3.1 Trading partner agreements
 - 4.0 Statute of frauds
- 3) Purchase orders
- 4) Letters of intent
 - A) Purpose
 - B) Types
 - 1.0 Binding
 - 2.0 Nonbinding
- 5) Contract/agreement types
 - A) Fixed price
 - 1.0 Firm fixed price
 - 2.0 Fixed price with escalation
 - 3.0 Fixed price with redetermination
 - 4.0 Fixed price with incentive
 - 5.0 Fixed price level of effort
 - 6.0 Fixed price with downward price protection
 - 7.0 Fixed price with remedies
 - B) Cost reimbursable
 - 1.0 Cost plus fixed fee
 - 2.0 Cost plus percentage of cost
 - 3.0 Cost plus incentive fee
 - 4.0 Cost plus award fee
 - 5.0 Cost without fee
 - 6.0 Cost sharing
 - C) Indefinite delivery contracts
 - 1.0 Indefinite delivery/Indefinite quantity
 - 2.0 Task order and delivery order
 - 3.0 Time and material contracts
 - 4.0 Blanket agreements
 - 5.0 Requirements contracts
 - D) Letter contracts
 - E) Dealer's agreement
 - F) Service agreements
 - 1.0 Master service agreements
 - 2.0 Professional service agreements
 - 3.0 Maintenance agreements
 - 4.0 Performance-based agreements
 - G) Licensing agreements
 - 1.0 Software
 - 2.0 General
 - 3.0 Technology
 - H) Master purchase agreements (e.g., IT hardware, desktop, supplies, materials)
 - I) Construction contracts (American Institute of Architects, Americans With Disabilities requirements)
- 6) Purchase order confirmations and acknowledgments
 - A) When to use
 - B) Unilateral vs. bilateral instruments
 - C) Exceptions to terms and conditions
 - 1.0 Seller's exceptions to purchaser's items
 - 2.0 Purchaser's exceptions to seller's items

- 7) Considerations in preparing obligation documents
 - A) Intellectual property
 - 1.0 Patents
 - 2.0 Copyrights
 - 3.0 Trademarks
 - 4.0 Licensing
 - 5.0 Confidentiality
 - B) Royalties
 - C) Consideration of domestic and international laws (e.g., Convention for the International Sale of Goods (CISG), UCC, contract law)
 - D) Advance notification and consent to subcontract
 - E) Notice of awards
 - F) Payment terms
 - G) Insurance and indemnification
 - H) Termination and exit clauses
 - I) Customer confidentiality (e.g., Gramm-Leach-Bliley Act (GLBA))
 - J) Force majeure
 - K) Restraint of trade issues
 - L) Security issues (e.g., Homeland Security)
 - M) Assignability provisions
 - N) Source code escrow accounts
 - O) Protests
 - P) Claims
 - Q) Limitation of liability
 - R) Waiver of consequential damages
 - S) Collusive offers
 - T) Suspension
 - U) Reservation of rights
 - V) Estoppel
 - W) Social responsibility issues
 - X) State of domain/Jurisdiction
 - Y) Liquidated damages
 - Z) Contractor flowdowns
 - AA) Warranties
 - BB) Remedies
- 8) Statements of Work
 - A) Work breakdown structure
 - B) Hold points/Milestones
 - C) Performance evaluation factors

1-A-5

Administer contracts/purchase orders from award to completion or termination.

Knowledge of:

- 1) Contract administration concepts
 - A) Work control
 - B) Compliance
 - C) Financial responsibility
 - D) Approving systems
 - E) Administrative responsibilities
 - 1.0 Price adjustment clauses
 - 2.0 Administration of change orders
 - F) Contract terms and conditions
 - G) Documentation requirements
 - H) Contract close-out
- 2) Supplier management concepts
 - A) Statement of Work
 - B) Annual work plan
 - C) Standards of performance
 - D) Supplier feedback
 - E) Supervision of supplier
 - 1.0 Onsite
 - 2.0 Remote

1-A. Contracting and Negotiation

1-A-5 Continued

- F) Management by exception
- G) Progress reports
- H) Customer feedback
 - 1.0 Internal
 - 2.0 External
- 3) Conflict/dispute resolution
- 4) Termination options

1-B. Cost-Finance

1-B-1

Prepare and/or administer a supply management department budget.

Knowledge of:

- 1) Budgeting's relationship to the strategic and operational plans
- 2) Steps in budgeting
 - A) Review goal and objective alignment
 - B) Define needed resources (e.g., personnel, equipment, furnishings, training)
 - C) Estimate the dollar value of resources
 - D) Present the budget/obtain the appropriation
 - E) Variance analysis
- 3) Purposes for a budget
 - A) Control of expenditures
 - B) Pre-approved funding
 - C) Monitoring of expenditures
 - D) Development of standard costs
- 4) Types of budgets
 - A) Zero-based budget
 - B) Cash-flow budgets
 - C) Line item

- D) Program/Project
- E) Capital
- F) Flexible

1-B-2

Develop a cost management program strategies for purchases.

Knowledge of:

- 1) Cost savings
 - A) Cost avoidance/containment
 - B) Cost reduction
- 2) Issues to be considered when establishing a cost management program
 - A) Status of the standardization program
 - B) Coordination with other departments
 - C) Time requirements
 - D) Effect on quality and service
 - E) Effect on operations
 - F) Calculating cost avoidance/reduction
 - G) Market testing
 - H) Top management support
 - I) Design flexibility
 - J) Product longevity
 - K) Consumption management
- 3) Value analysis/value engineering processes
 - A) Process
 - B) Techniques
 - C) Organizational requirements
 - D) Function in relation to cost and quality
- 4) Cost modeling
- 5) Standard cost setting
- 6) Product cost roll-up
- 7) Margins
- 8) Contribution to profit

- 9) Cost of quality
- 10) Cost of inventory
- 11) Intangible costs
- 12) TCO
- 13) Other forms of cost management
 - A) Improved form, fit and function
 - B) Easier use
 - C) Administrative savings
 - D) Improved quality
- 2) Direct costs
- 3) Indirect costs
 - A) Fixed
 - B) Variable
 - C) Semi-variable
- 4) Carrying costs
- 5) Should cost
- 6) Target cost
- 7) Relevant vs. irrelevant costs

1-B-3

Identify savings potential and opportunities and strategies for specific categories through spend analysis.

Knowledge of:

- 1) Sources of spend data (i.e., P-card, purchasing records, business warehouse, etc.)
- 2) Data-mining tools
- 3) Cost baseline
 - A) Forecasting future utilization and spend
 - B) Cost savings vs. cost avoidance
 - C) Budget reduction
 - D) Current/historical, then determine future budget forecasting
- 4) Awareness of implementation process
- 5) Segmentation/Categorization of spend
- 8) Overhead
 - A) Allocation
 - B) Activity-based costing
- 9) Opportunity costs
- 10) Financial analysis
 - A) Return on investment
 - B) Return on assets employed
 - C) Return on total assets
 - D) Margin analysis
 - E) Profitability
 - F) Cash flow
 - G) Balance sheet
 - H) Profit and loss
- 11) Lease/Buy analysis
 - A) Types of leasing arrangements
 - 1.0 Operating lease
 - 2.0 Financial lease
 - 2.1 Full payout
 - 2.2 Partial payout
 - 2.3 Lease/Purchase
 - 3.0 Leveraged lease
 - 4.0 Master lease
 - 5.0 Wet lease/Dry lease
 - 6.0 Sale and leaseback

1-B-4

Perform cost/benefit analyses on acquisitions.

Knowledge of:

- 1) Definition of total cost of ownership
 - A) Unit total cost
 - B) Life-cycle cost
 - C) Landed cost
 - D) Total cost of performance for services

Exam 1: Foundation of Supply Management

1-B. Cost-Finance

1-B-4 Continued

- B) Factors in a lease/buy decision
 - 1.0 Financial factors
 - 1.1 Inflation
 - 1.2 Capital budget considerations
 - 1.3 Third-party reimbursement
 - 1.4 Interest rates
 - 1.5 Balance sheet considerations
 - 1.6 Cash-flow analysis
 - 1.7 Depreciation
 - 1.8 Tax considerations
 - 1.9 Residual value
 - 1.10 Payment schedules
 - 2.0 Operational factors
 - 2.1 Obsolescence
 - 2.2 Maintenance services
 - 2.3 Administrative overhead
 - 2.4 Operating costs
 - 2.5 Life of the asset
 - 2.6 Customization
 - 2.7 Term of the lease
 - 3.0 Other factors
 - 3.1 Ownership benefits
 - 3.2 Limitation of sources of supply
 - 3.3 Early termination
 - 3.4 Insurance
 - 3.5 Organization policy
 - 3.6 Emergency situations
- C) Legal/accounting considerations
 - 1.0 Uniform Commercial Code 2A Leasing
 - 2.0 FASB-13

- 3.0 Sarbanes-Oxley (off-balance-sheet transactions, etc.)

1-B-5

Develop financing and leveraging strategies for purchases.

Knowledge of:

- 1) Cash flow
- 2) Interest rates
- 3) Payment terms
- 4) Depreciation
- 5) Market conditions
- 6) Commodity markets
- 7) Bond & currency markets
- 8) Regulations
- 9) Tax laws
- 10) Import/Export quotas
- 11) Supplier financing
- 12) Equity investment
- 13) Centralized buying
- 14) Lead division buying
- 15) Cooperative purchasing
- 16) Consortia

1-C. International

1-C-1

Identify and assess international markets to source goods and services.

Knowledge of:

- 1) Cultural awareness
- 2) Issues in global business
 - A) Organizational global strategy
 - B) Global macro- and microeconomic concepts
 - C) Organization structure and dynamics
 - D) Global marketing

- E) Country-specific accounting standards and practices
- F) Human resource management
 - 1.0 Labor skills
 - 2.0 Labor practices
 - 3.0 Human rights
 - 4.0 Cultural differences
- G) Corporate governance issues
- H) Legal implications (e.g., contracting)
- I) Intellectual property
- J) Brand management
- 3) Infrastructure
 - A) Technology
 - B) Transportation
 - C) Governmental stability
- 4) Risk assessment
- 5) Cost-benefit and opportunity analysis
- 5) Development of a business case/plan
 - A) Supplier relationship model
 - B) In-country partners
- 6) Contingency plans and exit strategies
- 7) Country-specific governmental regulations (e.g., customs, import/export)
- 8) Brokers/Import merchants
- 9) Trade networks/Trading companies
- 10) Logistics providers

1-C-3

Develop and maintain documentation regarding cross-border transactions.

Knowledge of:

- 1) Federal regulations pertaining to restricted parties and countries
- 2) Customs requirements
- 3) Broker arrangements

1-C-2

Develop international sources of materials and services.

Knowledge of:

- 1) Research and benchmarking of potential global suppliers
- 2) Interpersonal skills when working with other cultures
- 3) Cultural awareness
- 4) Financial issues
 - A) Landed cost analysis
 - B) Exchange rates
 - C) Payment mechanisms
 - D) Taxes
 - E) Fees
 - F) Tariffs
 - G) Duty drawback

1-D. Social Responsibility

1-D-1

Develop and act upon a code of business conduct for the supply management function and external suppliers.

Knowledge of:

- 1) ISM Principles and Standards of Ethical Supply Management Conduct
- 2) ISM Principles of Social Responsibility
 - A) Community
 - B) Diversity
 - C) Environment
 - D) Ethics
 - E) Financial responsibility
 - F) Human rights
 - G) Safety
- 3) Organizational policies

1-D. Social Responsibility

1-D-1 Continued

- 4) Industry codes of conduct
 - 5) International issues
 - A) United Nations' *The Nine Principles of the Global Compact*
 - 6) Communication and training to key stakeholders
 - 7) Laws governing issues in ethics
 - A) Libel
 - B) Slander
 - C) Disparagement
 - D) Bribery
 - 8) Customer-driven requirements
- 6) ISM Principles of Social Responsibility and Audit
 - 7) Buy-recycled programs
 - 8) Minimization of waste
 - A) Reduce
 - B) Reuse
 - C) Recycle
 - 9) End of life-cycle
 - A) Disposal options
 - B) Sell to another organization

1-D-2

Establish and monitor environmentally responsible and compliant programs throughout the supply chain and life-cycle.

Knowledge of:

- 1) Environmental laws/regulations
 - A) At source
 - B) In transit
 - C) At destination
- 2) Risk transfer
 - A) Contractual
 - B) Insurance
 - C) Legal
- 3) Ethical issues
- 4) Audit
 - A) Internal
 - B) Supply chain
 - C) Reporting
- 5) Organization values and policies

1-D-3

Implement, monitor and promote organizational and supply chain safety policies and procedures.

Knowledge of:

- 1) Laws and regulations
 - A) Applicable laws (federal, state, local, international)
 - B) Personal liability
 - C) Organizational liability
 - D) Department of Transportation or other country's equivalent
 - E) Department of Homeland Security or other country's equivalent
- 2) Policies and procedures
 - A) Employee safety
 - 1.0 Training requirements
 - 2.0 Personal Protective Equipment
 - 3.0 MSDS/posting requirements
 - B) Record retention
 - C) Industry best practice
 - D) Storage requirements

- 3) Supplier and subcontractor safety (e.g., safety history)
 - A) Audit and review
 - B) Training
- 4) Customer-driven requirements

1-E. Sourcing

1-E-1

Analyze potential sources of goods or services.

Knowledge of:

- 1) Supply base analysis
 - A) Degrees of competition
 - 1.0 Full and open competition
 - 2.0 Limited competition
 - 3.0 Technical competition
 - 4.0 Single source
 - 5.0 Sole source
 - 6.0 Multiple source
- 2) Nature of sources and their effects on procurement
 - A) Manufacturers vs. distributors
 - B) Large vs. small suppliers
 - C) National vs. local suppliers
 - D) International vs. domestic suppliers
 - 1.0 Exchange rates
 - 2.0 Payment processes
 - 3.0 Duties
 - 4.0 Transportation costs and timing
 - 5.0 Applicable laws
 - E) Mandatory sources of supply
 - F) Emergency sources
 - G) Small and historically underutilized businesses (HUB, WOB, VOB, MOB)
 - H) Cooperative/consortium buying

- I) Joint ventures
- J) Internal vs. external sources
- 3) Existing vs. new sources
 - A) Market conditions
 - B) Product complexity/technology changes
 - C) Urgency of need
 - D) Quality expectations
 - E) Supplier processes
 - F) Adequacy of competition
 - G) Cost versus value of sources
 - H) Long-term needs
 - I) Long-term relationships
 - J) Supply base optimization
 - K) Change in supplier's organization
 - L) Supply continuity
 - M) Internet-based searches
 - 1.0 Meta database search (e.g., Google, Dogpile, etc.)
 - 2.0 Online buying guides
 - N) Trade shows/periodicals
 - O) Peer benchmarking

1-E-2

Evaluate competitive offerings to determine the overall best offer for a product/service.

Knowledge of:

- 1) Decision matrix/multi-attribute evaluation tool
- 2) Receiving, controlling and analyzing offers
- 3) Offer responsiveness
 - A) Specifications/statements of work
 - B) Quality requirements
 - C) Terms and conditions
 - D) Product/service substitutions
 - E) Use of technical proposals (unpriced)

1-E. Sourcing

1-E-2 Continued

- 4) Technical analysis
- 5) Operational analysis
 - A) Site audits
- 6) Cost and price analysis
 - A) Price analysis methods
 - 1.0 Market benchmarking
 - B) Profit analysis
 - C) Savings analysis
 - D) Total cost vs. price
 - 1.0 Learning curve
 - 2.0 Life-cycle costing
 - E) Cost analysis
- 7) Offeror capability/offeror responsibility
 - A) Past performance
 - B) Capacity
 - C) Skills
 - D) Integrity
 - E) Time in business/market
 - F) Certification and licensing
 - G) Financial factors
 - H) Reference checking
- 8) Transportation terms
 - A) International transportation terms (INCOTERMS)
 - B) Domestic transportation terms
- 9) Other factors
 - A) Availability
 - B) Leadtime
 - C) Logistical concerns
 - D) Supplier diversity considerations

- E) Business continuity plans
- F) Information security

1-E-3

Plan and communicate sourcing and supply strategies based on forecasted data.

Knowledge of:

- 1) Buying strategies
 - A) Spot buying
 - B) Buying to requirements
 - C) Forward buying
 - D) Speculative buying
 - E) Volume purchase agreements
 - F) Life-of-product supply
 - G) Just-In-Time
 - H) Consignment
 - I) Commodities
 - 1.0 Market dynamics
 - 2.0 Exchanges
 - 3.0 Terminology
 - J) Supplier replenishment systems
 - K) Outsourcing
- 2) Financial tools
 - A) Hedging
 - B) Dollar averaging
 - C) Contracting
- 3) Forecasts of volume
 - A) Determining annual requirements
 - B) Part (or product) life cycle
 - C) Supply markets relative to short and long-term buying needs

- 4) Factors in the selection of the method of procurement
 - A) Degree of competition/market situation
 - B) Industry norms and standards
 - C) Urgency
 - D) Dollar value
 - E) Nature of product/service specifications
 - F) Type of contract desired
 - G) Frequency of purchases
 - H) Risk
 - I) Customer requirements
 - J) Leadtime
 - K) Level of flexibility desired
 - L) Buyer/seller uncertainty

1-F. Supplier Relationship Management

1-F-1

Identify opportunities and benefits for rationalizing supply base.

Knowledge of:

- 1) SWOT analysis
- 2) Data-mining tools
- 3) Supply base rationalization
- 4) Supplier categories
 - A) Approved suppliers
 - B) Preferred suppliers
 - C) Partnered suppliers
 - D) Certified suppliers
 - E) Pre-qualified suppliers
 - F) Certifiable suppliers
 - G) Disqualified suppliers
 - H) De-barred suppliers
 - I) Diverse suppliers
- 5) Supplier segmentation

1-F-2

Develop/manage effective relationships with suppliers.

Knowledge of:

- 1) Benefits of good supplier relations
- 2) Confidentiality policies
 - A) Typical policies regarding the possession, use and return/disposition of suppliers' property (intellectual and physical)
 - B) Organizational policies for suppliers regarding your IP
- 3) Ways of promoting good relations and trust
 - A) Top management meetings
 - B) Relations between suppliers and customer functions
 - C) Timely payment of invoices
 - D) Equitable treatment of suppliers
 - E) Periodic supplier surveys
 - F) Enhanced two-way communication
 - G) Supplier training
 - H) Team building
 - I) Supplier development
 - J) Periodic business reviews
- 4) Issues in supplier product education and involvement
 - A) Advantages
 - B) Possible problems
 - C) Site visits
 - D) Supplier days/forums
- 5) Issues in reciprocity
 - A) Legality
 - B) Impact on suppliers and buyers
 - C) Domestic vs. international

1-F. Supplier Relationship Management

1-F-2 Continued

- 6) Concepts of continuous improvement
 - A) Quality
 - B) Cost
 - C) Design
 - D) Service
 - E) Cycle time reduction
- 7) Supplier partnerships/strategic alliances
 - A) Rationale
 - B) Methods for identifying potential alliances
 - C) Forms of alliances
 - D) Developing alliances
 - E) Maintaining/sustaining alliances
 - F) Concluding alliances
 - G) Supplier certification issues
- 8) Reverse marketing/supplier development
- 9) Supplier mentorship
- 10) Early supplier involvement
 - A) New product development
 - B) Development cycle reduction time
 - C) Co-located engineering
- 11) Supply chain management
 - A) Definition
 - B) Potential benefits
 - C) Risk management
 - D) Role of supply management
 - E) Multi-tier purchasing agreements
 - F) Value chain analysis and process improvement

- 12) Supply base innovation
 - A) Managing differences
 - B) Managing breakthroughs
 - C) Managing decisionmaking
 - D) Managing transformation

1-F-3

Develop/implement a supplier diversity program.

Knowledge of:

- 1) Rationale in developing programs
 - A) Organizational policies
 - B) Impediments
 - C) Benefits
 - D) Assessing program goals
 - E) Disparity studies
 - F) Customer-driven requirements
 - G) Subcontracting plans
- 2) Sources of information on socially or economically disadvantaged suppliers/Historically Underutilized Businesses/or other country's equivalent
 - A) Small Business Administration
 - B) Minority/Women Business Development Agency
 - C) Business directories
 - D) Minority/Women Business Development Councils
 - E) Local minority/women chambers of commerce
 - F) Business fairs
- 3) Small Business/Small Disadvantaged Business (SB/SDB) requirements
 - A) Certification
 - B) Registration
 - C) Applicable classifications

- 4) Program Elements
 - A) Top management support
 - B) Company policy
 - C) Program coordinator
 - D) Buyer diversity goals

1-F-4

Develop new supplier qualification plans and reports to assure components, materials and suppliers meet specified requirements (regulatory, safety, reliability, quality).

Knowledge of:

- 1) Customer communication/CRM
- 2) Supply chain mapping
- 3) Quality systems
- 4) Logistic systems
- 5) Financial analysis
- 6) Methods of requirements gathering
- 7) Supplier evaluation measures

1-F-5

Conduct supplier performance evaluations.

Knowledge of:

- 1) Factors used to analyze a supplier's ability to perform
 - A) Capacity and utilization
 - B) Delivery
 - C) Quality history
 - D) Contractor's "make or buy" program
 - E) Cycle/leadtime
 - F) Productivity
 - G) Flexibility
 - H) References
 - I) Electronic capabilities
 - J) Breadth of product line
 - K) Customer/prime requirements

- 2) Issues in conducting site visits
 - A) Reasons for conducting visits
 - B) Costs vs. benefits of visits
 - C) Site inspection team
 - D) Factors appraised at site visits

- 1.0 Housekeeping
- 2.0 Process/material flow
- 3.0 Employee morale
- 4.0 Measurement of KPIs

- E) Timing of visits
- F) Performance audits, documentation and metrics
- 3) Evaluate changes within supplier organization

1-F-6

Develop and execute supplier exit strategies.

Knowledge of:

- 1) Internal considerations
 - A) Stakeholders
 - B) Timing
 - C) Assets (e.g., inventory, tooling, capital equipment, IP)
 - D) Documentation
- 2) External considerations
 - A) Contractual
 - B) Customer requirements
 - C) Supplier certification status
 - D) Assets (e.g., inventory, tooling, capital equipment, IP)
- 3) Associated risks
 - A) Legal requirements
 - B) Financial requirements
- 4) Community concerns

Exam 2: Effective Supply Management Performance

2-A. Forecast

2-A-1

Perform analysis and provide data on current and future and global/domestic market conditions, benchmarks and industry trends to management and/or user departments.

Knowledge of:

- 1) General issues in economics
 - A) Industries, firms and markets
 - B) Global markets
 - C) Business cycles and trends (e.g., leadtime)
 - D) Transportation trends
 - E) Economic indicators (e.g., *ISM Report On Business*[®])
 - F) Governmental policies
 - G) Political stability/instability
 - H) World industrial migration
 - I) Import/export issues
 - J) Environmental
- 2) Market analysis
 - A) Porter's Five Forces
 - B) SWOT analysis
 - C) Establish benchmarks through industry database
 - D) RFI
 - E) Supplier research
- 3) Supply market complexity vs. impact on business
 - A) Opportunity assessment
 - B) Prioritization
 - 1.0 Type of purchase
 - 2.0 Strategic
 - 3.0 Routine

4.0 Bottleneck

5.0 Leverage buy

4) Analytical/Financial skills

2-A-2

Develop supply forecasts in light of economic, competitive, technology, market and currency trends and conditions that affect procurement.

Knowledge of:

- 1) Purpose of forecasting the following:
 - A) Quantity
 - B) Industry capacity and availability
 - C) Cost or price
 - D) Technology
 - E) Planning
 - F) Assuring supply
- 2) Economic concepts and terms used in forecasting
 - A) Price indices
 - 1.0 P.P.I.
 - 2.0 C.P.I.
 - 3.0 Implicit price deflator
 - B) Interest rates
 - C) Economic indicators
 - 1.0 Leading
 - 2.0 Lagging
 - 3.0 Coincident
 - D) Inflation/deflation
 - E) Capacity utilization
 - F) Economic indexing
 - G) GDP
 - H) Balance of merchandise trade
 - I) Balance of payments
 - J) Exchange rates

3) Sources of data used in forecasting

- A) *ISM Report On Business*[®] – Manufacturing and Non-Manufacturing
- B) Government publications (international and U.S. domestic)
 - 1.0 Survey of Current Business
 - 2.0 Federal Reserve Bulletin
- C) Private publications
- D) Commercial forecasts
- E) Regional surveys
- F) Internal historical data
- G) Industry sources
- H) Online indices and search engines

4) Forecasting methodologies/techniques

- A) Short-term vs. long-term forecasting
- B) Macro- vs. micro-forecasting
- C) Delphi Method
- D) Correlation/regression analysis
- E) Time series
- F) Central tendency
- G) Variability
- H) Analysis of cyclical data
- I) Trend analysis
- J) Decision tree analysis

5) Factors that can affect forecasts

- A) Fluctuating leadtimes
- B) Changing labor conditions
- C) Changes in money markets
- D) Political factors
- E) Technological shifts
- F) Climatic conditions
- G) Changes in global trade

2-A-3

Manage forecasted data with suppliers.

Knowledge of:

- 1) Elements of Early Supplier Involvement (ESI)
 - A) Manufacturing process
 - B) Capital acquisitions budget
 - C) Product or service development/implementation
 - D) Cost
 - E) Quality
 - F) Availability
 - G) Technology
 - H) Design
 - I) Product co-development
 - J) Cycle time
- 2) Business forecasting models
- 3) Confidentiality issues
- 4) Parameters for disclosure
 - A) Product development model
 - B) Production plan
- 5) Legal implications
- 6) Supplier Managed Inventory (SMI)
- 7) Collaborative Planning Forecasting and Replenishment (CPFR)
- 8) Product Life Cycle
- 9) Information Exchange options

2-B. Logistics

2-B-1

Design/modify logistics facility layouts and equipment designs to support business model, increase productivity and lower operating costs.

Knowledge of:

- 1) Considerations for geographical location
 - A) Labor considerations
 - B) Transportation availability considerations
 - C) Governmental issues
 - 1.0 Political
 - 2.0 Tax considerations
 - D) Environmental considerations
 - E) Channel proximity/modality considerations
 - F) Average delivery time
 - G) Build-out vs. build-up
 - H) Two-dock vs. single-dock layout
 - I) Safety considerations
 - J) Security
 - K) Sanitation
 - L) Warehouse material handling systems (e.g., facility consideration re: forklifts, pickers, etc.)
- 2) Order picking vs. stock replenishing functions
- 3) Labor intensive vs. mechanized
 - A) Automation
 - B) Picker to part vs. part to picker
- 4) Virtual warehouse vs. real warehouse
- 5) Logistics performance measures, strategies and cost savings initiatives
 - A) Cost-to-sales ratios
 - B) Logistics cost per unit vs. budget
 - C) Cost of functions as a percent of sales

D) Inventory turns (e.g., Sales/Inventory, CGS/Inventory)

- 6) Third-party logistics considerations
- 7) Scorecards
- 8) Process improvement action plans

2-B-2

Direct traffic/distribution policies and procedures to ensure optimum flow of material and consolidation of freight.

Knowledge of:

- 1) Policies and procedures
 - A) Transportation modalities
 - B) Transportation restrictions
 - C) Carrier cost auditing
 - D) Carrier performance auditing
 - E) Freight classifications/Rates
 - F) Available technology
 - G) Relocation or movement processes

2-B-3

Manage international transportation, invoicing and documentation functions to ensure corporate compliance with all governmental import, export, haz-mat and air freight regulations

Knowledge of:

- 1) Characteristics of various modes of transportation
- 2) Roles of shipping companies, customers, suppliers and freight forwarders
- 3) Import/export documentation
- 4) Traffic patterns
- 5) Shipping routes
- 6) INCOTERMS
- 7) C-TPAT (Customs-Trade Partnerships Against Terrorism)

- 8) Cost/mode trade-offs
- 9) Multimodal shipments

2-B-4

Manage the resolution of delivery/receiving problems including freight loss and damage claims.

Knowledge of:

- 1) Freight terms (domestic and international)
- 2) Delivery tracking systems
- 3) Delivery performance measurements
- 4) Visible vs. latent damage
- 5) Rules for freight claims
- 6) Resolution processes
 - A) Escalation
 - B) Corrective action
- 7) Freight audit procedures

2-C. Materials and Inventory Management

2-C-1

Develop/implement a material and/or service standardization program.

Knowledge of:

- 1) General issues in standardization and simplification
 - A) Advantages and disadvantages
 - B) Procedures/steps in applying
 - 1.0 Standardization committees
 - 2.0 Involvement of other departments
 - 3.0 Effects on production methods/operations
 - 4.0 Effects of global operations
 - C) Applications to
 - 1.0 High-use or high-volume items
 - 2.0 Procurement of facilities

3.0 Procurement of MRO items

4.0 Procurement of services

- D) Brand names vs. generic names
- E) Cost-benefit analysis pertaining to standardization
- 2) Sources of standards
 - A) Internal organization
 - B) Government (e.g., National Institute of Standards and Technology)
 - C) International (e.g., ISO)
 - D) Industry/associations (e.g., ANSI)

2-C-2

Develop/implement a warehouse and inventory management system.

Knowledge of:

- 1) Physical tracking systems
 - A) RFID
 - B) Bar code
 - C) UID – Unique Identification Device and IUID – Item Unique Identification Device (DoD initiative)
- 2) Overall project plan
 - A) Plan for business continuity
 - B) Implementation plan
 - C) Manpower & equipment requirements
 - D) Facility design
 - E) Physical constraints
 - F) Fixed or random storage locations
- 3) Customer requirements
- 4) Cost considerations
- 5) Available technology for Warehouse Management System (WMS)
 - A) SWOT analysis

2-C. Materials and Inventory Management

2-C-2 Continued

- 6) Warehouse management
 - A) Structures
 - B) Storage location
 - C) Replenishment systems
 - D) Inventory classification systems
 - E) Cycle counting
 - F) Perpetual
- 7) Inventory accuracy and inventory integrity
 - A) SKU establishment
 - B) Physical inventory
 - C) Cycle counting
 - D) Reconciliation
 - E) Shrinkage
 - F) Issue/Return
 - G) Recoup
 - H) Inventory consolidation
 - I) Security
 - J) Inventory policies/procedures
 - K) Location of materials (e.g., secure storeroom, outside yard storage, etc.)

2-C-3

Coordinate and/or monitor the movement of equipment and assets within the organization.

Knowledge of:

- 1) Organizational policy for asset classification
- 2) Physical tracking systems (e.g., bar coding, asset tags, serial numbers, RFID)
- 3) Financial tracking systems
 - A) Capital equipment
 - B) Software tracking system

- 4) Internal distribution (e.g., distribution channels)
 - A) Internal transportation
- 5) Types of equipment and assets (e.g., cars, airlines, railroads, copiers)
- 6) Asset management
 - A) Inventory management
 - B) Asset recovery

2-C-4

Develop, oversee and execute multi-channel disposition plan for excess inventory and finished goods.

Knowledge of:

- 1) Investment recovery principals
 - A) Value stream mapping
 - B) Security of disposal
- 2) Market place for disposal
 - A) Broker
 - B) Dealer
 - C) Third-party specialist
- 3) Categories
 - A) Surplus
 - B) Obsolete
 - C) Damaged

2-D. Organization/Department Assessment

2-D-1

Monitor work against business plans and take action to resolve variances or adjusts plans as appropriate.

Knowledge of:

- 1) Performance measurement processes
 - A) What to measure
 - B) Measurement creation

- C) Results evaluation (signal vs. noise, key stakeholders)
- D) KPI – Key Performance Indicators
- E) Performance management systems (e.g., EVMS – Earned Value Management System, balanced scorecard, value stream)
- F) Corrective action process

2-D-2

Develop performance criteria and evaluate supply management staff performance.

Knowledge of:

- 1) Issues in the evaluation of employees
 - A) Align employee objectives to organizational goals
 - B) Determine criteria for success
 - C) Determine appraisal factors
 - 1.0 Quantitative factors
 - 2.0 Qualitative factors
 - D) Conduct interviews/give feedback
 - E) Sources of feedback
 - 1.0 Team and/or peer input
 - 2.0 Self-assessment
 - 3.0 Internal customer input
 - 4.0 Supplier input
 - F) Employee accountability (e.g., performance improvement plan)

2-D-3

Develop tools and processes to measure, report and improve compliance with supply management policies.

Knowledge of:

- 1) Creation of measurements
 - A) Audit processes
 - B) Validation process
 - C) Reporting requirements

D) Remediation

E) Training

2) Compliance metrics

A) Organizational policies (e.g., supplier diversity, social responsibility)

2-D-4

Analyze and resolve issues raised in supply management audit reports.

Knowledge of:

- 1) Types of audits (e.g., ISO, GAAP, SOX)
- 2) Measurement of change initiatives
- 3) Validation of current policies, procedures, work instructions and forms
- 4) Corrective action process
 - A) Establishment of time frames
 - B) Prioritization
 - C) Cost/benefit analysis
- 5) Audit schedules and reports

2-E. Planning

2-E-1

Implement or utilize requirements planning (xRP — e.g., ERP, MRP, MRP II, DRP, DRP II) to align supply management and operations activities to support organizational strategy.

Knowledge of:

- 1) Key principles of xRP
 - A) Enterprise integration
 - B) Data source consolidation
 - C) Information sharing
- 2) System Development Life Cycle (SDLC)
 - A) Analysis
 - B) Design
 - C) Development
 - D) Testing

2-E-2

Develop, implement, maintain and monitor the forecasting, operations planning, scheduling and inventory control functions to ensure optimum use of capacity and resources.

Knowledge of:

- 1) Forecasting models/methodologies
 - A) Least squares/Regression model
 - B) Box Jenkins
 - C) Winters model
 - D) Judgment sampling
 - E) Future sales based on past sales
- 2) Measures of forecast accuracy
 - A) Standard error rates
 - B) Mean squared error
 - C) Mean percentage error
- 3) Replenishment/Priority tools
 - A) Supplier Managed Inventory (SMI)
 - B) ABC analysis/classification
 - C) Reorder point systems
 - D) Fixed order period
 - E) Fixed order quantity
 - F) Kanban
 - G) Buffer/Safety stock
 - H) Obsolete/damaged/slow moving
- 4) Scheduling processes
 - A) Flow manufacturing
 - B) Level scheduling
 - C) Packaging optimization
 - D) Shared visibility into inventory (your organization, customer and supplier)
 - E) Bull-whip effect
- 5) Capacity utilization techniques
 - A) Sales forecasts
 - B) Implementation schedule

2-F. Product Development

2-F-1

Participate in product/service development or specification/requirement changes that support organizational merchandising and marketing efforts to meet customer needs.

Knowledge of:

- 1) Product development process
 - A) Customer requirements
 - B) Quality Function Deployment (QFD)
 - 1.0 House of Quality matrix
 - C) Needs analysis
 - D) Alternate sources of supply
 - E) Evaluation techniques of supply forecasts and capacity
 - F) Benchmarking
 - G) Planned obsolescence
 - H) Early Purchasing Involvement (EPI)
- 2) Role of supply management in product/service design
 - A) Research and development
 - B) Substitution
 - C) Product innovation
 - D) Contracting for design services
 - E) Qualified Products Lists (QPL)
 - F) Early Supplier Involvement (ESI)
 - G) Sourcing and cost profitability issues
 - H) Target costing

2-F-2

Manage ramp-up strategy and implementation to full-scale production for new product introductions.

Knowledge of:

- 1) Sales projections
- 2) Staffing requirements

- 3) Operations capacity and capabilities
 - A) Operations flexibility and response time
 - B) Equipment and labor capabilities
- 4) Logistics/distribution capabilities
- 5) Supplier capability/capacity analysis
 - A) Tooling
 - B) Prototype qualification
- 6) Leadtime and inventory planning

2-G. Project Management

2-G-1

Perform project management activities representing the supply management organization.

Knowledge of:

- 1) Project initiation
 - A) Root cause analysis
 - 1.0 SWOT analysis
 - 2.0 Kepner-Tregoe rational process analysis
 - 3.0 Six Sigma process analysis
 - 4.0 Business case analysis
 - 5.0 Alternative analysis
 - 6.0 Project feasibility analysis
 - 6.1. Net Present Value (NPV), Internal Rate of Return (IRR), Payback
 - 7.0 Stakeholder analysis
 - 8.0 Project charter
 - 8.1 Project charter approval process
- 2) Project planning
 - A) Procurement planning process
 - 1.0 Solicitation planning process
 - 2.0 Scope development
 - 2.1 SOW (Statement of Work)
- 3) Project execution
 - A) Solicitation process
 - 1.0 Source selection process
 - 2.0 Project team management
 - 3.0 Change management
- 4) Project monitoring and control
 - A) Contract administration process
 - 1.0 Performance measurement tools
 - 1.1 Earned value management, schedule analysis, budget analysis
 - 2.0 Change control processes
 - 3.0 Risk monitoring process
 - 4.0 Performance management reporting
 - 4.1 Triple constraints (cost, schedule & performance)
 - 4.2 Milestone reviews
 - 5.0 Project management software programs
- 5) Project closure
 - A) Contract closeout processes
 - 1.0 Property dispositions process
 - 2.0 Final product/service acceptance
 - 3.0 Final payment process

- 3.0 Project team roles and responsibilities
 - 3.1 RAM (Responsibility Assignment Matrix)
- 4.0 Budget development
- 5.0 Schedule development
 - 5.1 Critical path
- 6.0 Risk management
 - 6.1 Risk matrix
- 7.0 Organizational structures
 - 7.1 Functional, matrix, projectized
- 8.0 Project plan approval process

2-G. Project Management

2-G-1 Continued

- B) Best practice and lessons learned identification
- C) Post project auditing procedure

2-G-2

Implement a continuous improvement process within the supply chain in accordance with organizational objectives.

Knowledge of:

- 1) Benchmarking systems
- 2) Process mapping
- 3) Process costing
- 4) Maturity models
- 5) Capability Maturity Model-Integrated (CMMI)
- 6) Contract Management Maturity Model (CMMM)
- 7) Process improvement metrics
- 8) Process improvement methods (e.g., lean methods, JIT, Six Sigma, value stream mapping)
- 9) Supplier workshops

2-H. Quality

2-H-1

Develop/administer a supplier certification program.

Knowledge of:

- 1) Supplier quality practices
- 2) Supplier certifications/registrations (e.g., ISO, GMP (Good Manufacturing Practices))
- 3) Congruence of test methodologies and results between buying and selling organizations
- 4) Organizational requirements for supplier certification (e.g., evidence of SPC)

2-H-2

Develop measurements for continuous quality improvement and target setting.

Knowledge of:

- 1) Quality assurance
 - A) Definition of quality
 - B) Acceptance testing
 - C) Certification requirements
 - D) Quality documentation
 - E) “Best in class” benchmarks
- 2) Quality management
 - A) Definition
 - B) Meeting customer needs
 - C) Quality tools
 - D) Statistical tools

2-H-3

Develop, measure and evaluate quality requirements to continuously improve supplier performance.

Knowledge of:

- 1) Customer/user requirements
- 2) Internal requirements
- 3) Service Level Agreements (SLA)
 - A) Service (e.g., customer satisfaction, leadtime, on time)
 - B) Cost performance
 - C) Quality
 - 1.0 Periodic inspections
 - 1.1 Internal requirements
 - 2.0 Customer requirements
 - 3.0 Statistical methods/techniques
 - 4.0 Testing methods
 - 5.0 Levels of inspection

- 4) Measurements/methods
 - A) Customer surveys
 - B) Focus groups
 - C) Scorecards
 - D) Potential distortions (e.g., subjectivity of end user, internal training, validity of data)
 - E) Benchmarking
 - F) Weighted-point
 - G) Categorical
 - H) Cost-ratio
 - I) Total acquisition cost
- 5) Legal requirements
- 6) Supplier capacity and capabilities
- 7) Various quality processes
 - A) Six Sigma
 - B) ISO
 - C) Software Engineering Institute (SEI)
 - D) SPC
 - E) Process capability (Cpk)

Exam 3: Leadership in Supply Management

3-A. Leadership

3-A-1

Represent the supply management organization in decisions related to the organization-wide or project objective setting, budgeting, staffing and policies.

Knowledge of:

- 1) Supply management organization mission, processes, capabilities
- 2) Definition of customer requirements
- 3) Corporate processes and organizational dynamics
- 4) Influence
- 5) Internal negotiations and synergies

3-A-2

Develop and implement business plans that will meet customer service, corporate profit and return on equity goals.

Knowledge of:

- 1) Corporate goals
- 2) Elements of a business plan
- 3) Concept of goal alignment
 - A) Internal
 - B) External
- 4) Product price structure
- 5) Contribution to profit
- 6) Business planning process
- 7) SWOT analysis
 - A) Governmental
 - B) Environmental
 - C) Market
 - D) Emerging supply chain practices
- 8) Financial measures and other metrics

3-A-3

Develop, implement and monitor a strategic supply management plan and operating plan based on market conditions, business needs and available resources.

Knowledge of:

- 1) Elements of a strategic supply plan
- 2) Elements of an operating plan
 - A) Forecasts
 - B) Budget
 - C) Staffing plan
 - D) Metrics

3-A-4

Plan/develop/provide operating policies, guidelines and procedures. Modify as necessary in order to achieve the optimal structure.

Knowledge of:

- 1) Nature of management control
 - A) Before-the-fact controls
 - 1.0 Budgets
 - 2.0 Plans
 - 3.0 Business continuity
 - 4.0 Forecasts
 - 5.0 Policies/procedures manual
 - B) During-the-fact controls
 - 1.0 Key performance indicators
 - 2.0 Periodic reports
 - 3.0 Procedures reviews
 - C) After-the-fact controls
 - 1.0 Audits/customer surveys
 - 2.0 Periodic reports
 - 3.0 Procedures reviews
- 2) Best practices

3-A-5

Develop/implement changes to the organization's supply management policies as needed.

Knowledge of:

- 1) Organizational policies and procedures
- 2) The scope of the supply management process (as defined by ISM) identification, acquisition, access, positioning and management of resources and related capabilities the organization needs or potentially needs in the attainment of its strategic objectives. Includes the following components: distribution, inventory control, logistics, materials management, product development, strategic sourcing, procurement/purchasing, quality, receiving, supply management, transportation/traffic/shipping and warehousing
- 3) The role of supply management in organizational strategies
- 4) Management of the change process (change management)
- 5) Legal ramifications

3-A-6

Participate in company acquisitions and/or mergers and/or divestitures to assure the continuity of supply and capture synergy opportunities.

Knowledge of:

- 1) Methods of evaluating assets/corporate value
 - A) Contractual issues
 - 1.0 Assignment consent
 - 2.0 Confidentiality
 - 3.0 Due diligence
 - 4.0 Current contractual obligations
 - 5.0 Financial assessments
 - B) Management of redundancy and complexity
 - C) Liability exposure
 - D) Divestiture of assets
 - E) Global economic considerations

3-A-7

Represent the supply organization in meetings with corporations, government agencies, professional associations and other organizations.

Knowledge of:

- 1) Meeting dynamics
- 2) Issues in the external role and perception of supply management
- 3) Professional decorum
- 4) Feedback to management
- 5) Confidentiality
- 6) Legal restrictions (e.g., antitrust, export)

3-A-8

Lead or participate in cross-functional and/or multifunctional teams (e.g., project management, process improvement, international teams).

Knowledge of:

- 1) Purpose of teams
 - A) Role of supply management in teams
 - 1.0 Support/service/information
 - 2.0 Project management
 - 3.0 Leadership
 - 4.0 Facilitation
 - B) Advantages/disadvantages of teams
 - 1.0 Consensus building
 - 2.0 Time considerations
 - 3.0 Ownership issues
 - 4.0 Managing or introducing change
 - 5.0 Groupthink
 - 6.0 Synergy
 - C) Phases of team building
 - D) Conflict resolution
 - E) Personality profiles

3-A. Leadership

3-A-8 Continued

- F) Effectiveness measures
 - 1.0 Individual
 - 2.0 Team

3-A-9

Disseminate information and promote training related to supply management policies and procedures.

Knowledge of:

- 1) Knowledge assessment and situational analysis
- 2) Compliance metrics
- 3) “The Learning Organization” concept

3-A-10

Market the value of strategic sourcing and sourcing strategies and initiatives to management and internal customers.

Knowledge of:

- 1) Level of communication
 - A) Senior management
 - B) Internal customers
- 2) Methods of communication
 - A) Feedback mechanisms
 - B) 360 survey
 - C) Presentation skills
 - D) Intranet

3-A-11

Evaluate the supply management organizational structure and modify as necessary in order to achieve the optimal structure.

Knowledge of:

- 1) Functional impact of organizational structure
 - A) Centralized/decentralized/hybrid models

- B) Product/brand management
- C) Geographic

- 2) Organizational types and their implications

- A) Functional
- B) Matrix
- C) Project

- D) Category/commodity management

- 3) Key Issues

- A) Spend management
- B) Aggregation management
- C) Service to end users

- 4) Workload distribution

- A) Commodity or class
- B) Department
- C) Special project
- D) Volume
- E) In rotation
- F) Type of contract
- G) Staff expertise
- H) Supplier

3-A-12

Hire, develop, retain, promote and/or dismiss supply management personnel.

Knowledge of:

- 1) Organizational human resource policies and procedures
- 2) Organization skill set requirements
- 3) Position skill set requirements
- 4) Issues in selection and recruitment
 - A) Knowledge, skills and aptitudes of applicants
 - B) References, experience and training
 - C) Questions in the interview process (e.g., behavior-based interview techniques)

Exam 3: Leadership in Supply Management

- 5) Issues in employee promotion
 - A) Standards/certification
 - B) Career advancement
 - C) Advantages/disadvantages of promoting within
 - D) Advantages/disadvantages of recruiting/hiring outside employees
 - E) Training needs
 - F) Succession planning
 - G) Objective attainment
- 6) Issues in the termination of employees
 - A) Consistent documentation/evaluation
 - B) Adherence to established human resource policies/procedures/union requirements/ due process
 - C) Quantifying/qualifying discussion to terminate employee
 - D) Outplacement
 - E) Exit interviews
- 7) Issues in employee retention
 - A) Recognition/value
 - B) Job satisfaction
 - C) Compensation/benefits
 - D) Career progression
 - E) Work/life balance
 - F) Work environment
- 8) Legal issues in employment and interviewing

3-A-13

Supervise and lead human resources to achieve initiatives.

Knowledge of:

- 1) Issues in organizational management and administration
 - A) Delegation of authority and responsibility
 - B) Chain of command

- C) Span of influence/span of information dissemination
- D) Theories of management
 - 1.0 General theories
 - 2.0 Motivational theories
- E) Diversity in the workplace
- F) Reward and recognition programs
- 2) Group dynamics
- 3) Leadership principles
- 4) Change management techniques

3-A-14

Conduct/authorize job training for the professional development of the staff.

Knowledge of:

- 1) Determination of training and development needs
 - A) Needs and skills assessment
 - B) Gap analysis
 - C) Designing and planning training programs
- 2) Types of job training (functional orientation)
 - A) Orientation
 - B) On-the-job training
 - C) Sponsor/mentor system
 - D) Classroom training
 - E) Functional rotation
- 3) Professional certification
- 4) Formal education/advanced degrees
- 5) Professional association involvement

3-A-15

Develop/manage/evaluate/measure relationships with internal departments.

Knowledge of:

- 1) Role/perception of supply management within the organization

3-A. Leadership

3-A-15 Continued

- 2) Establishment of trust and credibility
- 3) Feedback techniques
 - A) Surveys
 - B) Interviews
- 4) Influence techniques
- 5) Leadership techniques
- 6) Internal business partners roles, goals and objectives
- 7) Joint accountability

3-A-16

Develop/utilize criteria for evaluating supply management department performance.

Knowledge of:

- 1) Organizational expectations of supply management
 - A) Congruence with organizational objectives
 - B) Congruence with supplier and customer objectives
 - C) Scorecard
- 2) Reasons for departmental performance appraisal
 - A) To determine departmental effectiveness in meeting organizational needs
 - B) To determine effectiveness of department management
 - C) To measure improvement/deterioration
 - D) To provide incentives for improvement
 - E) To determine resources needed for improvement
 - F) To determine if value is added to the process
- 3) Steps in department-level evaluation
 - A) Identify department objectives

- B) Identify criteria for success
 - C) Identify appraisal factors
 - D) Internal audits/self-governance/self-assessment
 - E) Obtain supplier feedback
 - F) Process benchmarking
 - G) Best practice studies
 - H) Exercising management control in response to results
- 4) Concepts of a strategic supply management department
 - 5) Evaluation of outsourced supply functions
 - 6) Evaluation of feasibility and impact of outsourcing supply functions

3-A-17

Conduct role design evaluation and potential job redesign requirements.

Knowledge of:

- 1) Organization functional requirements
- 2) Position functional requirements
- 3) Elements of job design
- 4) Staffing implications
- 5) Span of influence

3-A-18

Create and manage a succession plan, allocating work assignments in such a way as to provide career development and growth opportunities.

Knowledge of:

- 1) Cross-training
- 2) Mentoring
- 3) Professional development
- 4) Delegation of leadership opportunities
- 5) Human resources policies, procedures and planning
- 6) Elements of a succession plan

- 7) Organizational structure
- 8) Educational opportunities
- 9) Job rotation

- 5) Environmental risk
- 6) Technical risk

3-B. Risk and Compliance

3-B-1

Develop, implement and manage a risk profile and strategies in accordance with existing contracts, applicable laws, regulations and organizational policy.

Knowledge of:

- 1) Classifications of risk stakeholders
- 2) Contractor tier considerations
 - A) Prime contract
 - B) Subcontract
 - C) General
- 3) Probability estimation procedures
- 4) Risk management procedures
 - A) Risk planning
 - B) Risk assessment
 - 1.0 Risk profile
 - C) Risk mitigation
 - D) Risk monitoring

3-B-2

Develop and implement a risk management and/or claims management program (i.e., copyright violation, patent infringement, harassment).

Knowledge of:

- 1) Financial risk
- 2) Operational risk
- 3) Brand/reputation risk
- 4) Legal risk
 - A) Employment
 - B) Intellectual property

3-B-3

Implement supply management processes in consideration of legal issues.

Knowledge of:

- 1) Legal aspects of various supply management processes to include
 - A) Law of agency
 - B) Definition of agent
 - C) Fiduciary duty
 - D) Limits of authority
 - E) Actual vs. apparent authority
 - F) Ratifications
- 2) Role of legal counsel
- 3) Delegation of authority (e.g., financial levels, budget holder)
- 4) Regulations influencing the development of solicitations
 - A) Uniform Commercial Code (UCC) Article 2, Sales
 - B) Antitrust and trade regulation
 - 1.0 Sherman Antitrust Act
 - 2.0 Clayton Act
 - 3.0 Robinson-Patman Act
 - 4.0 Federal Trade Commission (FTC) Act
 - C) Regulation of federal procurement and public projects
 - 1.0 Federal Acquisition Regulations (FAR)
 - 2.0 False Claims Act
 - 3.0 Davis-Bacon and related acts
 - 4.0 Prompt Payment Act
 - 5.0 Service Contract Act
 - 6.0 Walsh-Healey Public Contracts Act

3-B. Risk and Compliance

3-B-3 Continued

- 7.0 Small Business Act
- 8.0 Buy American Act
- 9.0 Freedom of Information Act
- D) Regulation of International Commerce
 - 1.0 Trade Agreements Act of 1979
 - 2.0 Foreign Corrupt Practices Act
 - 3.0 North American Free Trade Agreement (NAFTA)
 - 4.0 General Agreement on Trade and Tariffs (GATT)
 - 5.0 United Nations Convention on Contracts for the International Sale of Goods (CISG)
 - 6.0 Other international laws/rulings
- E) Americans With Disabilities Act (ADA)
- F) Agency regulations/ rulings (industry specific)
- G) Government price support regulations
- H) Other federal/state/local laws — or country-specific

3-B-4

Develop/implement/maintain a database/physical filing system of relevant information.

Knowledge of:

- 1) Regulatory requirements for records management
- 2) Organizational policy for records management/ database management
- 3) Data management system requirements
- 4) Data classification
- 5) Data management capabilities
- 6) Domestic and international issues
- 7) Types of data

- A) Specifications
- B) Suppliers
- C) Supplier performance
- D) Products/services
- E) Contracts
- F) Spend
- G) Tariffs
- H) Routing guides
- I) Technical assistance agreements
- J) Other issues

3-B-5

Verify the existence, accuracy and completeness of relevant financial transactions and commitments to third parties.

Knowledge of:

- 1) Domestic and international regulatory requirements (e.g., Federal Energy Regulatory Commission (FERC), Sarbanes-Oxley Act (SOX))
- 2) Organizational financial reporting policies

3-B-6

Assess risk from end of life cycle issues in the market place and establish proper risk mitigation contingency plans for all components in the product.

Knowledge of:

- 1) Life-cycle costing
- 2) Product marketing strategy
- 3) Market intelligence
- 4) Collaboration with suppliers
- 5) Risk tolerance of organization

3-B-7

Manage and control the storage/disposal of hazardous/regulated materials and related documentation.

Knowledge of:

- 1) Laws/regulations related to documentation, storage, handling, transportation and disposal (“cradle to grave”)
- 2) Risk
 - A) Contractual
 - B) Insurance
 - C) Legal
- 3) Ethical issues
- 4) Audit
 - A) Internal
 - B) Supply chain
 - C) Reporting
 - D) Certification (e.g., transport, storage, abatement)
- 5) Organization values and policies
 - A) Collection programs
- 6) ISM Principles of Social Responsibility and Audit
- 7) Customer-driven requirements

3-B-8

Comply with programs that prevent and respond to discrimination or harassment.

Knowledge of:

- 1) Federal/state/local laws and regulations
 - A) Protected classes: race, color, religion, sex, national origin, disability or age
 - B) Sexual harassment
- 2) Organizational policies and procedures
- 3) Court rulings pertaining to employment discrimination

- 4) Other country equivalent laws and Regulations
- 5) Diversity training

3-C. Strategic Sourcing

3-C-1

Establish and execute strategic sourcing plans, in congruence with organizational objectives and sourcing strategies.

Knowledge of:

- 1) Internal organization conditions related to sourcing strategies.
 - A) Operational strategies
 - B) Financial strategies
 - C) Marketing strategies
 - D) Supply strategies
 - E) Technology strategies
- 2) Market analysis
- 3) Supplier marketing strategies
- 4) Risk/benefit analysis
- 5) Roll-out plan
- 6) Communication plan
- 7) Phased timeline approach

3-C-2

Establish and standardize strategic sourcing procedures and business process improvements.

Knowledge of:

- 1) Regression analysis
- 2) Processes to disseminate and communicate the policy and procedures
- 3) Technology and application tools
 - A) Applications
 - B) Analytical
- 4) Analytical skills
- 5) Sourcing related technologies

3-C. Strategic Sourcing

3-C-2 Continued

- 6) Change management skill

3-C-3

Identify, evaluate, select and implement technologies that support supply management functions throughout the organization.

Knowledge of:

- 1) Business process design
- 2) Market analysis for selection of appropriate e-solutions
- 3) Methodologies for selection, implementation and adoption by the organization
 - A) Assessment of current systems
 - B) e-Business solutions
- 4) Contemporary e-sourcing tools
 - A) Purchase order systems
 - B) e-RFx
 - C) EDI
 - D) Reverse auctions
 - E) e-Design
- 5) Procedures for managing an online event
- 6) Spend analysis
- 7) Contract management
- 8) Supplier performance measurement

3-C-4

Leverage spend through identification, prioritization, development and execution of strategies.

Knowledge of:

- 1) Implications of organizational structure
 - A) Stakeholders
 - B) Steering committee

- 2) Opportunity assessment

- A) Spend analysis
- B) Cost analysis
- C) Risk analysis
- D) Market analysis (i.e., monopoly, oligopoly, etc.)
- E) Requirements analysis (e.g., standardization, consolidation)

- 3) Leveraging strategies

- A) Aggregating spend
- B) Process improvements
- C) Innovative thinking

- 4) Factors for prioritizing decisionmaking

- A) Savings
- B) Organizational capacity
- C) Organizational culture
- D) Constraints

3-C-5

Conduct analysis to determine insourcing or outsourcing strategy.

Knowledge of:

- 1) Procedures for conducting make-or-buy or outsourcing analyses
 - A) Determining feasibility
 - B) Determining need
 - C) Methods/processes
 - 1.0 Analysis of components
 - 2.0 Break-even analysis
 - 3.0 Cost estimation processes
 - 4.0 Incremental cost analysis
- 2) Factors influencing outsource/make-or-buy/offshoring decisions
 - A) Strategic factors
 - 1.0 Long-term supply implications

- 2.0 Core competencies and strategies
 - 3.0 Supply risk
 - 3.1 Degree of control required
 - 3.2 Security of the process
 - 4.0 Total cost of ownership results
 - 5.0 Competitive issues
 - B) Reduction in assets
 - C) Flexibility to change
 - 3) Labor and other organizational constraints
 - A) Quality considerations
 - B) Supplier current and future capability
 - C) Socioeconomic goals/objectives
 - D) Capital investment
 - 4) Offshoring
 - A) Low-cost country sourcing
 - B) Country analysis
 - 5) Privatization
 - A) Definition
 - B) Applicability
 - C) Political considerations
 - D) Public/private partnerships
 - 6) Post-audit evaluation of decision
- 4) Product pricing strategy
 - A) Margins
 - 5) Financial and information flows
 - 6) Critical service factors
 - 7) Customer segmentation (derived demand and market segmentation)
 - 8) Supplier collaboration processes

3-C-6

Create new systems and process improvements to help the organization meet sales goals.

Knowledge of:

- 1) Product and technology roadmaps of supplier and customer
 - A) Sales goals
- 2) Data on sales performance to plan
 - A) Point-of-sale information
- 3) Integration requirements between supplier and customer systems