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# EXAM CONTENT MANUAL

# CSCP

CERTIFIED SUPPLY CHAIN PROFESSIONAL



# APICS CSCP Exam Content Manual Version 5.0

Visit [ascm.org/ecmerrata](http://ascm.org/ecmerrata) for APICS CSCP Exam Content Manual errata.  
Internet links cited in the bibliographic references can be found in a more usable format on the  
ASCM website at [ascm.org/CSCP](http://ascm.org/CSCP).

The references in this manual have been selected solely on the basis of their educational value to the APICS CSCP certification program and on the content of the material. APICS does not endorse any services or other materials that may be offered or recommended by the authors or publishers of books and publications listed in this manual.

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The Association for Supply Chain Management (ASCM) is the global leader in end-to-end supply chain organizational transformation, innovation and leadership. As the largest non-profit association for supply chain, we are an unbiased partner connecting people around the world to the newest insights and solutions on all aspects of supply chain. ASCM transforms enterprises and empowers people with industry-recognized, global standards - like APICS and SCOR - to optimize their supply chains, secure their competitive advantage and positively impact the world.

# Acknowledgments

ASCM would like to extend our gratitude to the following subject matter experts for their voluntary contributions, time commitment, expertise, and passion to the continued development of the CSCP program.

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We would also like to thank all task force volunteers, including ASCM Corporate Members, for their support in the advancement and education of supply chain and operations management.

ASCM relies on the support of volunteers to maintain the quality and prestige of the APICS certification programs.

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## Letter to Candidates

Dear Candidate:

On behalf of ASCM and the members of the Certified Supply Chain Professional (CSCP) Exam Subcommittee, I want to thank you for your interest in the APICS CSCP program. ASCM is the global leader and premier source of the body of knowledge in operations management, including production, inventory, supply chain, purchasing, and logistics. Since 1957, individuals and companies have relied on ASCM for its superior training, internationally recognized certifications, comprehensive resources, and worldwide network of accomplished industry professionals.

The CSCP program is primarily intended for professionals in supply chain management and is designed to test the candidate's knowledge of and ability to apply the supply chain management body of knowledge to streamline operations. It is the most widely recognized program for operations and supply chain management professionals around the globe. Since its launch in 2006, more than 30,000 professionals in more than 100 countries have earned the CSCP designation. By earning the CSCP credential, candidates have demonstrated their mastery of supply chain management best practices and have distinguished themselves as an industry expert with specialized, high-level knowledge and skills.

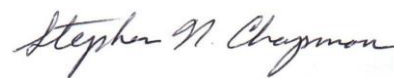
The CSCP program will help you advance your career while giving you validated foundational knowledge to assist in improving your company's competitive position and profitability. The program takes a broad view of the field, extending beyond internal operations to encompass all the steps throughout the supply chain—from the

supplier to the company to the end consumer and the reverse flow of products and materials for the purpose of managing returns, refurbishing, or recycling. The program provides you with the knowledge to effectively manage the integration of these activities to maximize a company's value chain.

In recent years there have been numerous and extensive changes in technology and environmental conditions that have impacted and will likely continue to impact supply chain practices. During 2020 and 2021, the CSCP Exam Subcommittee conducted an extensive Job Task Analysis (JTA) involving practicing supply chain professionals across many industry types. The committee carefully analyzed the JTA results and used them to update and revise the exam content outline. This current exam content manual represents the result of that extensive and comprehensive work.

This exam content manual provides you with an overview of the program, an outline of its body of knowledge, key terminology, and references. The outline is divided into eight diagnostic areas, and the relative emphasis of each of the areas is indicated by a percentage figure. A sample of exam questions is also provided, which demonstrates the type of questions you will encounter on the exam. The exam content manual should not be the only reference you use to prepare for the CSCP exam; however, it should be the first.

We wish you success in your pursuit of the CSCP designation.



Stephen N. Chapman, Ph.D., CPIM-F, CSCP  
CSCP Exam Subcommittee Chair

## Introduction

This exam content manual (ECM) provides guidance for individuals preparing for the CSCP certification examination. The objective of this manual is to outline the APICS CSCP tested body of knowledge.

The main section of this manual begins with a statement about the scope of the subject matter, followed by a descriptive outline of the content. Key terminology and a bibliography of references are also provided. The section concludes with sample questions similar to those that appear on the examination along with the correct answers for the sample questions and brief explanations as to why they are correct.

The recommended procedure for mastering the subject matter is to:

- review the content outline, which defines the scope of the material, and
- study each topic area using the suggested references.

Reading periodicals, such as SCM Now magazine and the SCM Impact e-newsletter, will also help you keep up to date about changes in the industry.

At the end of each major section of the content outline is a list of the references that apply to the topics in that section. The first number indicates the sequence number for the reference in the bibliography section, and the numbers in parentheses indicate the relevant chapter(s) within that reference.

Candidates should understand the definitions of the key terminology and the application of the outlined tools, processes, and techniques.

## About the APICS CSCP Examination

The APICS CSCP exam consists of 150 multiple-choice questions, of which 20 are pre-test questions that do not contribute to the total score but are used for statistical purposes only. Pre-test questions are continuously introduced and evaluated statistically as part of an industry best practice for certification program exam development. Pre-test questions appear similar to the scored questions and are randomly distributed throughout the exam. Candidates should answer all exam questions. There is a 3 ½ hour time limit for the exam.

For more information about testing and registration policies and procedures, please visit [ascm.org/cscp](http://ascm.org/cscp) and the [APICS Exam Handbook](#).

### CSCP Eligibility

To be eligible to take the APICS CSCP exam, a candidate must meet at least **one** of the following criteria:

- Possess at least three years of related business experience
- Hold a conferred bachelor's degree or an international equivalent
- Hold an active CPIM, CPIM-F, CIRM, SCOR-P, CPM, CPSM, CTL, CLTD, or CLTD-F certification

Candidates must submit an online application which can be accessed through My Account prior to scheduling a CSCP exam. ASCM reserves the right to randomly audit candidates' qualifications and experience prior to the approval of an eligibility application. Candidates who have been randomly chosen for audit will also receive an immediate notification when applying along with detailed audit application instructions.

## Question Format

All of the questions on the CSCP examination are intended to test a candidate's understanding of the CSCP body of knowledge. The questions frequently require the candidate to select the best of four choices or complete a calculation based on the information given. They may also ask the candidate to illustrate their understanding of a concept, process, or procedure. These questions may require the examinee to make finer or more in-depth distinctions than the exercises or items presented in a course. It is helpful to understand the various formats of questions on the examination. Practice questions can be found in the Sample Questions section of this ECM.

## Taking the Test

The test is designed to evaluate a candidate's knowledge of the subject matter. Therefore, the key to success is a thorough understanding of the subject matter. All questions are based on the current CSCP body of knowledge as defined in the exam content manual.

When you begin your exam, read the directions carefully. Be sure you understand the directions before you begin to answer any questions.

Read each question carefully and thoroughly. If a question includes stimulus material – such as a table, graph, or situation – be sure to study it before answering the question. Avoid assuming that information is not provided, assuming that you know what is being asked without reading the question completely, or “second-guessing” the question. Every effort has been made to avoid misleading wording and to provide sufficient information for each question.

Choose the best answer from the choices given. Do not look for hidden tricks or exceptions to the norm. For each question, one and only one of the four choices represents the correct answer.

Once you begin the test, approach the questions in order, but do not spend too much time on those that are unfamiliar or seem difficult to you. Go on to the other questions and return to the difficult ones later. If you have some knowledge about a particular question, you may be able to eliminate one or more choices as incorrect. Your score on the test will be based on the number of questions you answer correctly, with no penalty for incorrect answers; therefore, it is to your advantage to guess rather than not answer a question. Avoid changing an answer unless you are absolutely certain you marked the wrong answer.

## Interpreting Test Scores

Scoring is based on your correct responses. There is no penalty for incorrect answers. The omission of an answer will be counted the same as an incorrect answer.

The CSCP exam scaled score range is 200–350.

**200 – 299: Fail**

**300 – 350: Pass**

The minimum passing score is 300. For each exam, candidates will receive a final exam score along with diagnostic information by topic area on their performance. All APICS exams use the above scale for communicating scores to candidates. Using a scale is a testing industry best practice and allows scores to be represented consistently across different forms or versions of the same exam. This accounts for variances in difficulty across different exam forms and ensures fairness and accurate reporting to candidates. For more information on Scaled Scoring, please see the following [document](#).



## APICS Certified in Supply Chain Professional Fellow (CSCP-F)

The distinguishing characteristic of a Certified in Supply Chain Professional Fellow (CSCP-F) is the willingness to share acquired knowledge with others through presenting, teaching, publishing, and participating in ASCM volunteer activities. This knowledge sharing must take place above and beyond a candidate's normal job duties and be directly related to the APICS body of knowledge.

An active CSCP certification is required to be eligible for CSCP-F status. To obtain the APICS CSCP-F designation, an application form must be completed and submitted online to the ASCM corporate office. Points are awarded based on the following criteria: APICS certifications earned (with additional points for fellow-level exam scoring of 320 or greater on an APICS certification exam), presentations, published works, classroom teaching, and ASCM volunteer activities.

To apply for the CSCP-F certification, please visit [ascm.org/fellow](http://ascm.org/fellow).

## Studying for the APICS CSCP Exam

ASCM offers several resources to help individuals prepare for the APICS CSCP examination.

### APICS CSCP References

**Bibliography.** The APICS CSCP Examination Subcommittee has identified a number of references for the APICS CSCP examination. These references are used by both the exam subcommittee and CSCP courseware subcommittee in the development of exam questions and preparation materials. These are listed in the Bibliography section of this manual. All the references contain excellent material that will assist in understanding the body of knowledge and test preparation. For additional information on the APICS CSCP

references, visit the [CSCP Exam References](#) page on the website.

A candidate may discover that the material covered in the chapters of one reference duplicates material covered in another reference. Both sources are included as references to allow candidates some discretion in selecting test preparation materials that they find accessible and understandable.

In deciding if a single reference is sufficient, candidates should assess their own level of knowledge against both the descriptive exam specifications and the detailed topic list contained in the content outline. If there are any areas of weakness, the candidate should consult another reference as part of the test preparation process.

**Content outline.** The content outline provided in this ECM should be considered a primary resource for exam preparation. It provides an overview of the major topics included in the exam, as well as a list of the concepts that are relevant to that topic.

**APICS Dictionary.** The *APICS Dictionary* is an essential reference to the exam content manual and APICS exams. Within the profession, terminology varies among industries, companies, and the academic community. The exam uses standard terminology as defined in the *APICS Dictionary* and the Supplemental Glossary section in this manual. Recognizing the terms and understanding their definitions are essential.

### Terminology

In studying for the APICS CSCP certification exam, candidates may discover multiple terms used to denote the same technique. An example of this is aggregate planning and production planning. ASCM and the certification exam subcommittees have worked to provide consistency with preferred terminology. However, synonyms are often used by authors in the various references used to compile the body of knowledge. Candidates are encouraged to be familiar with

all terms and concepts listed within the outline and key terminology section, using the *APICS Dictionary* as the primary guide for definitions. The Supplemental Glossary and Amended Terms, included in this manual, provide needed additional information identified by the exam subcommittee.

## **Additional Resources for APICS CSCP Candidates**

In addition to the cited references, it may be helpful for you to pursue chapter-sponsored courses, college courses, ASCM workshops, self-study courses, or courses offered by the ASCM network of international partners as a means of learning the body of knowledge tested in the certification program. A wide variety of courses and materials are available. As with any investment, you should research various learning options before choosing one.

### **APICS CSCP Learning System**

The APICS CSCP Learning System is a comprehensive professional development and certification preparation program. This self-directed program combines print material and online interactive tools. This system is also offered in instructor-led formats.

The APICS CSCP Learning System does not “teach the test” and in many areas *reviews* concepts but does not teach concepts. The APICS CSCP Learning System provides a thorough review of the subject matter, but it should not be used without the most current APICS CSCP Exam Content Manual (ECM) as a means to direct the candidate’s study. There will likely be some content in the APICS CSCP Learning System not covered by the exam; conversely, there will likely be some content in the exam not covered by the learning system. No CSCP exam questions are derived from the learning system. Thus, it is essential for candidates to use the current ECM in their studies.

## **APICS CSCP Instructor-Led Review Courses and Educational Programs**

The instructor-led format combines the APICS CSCP Learning System print and online components with the leadership of a qualified instructor; peer collaboration; company networking; and a structured, set schedule to keep participants on track. Learn more about APICS recognized instructors at [apics.org/recognizedinstructors](http://apics.org/recognizedinstructors) or find local ASCM partners that provide APICS CSCP courses at [ascm.org/learning-opportunities](http://ascm.org/learning-opportunities).

ASCM also offers a variety of educational programs. For a complete list of learning opportunities and resources, please visit [ascm.org](http://ascm.org).

## **Job Task Analysis**

The subject matter in the CSCP exam content outline is created and validated by means of a Job Task Analysis (JTA) study. A JTA is a process of creating a survey to analyze which tasks within a specific role are most important. They are used in the credentialing industry to create and validate certification programs and their content by ensuring that the respective bodies of knowledge are applicable and up-to-date with current industry standards and trends.

In following testing industry standards and best practices, ASCM regularly conducts a JTA for each of its certifications. For the CSCP program, this process involves bringing together a diverse group of industry-specific professionals that represent all major aspects of the current supply chain management responsibilities. These professionals work to identify the knowledge, skills, and tasks deemed important in the practice of designing, implementing, and managing an effective modern supply chain. These inputs are then used to create a survey that is distributed to supply chain professionals globally to validate the content identified by the task force. The results of this industry-wide survey are then analyzed by the task force, resulting in a

recommendation to the CSCP Exam Subcommittee for content updates.

The JTA process is vital to all high-stakes certifications as it validates the existing body of knowledge and identifies new areas for addition and updates to ensure that the content is at the cutting edge of the industry. The last JTA update for the CSCP program took place in 2020. This update was based on the results of a survey that was responded to by over 3,600 industry professionals, representing a diverse mix of job functions, industries, organization sizes, work experience, and countries of residence.

## Exam Content vs. Courseware

Certification has a very different purpose than education. It is to determine whether a candidate meets a minimum set of requirements in relation to a body of knowledge. Certification exams test an individual's knowledge and ability to apply that knowledge to specific situations. Exam questions frequently require the candidate to select the best of the four choices or complete a calculation based on the information given. They may also ask the candidate to illustrate their understanding of a concept, process, or procedure. While some exam questions may simply ask the candidate to demonstrate their recollection of knowledge from the content outline, they will more often require the candidate to apply the body of knowledge by evaluating and/or analyzing a scenario and determining the best solution. These questions will frequently require the candidate to make finer distinctions than the exercises or items presented in a review course.

ASCM uses a rigorous process for creating its certification exams and courseware. Exams and courseware study materials are developed separately to maintain the integrity of the exam process.

APICS exam subcommittees define the contents of the Exam Content Manual (ECM), which determines the areas that will be tested

in APICS certification exams. The ECM defines the body of knowledge that can be tested, and every exam question is linked to the ECM content. The APICS exam committees also select the references that will be used for exam development. Additionally, the subcommittees work with ASCM staff in the creation and maintenance of exam forms.

A separate courseware subcommittee, in conjunction with ASCM staff and a third-party vendor, create the learning systems using the ECM and the recommended references.

Courseware developers and/or instructors may believe that additional material needs to be taught or included to ensure understanding of the body of knowledge. They also may decide that a concept or term is adequately covered by the definitions in the *APICS Dictionary* or content outlines and not cover it in the course. These differences sometimes lead candidates to perceive a disconnect between the courseware and the exam when, in fact, they are both covering the same body of knowledge.

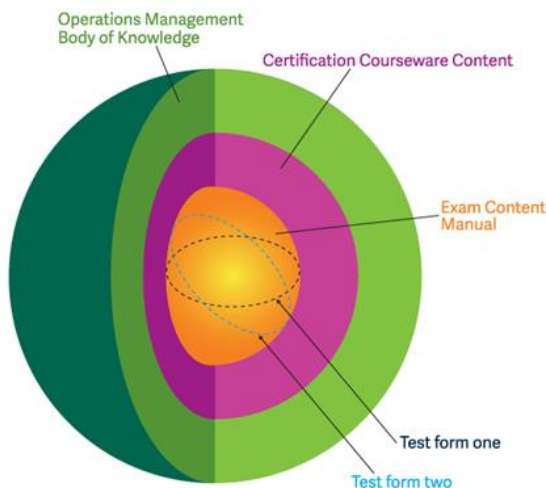
Question and answer sets for APICS exams are written by exam subcommittee members and other subject matter experts who have earned APICS certification designations. The exam subcommittees must identify the specific entry in the ECM that is being tested and one or more of the references listed in the ECM that support the correct answer. All exam questions and answers are reviewed and typically revised by APICS exam subcommittee members. Exam subcommittees, ASCM Test Development staff, and a third-party exam development contractor all review the potential test questions for correctness of format, spelling, and grammar.

A potential test question may be reviewed multiple times before it actually appears on an examination. Potential test questions initially appear on exams in what is referred to as pre-test status in order to collect statistics on the questions. It is not until a question is deemed to be statistically valid that it will appear as a scored question on an exam and

count towards a test-taker's exam score and result.

Because each test form has a limited number of questions, it samples representative areas of the body of knowledge as defined by the ECM. While each test form is different, all areas tested are contained within the body of knowledge as defined by the ECM.

The following graphic is a representation of the type of relationship between the Operations Management Body of Knowledge (OMBOK), courseware / Learning Systems, ECMs, and different exam forms.



## APICS CSCP Certification Maintenance: Continuing Professional Development

To promote professional growth and lifelong learning, ASCM requires certification maintenance every five years with the first five-year cycle beginning on the date the certification is earned.

CSCP-certified individuals are required to collect 75 certification maintenance points (or 100 points for CSCP Fellows) in these five-year intervals to keep their certification active for an additional five years. If they do not submit their maintenance points via the APICS certification maintenance application by the maintenance due date, their certification will

lapse into suspension. Please see the [APICS Certification Maintenance Handbook](#) for more information regarding detailed steps on how to maintain certification.

### The Importance of Certification Maintenance

Maintaining your APICS CSCP certification demonstrates one's commitment to achieving the highest level of professional development and standards of excellence.

The APICS CSCP certification maintenance program upholds both the objectives of the APICS CSCP program and the APICS vision to promote lifelong learning. This flexible program recognizes that individuals are at various levels in their careers, come from many industries, have different educational needs and career goals, and have varying access to continuing education. Thus, requirements for maintaining certifications can be met through multiple sources and a variety of professional development activities. These sources and activities are intended to help prepare for the challenges ahead and maintain a professional edge by:

- preserving the currency of hard-earned certification credentials
- expanding your knowledge of the latest industry practices
- exploring new technology solutions
- reinforcing skills
- improving job performance
- demonstrating commitment to excellence
- increasing competitive advantage

In order to ensure that CSCP-certified individuals remain up to date on industry trends and are committed to continued professional growth, certification maintenance is required for their certification to remain active.

For complete details on how to maintain your APICS CSCP designation, please visit [ascm.org/maintenance](https://www.ascm.org/maintenance).

## ASCM Code of Ethics

When you begin the exam registration process, you will be asked to pledge to abide by the ASCM Code of Ethics. Once certified, you pledge to continue your education to increase your contribution to the supply chain management profession.

### The ASCM Code of Ethics is as follows:

- Maintain exemplary standards of professional conduct;
- Do not misrepresent your qualifications, experience, or education to ASCM or others you serve in a professional capacity;
- Respect and do not violate the United States Copyright of all ASCM materials, including but not limited to courseware; magazine articles and other ASCM publications; ASCM conference presentations; and CPIM, CSCP, CLTD, and SCOR-P examination resources. In this same spirit, you must not violate the copyright of other organizations and individuals in your professional capacity;
- Abide by all of ASCM's published exam bulletins and exam procedures, including all of the rules and regulations of any third party that administers an ASCM examination;
- Do not engage in or sanction any exploitation of one's membership, company, or profession;
- Encourage and cooperate in the interchange of knowledge and techniques for the mutual benefit of the profession;
- In your professional capacity, respect the fundamental rights and dignity of all individuals. You must demonstrate sensitivity to cultural, individual, and role differences, including those due to age, gender, race, ethnicity, national origin, religion, sexual orientation, disability, language, and socio-economic status;
- In your professional capacity, do not engage in behavior that is harassing

or demeaning to others based on factors, including but not limited to age, gender, race, ethnicity, national origin, religion, sexual orientation, disability, language, or socio-economic status;

- Adhere to this Code of Conduct and its application to your professional work. Lack of awareness or misunderstanding of an ethical standard is not itself a defense to a charge of unethical conduct;
- Contact the Ethics Committee when uncertain whether a particular situation or course of action violates the Code of Conduct; and
- Do not become the subject of public disrepute, contempt, or scandal that affects your image or goodwill.

Failure to abide by [ASCM Code of Ethics policy](#) may result in sanctions up to and including decertification.

## Bibliography and References for CSCP

All test candidates should familiarize themselves with the following references for this exam. The recommended references pertaining to the diagnostic area are listed at the end of each section of the content outline. The references listed below can be found online on the [CSCP Exam References](#) page. A complimentary digital copy of the *APICS Dictionary* is available to ASCM members in the online [Courses & Downloads](#) section of members' [My Account](#) page.

	References	Author(s)
1	<i>APICS Dictionary, 16th ed., 2019</i>	APICS
2	<i>Designing and Managing the Supply Chain: Concepts, Strategies &amp; Case Studies, 3rd ed., 2007</i>	Simchi-Levi, David, Philip Kaminsky, and Edith Simchi-Levi
3	<i>Making Sustainability Work: Best Practices in Managing and Measuring Corporate Social, Environmental and Economic Impacts, 2nd ed., 2014</i>	Epstein, Marc J., and Adriana Reic Buhovac
4	<i>Principles of Supply Chain Management, 2nd ed., 2015</i>	Crandall, Richard E., William R. Crandall, and Charlie C. Chen
5	<i>Purchasing and Supply Chain Management, 7th ed., 2020</i>	Monczka, Robert M., Robert B. Handfield, Larry C. Guinipero, and James L. Patterson
6	<i>Strategic Supply Chain Management: The Five Core Disciplines for Top Performance, 2nd ed., 2013</i>	Cohen, Shoshanah, and Joseph Roussel
7	<i>Supply Chain Logistics Management, 5th ed., 2019</i>	Bowersox, Donald J., David J. Closs, M. Bixby Cooper, and John C. Bowersox
8	<i>Supply Chain Risk Management: An Emerging Discipline, 2014</i>	Schlegel, Gregory L., and Robert J. Trent
9	<i>Technology in Supply Chain Management and Logistics: Current Practice and Future Applications, 2019</i>	Pagano, Anthony M., and Matthew Liotine
10	<i>United Nations Global Compact: Corporate Sustainability in the World Economy, 2014</i>	UN Global Compact
11	<i>United Nations Global Compact Management Model: Framework for Implementation, 2010</i>	Deloitte Touche Tohmatsu

**Content outline.** The content outline for the exam provides an overview of the major topics included in that module. Each major topic is denoted by a Roman numeral and is followed by a list of the references that are particularly relevant to that topic.

**Note:** At the end of each major section in the CSCP content outline is a list of the references that apply to the topics within that section. The first number indicates the sequence number for the references designated in each subject area within the content outline. For example, “7 (chapters 2-6)” means the reference, *Supply Chain Logistics Management, 5<sup>th</sup> ed., 2019*. Chapters 2, 3, 4, 5, and 6 of that reference contain content relevant to that subject matter.

# APICS Certified Supply Chain Professional (CSCP)

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## Scope of the Subject Matter

Please read the introductory material in this manual for essential information about the examination.

APICS CSCP covers concepts, strategies, processes, tools, and technologies applied to managing the end-to-end forward and backward flow of materials, information, and value in a supply chain.

The subject matter is organized into eight supply chain activities:

**Forecast and Manage Demand.** This section addresses the collection and analysis of all types of demand data, whether it is historical in nature or from outside the organization. Various forecasting techniques are utilized to provide future requirements, and sales and operations planning (S&OP) is used to align supply with demand.

**Manage the Global Supply Chain Network and Information.** This section focuses on the definition and management of the overall supply chain network and the flow of production, information, and funds. Various technology applications are used to manage the end-to-end supply chain and provide

visibility across supply chain partners. Accurate and timely supply chain data is critical to the supply chain, as well as means of measuring and reporting activities.

**Source Products and Services.** This section covers the activities of determining how supply will be sourced, including the segmentation and management of product and service categories. Suppliers for various categories are evaluated and selected, and the subsequent purchasing processes are managed.

**Manage Internal Operations and Inventory.** This section addresses the various operations planning processes utilized within the supply chain, including the management of inventory through its various life cycles phases. Measuring and assessing performance, both financially and operationally, is used to report against business objectives. Recognized techniques are applied to continuously improve the organization and its supply chain.

**Manage Supply Chain Logistics.** This section focuses on the development and execution of the warehousing and transportation strategies that make up the distribution network. This includes the technology utilized, services provided by partners, and factors that must be considered when trading globally. The reverse supply chain flow of products and information must also be managed, as well as the inclusion of waste reduction in those processes.

**Manage Customer and Supplier Relationships.** This section covers the management of supply chain partners, including the cultivation of both customer and supplier relationships, and the definition of metrics used to measure and evaluate performance. Performance issues that result should be resolved via various improvement programs.

**Manage Supply Chain Risk.** This section addresses the ways of identifying various types of risk that occur within the supply chain whether internal or external. Once risks have been identified, the impact, timing, and

probability must be assessed and a response for mitigation or avoidance determined.

**Evaluate and Optimize the Supply Chain.** This section covers the process of evaluating existing supply chain strategies and networks with the goal of redesigning for optimization. The influence of sustainability on today’s supply chain is addressed, including established programs available to assist an organization in adhering to social, environmental, and safety standards. Emerging supply chain trends in technology, communication, and visibility are also incorporated to enhance the supply chain.

The successful candidate will be able to recognize and analyze specific supply chain situations and opportunities and select the appropriate approaches, tools, techniques, and technologies. The candidate will be able to define the actions necessary to implement selected solutions. This includes an understanding of and the ability to manage:

- the alignment of supply chain processes and capabilities with strategic business goals
- organizational roles and infrastructures in the supply chain
- material, information, and financial flows
- intra- and inter-organizational relationships
- the selection and use of technologies to enable effective process management

In addition, the candidate preparing for the CSCP certification must have a fundamental understanding of the following key business concepts:

- Business acumen (qualitative skills, math, statistics)
- Ethical considerations (morals, character, habits)
- Leadership

## APICS CSCP Content 5.0

The following table identifies the eight main topics of the exam. The relative importance of these topics varies among industries, but the figures show the percentage designated for each section on the exam.

Diagnostic part	Main topic	Percentage of exam
I	Forecast and Manage Demand	10%
II	Manage the Global Supply Chain Network and Information	10%
III	Source Products and Services	17%
IV	Manage Internal Operations and Inventory	19%
V	Manage Supply Chain Logistics	9%
VI	Manage Customer and Supplier Relationships	17%
VII	Manage Supply Chain Risk	10%
VIII	Evaluate and Optimize the Supply Chain	8%

## Content Outline

### I. Forecast and Manage Demand

One of the first activities in supply chain management is to assemble and evaluate the various types of demand for products and services, including historical information and future predictions. This information is used to determine a forecast for future needs, and the necessary balancing of supply and demand.



### A. Collect and Analyze Historical and Environmental Demand Data

1. Perform historical analysis
  - a. Competitive environment
  - b. Demand patterns
2. Perform environmental scan and market analysis
3. Perform product assessment

### B. Influence Demand Through Marketing Activities

1. Apply the Four Ps (product, price, place, and promotion)
2. Analyze product life cycles

### C. Build the Forecast

1. Select appropriate forecasting methods
  - a. Qualitative
  - b. Quantitative
  - c. Extrinsic
  - d. Intrinsic
2. Measure forecast accuracy
  - a. Forecast error
  - b. Forecast bias

### D. Align Supply with Demand

1. Execute sales and operations planning (S&OP) process
2. Manage inputs and outputs
3. Perform reconciliation and analysis

References: 1; 2 (chapters 2, 5, 10-14); 4 (chapters 3-5, 7); 6 (chapters 1-3, 14); 7 (chapters 1, 4-6, 12); 8 (chapters 1-2, 4)

**Note:** The first number indicates the sequence number for the reference in the bibliography section, and the numbers in parentheses indicate the relevant chapters within that reference.

## II. Manage the Global Supply Chain Network and Information

The design of the supply chain network involves decision-making to build a structure that will support the business strategy and

allow room for growth. It is also necessary to determine and maintain the data necessary to manage the supply chain, as well as the appropriate measuring and reporting techniques.

### A. Define and Manage the Supply Chain Network

1. Design the supply chain network
  - a. Determine business requirements, information technology (IT) strategy, and cyber security
  - b. Flow of product, information, and funds
2. Design and manage end-to-end supply chain connectivity and visibility
  - a. Supply chain technology applications
  - b. Information sharing (examples include data, status, and documents)
  - c. Legal requirements

### B. Manage Customer, Supplier, Product/Item, Engineering, and Logistics Master Data

1. Create data
2. Update data
3. Cleanse data
4. Retire data

### C. Develop and Maintain Reports, Analytics, and Metrics

1. Define financial metrics and reports
2. Define operational metrics and reports
3. Utilize dashboards and balanced scorecards
4. Incorporate Supply Chain Operations Reference (SCOR) metrics

References: 1; 2 (chapters 11-12, 14-15); 4 (chapters 2, 4, 7, 14-15, 17-18); 5 (chapters 18-19); 6 (chapters 2-6); 7 (chapters 1, 4-5, 7, 11-13); 8 (chapters 3, 5, 11)

### III. Source Products and Services

The procurement process is critical to the management of the supply chain. This process includes determining applicable sourcing strategies for the various types of products and services, as well as supplier evaluation and selection and the management of purchasing contracts.

#### A. Align Sourcing Activities to Demand

1. Perform make-or-buy analysis
  - a. Manufacturing capabilities
  - b. Core competencies
  - c. Total cost of ownership (TCO)
2. Define sourcing requirements and timing

#### B. Manage Categories for Sourcing of Products and Services

1. Create segmented sourcing strategy
2. Conduct supply base analysis
3. Identify savings opportunities
4. Rationalize or right-size supply base
5. Influence product designs (for manufacturability, sustainability, transportation, or warehousing)

#### C. Evaluate and Select Suppliers

1. Manage initial supplier qualifications/evaluation (examples include financial stability and management of policies and performance)
2. Develop contracts
  - a. Negotiate terms and conditions, pricing, and delivery terms
  - b. Determine value-added services

#### D. Manage Purchase Orders

1. Place orders (standard, blanket, and e-procurement)
2. Track, expedite/de-expedite, and process changes

3. Reconcile and approve invoice for payment
4. Analyze sourcing processes for automation

References: 1; 2 (chapters 2, 4, 8-9, 11-12); 4 (chapters 2, 4, 7-8); 5 (chapters 2, 6-7, 9, 11, 13-14); 6 (chapters 2, 3, 7); 7 (chapters 2-4, 6, 8); 8 (chapters 12-13)

### IV. Manage Internal Operations and Inventory

In order to succeed in balancing supply and demand, operations and inventory techniques must be utilized and managed to fulfill business objectives. Performance against defined metrics must be evaluated and current methods for continuous improvement applied.

#### A. Plan Operations

1. Develop master schedule
2. Determine material requirements
3. Evaluate capacity requirements

#### B. Manage Inventory

1. Align inventory requirements with demand
2. Develop replenishment strategy
3. Manage product disposition and obsolescence
4. Manage product traceability and chain of custody
5. Define and execute physical inventory and cycle counting
6. Manage maintenance, repair, and operating (MRO) supplies

#### C. Measure and Assess Performance

1. Compare operational performance against plan
2. Compare financial performance against plan
3. Evaluate inventory accuracy
4. Report against key performance indicators (KPIs) and other objectives

**D. Analyze and Utilize Applicable Continuous Improvement Philosophies (examples include lean principles, six sigma, total quality management (TQM), and theory of constraints (TOC))**

References: 1; 2 (chapters 2, 9, 12); 4 (chapters 2, 4, 6-7, 13, 15); 5 (chapters 16, 19); 6 (chapters 1-2, 5-6); 7 (chapters 1, 4-5, 7, 9, 12-13); 8 (chapter 13)

1. Determine reverse logistics activities
2. Analyze costs and benefits
3. Determine use of warranties and disposition
4. Incorporate reduce, reuse, recycle, and recover waste hierarchy

References: 1; 2 (chapters 3, 6-7, 10); 4 (chapters 9-10); 5 (chapters 9-10, 17); 6 (chapters 1-2); 7 (chapters 1-4, 7-9, 11-12)

**V. Manage Supply Chain Logistics**

The delivery of supply to the sources of demand often includes the management of a network of warehouses and transportation modes. This includes the various processes within distribution, the consideration of any global requirements, and the use of technology to perform manual functions. In addition, the use of reverse logistics provides a mechanism for the reduction of waste within the supply chain.

**A. Define and Manage Distribution Network**

1. Develop and execute the warehousing strategy
2. Develop and execute the transportation strategy
3. Develop and execute logistics planning and information systems

**B. Provide Distribution Services**

1. Receive, put away, and store product
2. Pick, pack, and ship product
3. Select mode and transport providers
4. Provide value-added services (examples include installation, repacking, postponement, stocking, and final assembly)

**C. Evaluate Trade Considerations**

1. Comply with import/export regulations
2. Utilize Incoterms
3. Understand foreign/free trade zones/trading blocs
4. Provide appropriate documentation

**D. Design and Manage Reverse Flow**

**VI. Manage Customer and Supplier Relationships**

Managing both customer and supplier relations will enhance the performance of the entire supply chain. This includes establishing long-term relationships, measuring performance against defined metrics, and developing improvement strategies.

**A. Manage Customer Relations**

1. Cultivate customer relationships
  - a. Interpret voice of the customer (VOC)
  - b. Design customer service offerings
  - c. Define measurements and key performance indicators (KPIs) with customer
2. Measure customer service, manage customer feedback, and resolve issues

**B. Manage Supplier Relations**

1. Cultivate supplier relationships
  - a. Define measurements and KPIs with supplier (examples include quality, delivery, sustainability, and cost)
  - b. Establish supplier management programs and partnerships
2. Measure supplier performance and provide feedback
  - a. Perform periodic supplier evaluation or audit (examples include quality plan, financials, processes, and governance)
  - b. Establish supplier development and improvement programs

- c. Execute supplier remediation plan
- d. Manage quality cases or claims

References: 1; 2 (chapters 8-9, 12, 14); 4 (chapters 3-4, 8, 17); 5 (chapters 4, 8-9, 18); 6 (chapters 1, 4-6); 7 (chapters 4, 12-13); 8 (chapters 6, 12-13)

## VII. Manage Supply Chain Risk

Businesses today understand that risk is inherent within all supply chains. It is critical to understand the principles of risk management and be able to model, anticipate, and prevent risk events rather than merely respond when they occur.

- A. Identify Risks (examples include supply disruption, supplier compliance, financial, intellectual, and cyber risks)**
- B. Assess Impact, Timing, or Probability of Risks**
- C. Determine Response to Mitigate Risks**
  - 1. Perform contingency planning to minimize impact
  - 2. Eliminate avoidable risks
  - 3. Accept unavoidable risks
- D. Execute and Evaluate Risk Response**

References: 1; 2 (chapter 10); 4 (chapter 17); 5 (chapter 6); 7 (chapter 14); 8 (chapters 1-8, 10-11, 13)

## VIII. Evaluate and Optimize the Supply Chain

Competition requires that today's supply chains incorporate best practices, both internally and externally. This includes optimizing existing processes, as well as observing recognized initiatives, such as ethical sourcing, sustainable products and processes, and corporate responsibility and social values.

- A. Optimize the Supply Chain Strategy**
  - 1. Evaluate existing supply chain strategy
  - 2. Redesign strategy for optimization
- B. Optimize the Supply Chain Network and Processes**

- 1. Evaluate existing supply chain network and processes
- 2. Redesign network and processes for optimization

### C. Embed Sustainability into the Supply Chain

- 1. Incorporate triple bottom line (TBL)
- 2. Follow United Nations (UN) Global Compact guidelines
- 3. Utilize the Global Reporting Initiative (GRI) Standards
- 4. Adhere to social, environmental, safety, and quality accreditations and certifications
- 5. Develop sustainability metrics

### D. Consider Emerging Trends (examples include intelligent supply chain, Internet of Things (IoT), quantum computing, control towers, and blockchain)

- 1. Understand various emerging trends
- 2. Assess the impact on current practices
- 3. Incorporate changes as needed

References: 1; 2 (chapters 3, 5, 6, 11); 3 (chapters 1, 2, 5-9); 4 (chapters 2, 11, 13-14, 17, 18); 5 (chapters 7, 9, 20); 6 (chapters 1, 5-7); 7 (chapters 1-2, 5, 9, 11-15); 8 (chapters 2, 13, 15); 9 (chapters 2-5, 8, 10); 10; 11

## Bibliography

All test candidates should familiarize themselves with the references for this exam. The recommended references pertaining to the diagnostic areas are listed at the end of each section of the content outline. The first number indicates the sequence number for the reference in the Bibliography section and the numbers in parenthesis indicate the relevant chapters within that reference. All CSCP references can be found on the [CSCP Exam References](#) page.

## Key Terminology

An understanding of the following list of key terms is recommended. This list is intended to be thorough but not exhaustive. The candidate is also expected to be familiar with the definitions of terms identified in the content outlines. Definitions of these terms can be found in the *APICS Dictionary*, 16th edition. Definitions for those terms followed by an asterisk (\*) below are included in the Supplemental Glossary listed below the key terms. Terms followed by two asterisks (\*\*) are found in the *APICS Dictionary*, 16th edition; however, their definitions have been amended to augment or clarify the existing definitions. These modified definitions can be found in the Amended Definitions section.

In studying for the APICS CSCP certification, candidates may discover multiple terms used to denote the same technique. Examples of this include “sales and operations planning” versus “production planning” and “master production schedule” versus “master schedule.” ASCM and the certification exam subcommittees have attempted to provide consistency across all exams with recognized and preferred terminology. However, synonyms are often used by authors in the various references used to compile the body of knowledge.

## CSCP Key Terminology

ABC classification	competitive strategy*
advanced planning and scheduling (APS)	concurrent engineering
agility	conflict minerals
asset turnover*	continuous replenishment
available-to-promise (ATP)	contract warehouse*
balance sheet	cost of goods sold (COGS)
benchmarking	cost of quality
bill of lading (B/L)	cross-docking
bottleneck	cross-selling
break-bulk	customer relationship management (CRM)
bullwhip effect	customer segmentation
business intelligence	customer service level
business process reengineering (BPR)	customer service ratio
business-to-business commerce (B2B)	customer-supplier partnership
business-to-consumer sales (B2C)	cycle time
capacity management	data governance
capacity requirements planning (CRP)	data warehouse
carrying cost	days of supply
cash flow	days sale outstanding
cash-to-cash cycle time	decoupling
collaborative planning, forecasting, and replenishment (CPFR)	define, measure, analyze, improve, control (DMAIC) process
collaborative supply relationship	Delphi method
common carrier	demand forecasting
competitive advantage	demand management
competitive analysis	demand planning

# CSCP Key Terminology

demand pull	glocalization
demand shaping	harmonized system classification codes
demand time fence (DTF)	Harmonized Tariff Schedule (HTS)
demonstrated capacity	hazmat
design for logistics	hedge
design for maintainability	histogram
design for manufacturability	horizontal marketplace
design for manufacture and assembly (DFMA)	independent demand
design for quality	information system architecture
design for remanufacture	information technology
design for service	innovative products
design for six sigma	intellectual property
design for the environment (DFE)	inventory investment
design for the supply chain	inventory management
design for X (DFX)	inventory optimization software
direct shipment*	inventory policy
distribution channel	inventory turnover
distribution inventory	inventory valuation
distribution network structure	inventory velocity
distribution requirements planning (DRP)	ISO 14000 Series Standards
downside supply chain adaptability	ISO 26000
drop ship	ISO 28000
early supplier involvement (ESI)	ISO 31000
economic order quantity (EOQ)	ISO 9000
economic value added	joint venture
electronic data interchange (EDI)	kaizen
electronic product codes (EPCs)	kaizen event
end-of-life management	kanban
engineer-to-order	landed cost
enterprise resources planning (ERP)	lead time
environmentally responsible business	lean production
environmentally responsible manufacturing	life cycle analysis
environmentally sensitive engineering	life cycle assessment (LCA)
exchange rate	line haul costs
fill rate	logistics management
first in, first out (FIFO)	lot size
five Ss	make-or-buy decision
fixed cost	make-to-order
flexibility	make-to-stock
fourth-party logistics (4PL)	manufacturing layout strategies
freight forwarder	market demand
functional product	market research
global measurements	market segmentation
Global Reporting Initiative (GRI)	market share
global strategy	marketing strategy
global trade management	mass customization
Globally Harmonized System of Classification and Labelling of Chemicals (GHS)	master production schedule (MPS)
	material requirements planning (MRP)

# CSCP Key Terminology

materials handling	quick-response program (QRP)
mean absolute deviation (MAD)	radio frequency identification (RFID)
modular design strategy	random-location storage
modularization	rapid replenishment
multicountry strategy	reliability
multisourcing	request for quote (RFQ)
network planning	resiliency
operational performance measurements	responsiveness
operations plan	return on assets (ROA)
order fulfillment cycle time	return on investment (ROI)
order losers	return on supply chain fixed assets
order point	reverse auction
order promising	reverse logistics
order qualifiers	reverse supply chain
order winners	risk appetite
ordering cost	risk management
outsourcing	risk pooling
overall value at risk (VAR)	risk rating
overhead	risk register
Pareto analysis	risk tolerance
partnership	root cause analysis
payment terms	SA8000
perfect order fulfillment	safety capacity
performance measure	safety lead time
performance measurement system	safety stock
performance standard	seasonality
pipeline inventory	service industry
plan-do-check-action (PDCA)	service level
planning horizon	setup time
point of sale (POS)	single sourcing**
poka-yoke (mistake-proof)	single-source supplier**
portal	social responsibility
private trading exchange (PTX)	sole source**
private warehouse	sole-source supplier**
procurement	sourcing
product differentiation	standard costs
product family	standardization
product life cycle management (PLM)	stock keeping unit (SKU)
product positioning	strategic alliance
production planning	strategic partnerships
production rate	strategic planning
profit margin	strategic sourcing
pull signal	subcontracting
pull system	supplier certification
push system	supplier performance evaluation
quality control	supplier relationship management (SRM)
quality function deployment (QFD)	supply chain event management (SCEM)
quantity discount	supply chain management

# CSCP Key Terminology

supply chain network*
Supply Chain Operations Reference (SCOR) model
supply chain resilience
SWOT analysis
tariff
third-party logistics (3PL)
throughput
time fence
total cost of ownership (TCO)
total cost to serve
total costs
trade bloc
transportation management system (TMS)
transportation mode
triple bottom line (TBL)
UN Global Compact Management Model
upside supply chain adaptability

upside supply chain flexibility
utilization
value added
value analysis
value chain
value stream
value stream mapping
value-added network (VAN)
variance
velocity
vendor-managed inventory (VMI)
vertical integration
virtual trading exchange
warehouse management system (WMS)
waste
waste hierarchy



## Supplemental Glossary

The following key terms are not found in the *APICS Dictionary*, 16th edition, so definitions have been provided below.

### **Asset turnover**

A financial efficiency ratio which measures return on assets (ROA) or how effectively a company is using its assets to generate sales. It reflects how many dollars in total sales volume are being generated by each dollar that the firm has invested in assets and is calculated as follows: total sales divided by total average assets.

### **Competitive strategy**

A long-term, often time-phased plan of actions and approaches that a firm needs to pursue in order to achieve competitive advantage in their defined market. The plan will typically be devised to leverage company strengths in areas of market opportunities while also generating plans to protect against competitive threats related to recognized company weaknesses. The competitive strategy is usually a major portion of the overall company strategy.

### **Contract warehouse**

A contract warehouse combines characteristics of private and public operations where a long-term contractual relationship will result in lower cost than a public warehouse. Contract warehouses typically offer a range of logistics services.

### **Direct shipment**

Synonym for direct truck shipment.

### **Supply chain network**

Trading partners of a supply chain with established policies and structures regarding information, materials, and cash, as well as other standards, to enable the flow of sourcing, operational, and logistical processes from raw materials to end consumer. See: supply chain, supply chain network design systems.

## Amended Terms

The following key terms are found in the *APICS Dictionary*, 16th edition; however, the definitions have been amended to augment or clarify the existing definitions.

### **Single-source supplier**

A company that is selected to have 100 percent of the business for a good or service although alternate suppliers are available.

### **Single sourcing**

A method whereby a purchased good or service is supplied by only one supplier. Organizations will often have at least two suppliers for each purchase to ensure continuity of supply or to foster price competition between the suppliers. For example, a lean manufacturer frequently has only one supplier for a purchased part so that close relationships can be established with a smaller number of suppliers. These strategic relationships and mutual interdependence foster high quality, reliability, short lead times, and cooperative action.

### **Sole source**

The situation where the supply of a good or service is available from only one organization. Usually technical barriers, such as patents, complex tooling, or component designs, preclude other suppliers from offering the product.

### **Sole-source supplier**

The only supplier capable of meeting requirements for an item.

## Sample Questions

The following questions are similar in format and content to the questions on the CSCP exam. These questions are intended for practice and to illustrate the way questions are structured. The degree of success you have in answering these questions is not related to your potential for success on the actual exam and should not be interpreted as such.

Read each question, select an answer, and check your responses with the explanations on pages 23–24.

- Which of the following outcomes is the primary advantage of using web-based electronic data interchange (EDI) for communication of transactions?
  - There is more flexibility in transaction formats.
  - It lowers the cost per transaction.
  - It eliminates translation of transactions.
  - A larger number of transactions are supported.
- Quality remains an elusive concept in most organizations because:
  - it depends on customer perception.
  - there are many quality philosophies.
  - it is everyone's responsibility.
  - quality targets change frequently.
- An example of the use of a third-party logistics (3PL) company would be when a company contracts with another company to:
  - perform its shipping and receiving functions.
  - produce and deliver a major subassembly.
  - provide payroll services.
  - act as a sales agent in another country.
- Which of the following outcomes is an expected benefit of implementing supply chain event management (SCEM)?
  - It will reduce the need for supply chain performance reporting.
  - It will improve forecasting accuracy.
  - It notifies partners when a deviation from plans occurs.
  - It reduces the cost of communications between partners.
- Which of the following applications would enable a company to detect patterns in the preferences of a customer segment?
  - Business intelligence
  - Advanced planning system (APS)
  - Sales force automation
  - Artificial intelligence (AI)
- Cash-to-cash cycle time is a measure of how efficiently a company:
  - recovers its investment in plant and equipment.
  - manages assets to generate cash flow.
  - converts inventory into sales.
  - collects on sales to customers.
- Which of the following types of inventory is used to protect against variations in supply and/or demand?
  - Cycle stock
  - Transportation inventory
  - Safety stock
  - Anticipation inventory
- Which of the following outcomes is typically a characteristic of strategic sourcing?
  - It includes automation of contract management processes.
  - It reduces the price of goods and services.

- (C) A supplier receives all of the company's orders for a product or product family.
  - (D) The focus of the relationship is on large transactions.
9. Which of the following measures would be most appropriate for trading partners to use to assess the delivery performance of the manufacturer of items built to forecast?
- (A) Percentage of items shipped within the final assembly lead time
  - (B) Percentage of orders shipped complete within 24 hours of their receipt
  - (C) Number of items shipped within 24 hours of their receipt
  - (D) Revenue from orders shipped in a week
10. Which of the following benefits is expected when implementing collaborative supply chain management?
- (A) Maximizing the performance of the firm
  - (B) Reducing the number of competitors
  - (C) Increasing the scope of operations
  - (D) Synchronizing supply and demand

## Answers to Sample Questions

*Note: References to the content outline appear in parentheses.*

1. B (IIA) A web-based EDI system would eliminate the cost of a private or value-added network. A is not the best choice because the EDI transaction formats are independent of the network used for transmission. C is not the best choice because the transactions still must be translated to and from the standardized format. D is not the best choice because the standards are independent of the transmission method used.
2. A (IVD) The customers are the ultimate judges of quality, and they may have differing requirements and priorities. B is not the best answer because the philosophies have similar definitions of quality and address how to improve it. C is not the best choice because the definition of quality is generally not related to who provides it. D is not the best choice since quality perceptions are often (and often should be) continually improving and are not usually represented by a target.
3. A (VB) A 3PL company is a company that manages part or all of a company's product delivery operations, and shipping is part of the product delivery operations. B is not the best choice because neither producing the subassembly nor delivering it is part of the company's product delivery operations. C is not the best choice because payroll services are not a part of the company's product delivery operations. D is not the best choice because selling does not necessarily include any delivery operations.
4. C (VIB2) Supply chain event management (SCEM) monitors the supply chain and notifies designated individuals when specified events or exceptions occur or when trends are recognized. A is not the best choice because SCEM enables performance reporting but does not reduce the need for it. B is not the best choice because SCEM itself does not affect any specific application. D is not the best choice because SCEM does not directly affect the amount or cost of communications among partners.
5. A (VIA1) Business intelligence applications collect, organize, and analyze information. Use of these applications on customer data would allow the company to detect patterns in the data. B is not the best choice because advanced planning systems (APS) address operations rather than customers. C is not the best choice because sales force automation does not capture or organize the data required to detect patterns in customer preferences. D is not the best choice because artificial intelligence (AI) applications are intended to learn and reason like humans to address specific problems.
6. B (IVC2) Cash-to-cash cycle time is an indicator of how efficiently a company manages assets to improve cash flow. It is the inventory days plus accounts receivable days minus accounts payable days. A is not the best choice because cash-to-cash cycle time does not consider the investment in plant and equipment. C is not the best choice because it is limited to the inventory days component of cash-to-cash cycle time. D is not the best choice because it is limited to the accounts receivable component of cash-to-cash cycle time.
7. C (IVB1) Safety stock is maintained to protect against variability in either supply or demand. A is not the best choice because cycle stock is related to lot sizing. B is not the best choice because transportation inventory is inventory that is in transit between locations. D is not the best choice

because anticipation inventory is inventory held to cover trends or planned events, such as promotions or plant shutdown.

8. A (IIIC) Strategic sourcing focuses on the long-term relationship and, from an information technology (IT) perspective, typically includes automation of contract management. B is not the best choice because the focus is on the total cost of ownership (TCO) rather than on the quoted price. C is not the best choice because strategic sourcing can include contracting with more than one partner for a part or family of parts to reduce the risk of disruptions. D is not the best choice because the focus of the relationship is on a long-term relationship between the partners rather than on individual transactions.
9. B (VIB1a) The items are being produced to forecast and should be shipped from stock shortly after receipt of the order. A is not the best choice because the final assembly lead time should not be

needed before shipment as the items are produced to forecast. C is not the best choice because it is a measure of the number of items shipped, and there is no indication of the actual number of items that were ordered. D is not the best choice because revenue is a financial measure but does not indicate delivery performance.

10. D (IIA2b) D is the best choice according to the *APICS Dictionary* definition of supply chain management. A is not the best choice because supply chain management should improve the performance of the entire chain, not a single member of the chain. B is not the best choice because it is not usually an expectation though it may be an outcome of collaborative supply chain management. C is not the best choice because there is no direct relationship between collaborative supply chain management and the scope of operations for one of the partners.

### **About APICS and ASCM**

For more than 60 years, APICS certifications and training have demonstrated a commitment to global supply chain excellence – achieved one person at a time. APICS CPIM, CSCP and CLTD are now part of the Association for Supply Chain Management (ASCM), the largest non-profit association for supply chain professionals. ASCM is proud to offer the globally recognized certification programs you've come to trust.

