# **CLEP**®

Test Information Guide: College-Level Examination Program®

2015-16

Principles of Management



## CLEP TEST INFORMATION GUIDE FOR PRINCIPLES OF MANAGEMENT

## **History of CLEP**

Since 1967, the College-Level Examination Program (CLEP®) has provided over six million people with the opportunity to reach their educational goals. CLEP participants have received college credit for knowledge and expertise they have gained through prior course work, independent study or work and life experience.

Over the years, the CLEP examinations have evolved to keep pace with changing curricula and pedagogy. Typically, the examinations represent material taught in introductory college-level courses from all areas of the college curriculum. Students may choose from 33 different subject areas in which to demonstrate their mastery of college-level material.

Today, more than 2,900 colleges and universities recognize and grant credit for CLEP.

## Philosophy of CLEP

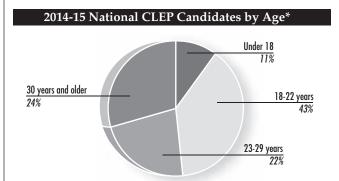
Promoting access to higher education is CLEP's foundation. CLEP offers students an opportunity to demonstrate and receive validation of their college-level skills and knowledge. Students who achieve an appropriate score on a CLEP exam can enrich their college experience with higher-level courses in their major field of study, expand their horizons by taking a wider array of electives and avoid repetition of material that they already know.

## **CLEP Participants**

CLEP's test-taking population includes people of all ages and walks of life. Traditional 18- to 22-year-old students, adults just entering or returning to school, high-school students, home-schoolers and international students who need to quantify their knowledge have all been assisted by CLEP in earning their college degrees. Currently, 59 percent of CLEP's National (civilian) test-takers are women and 46 percent are 23 years of age or older.

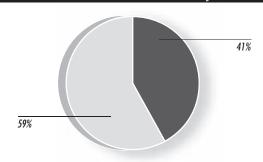
For over 30 years, the College Board has worked to provide government-funded credit-by-exam opportunities to the military through CLEP. Military service members are fully funded for their CLEP exam fees. Exams are administered at military installations

worldwide through computer-based testing programs. Approximately one-third of all CLEP candidates are military service members.



\* These data are based on 100% of CLEP test-takers who responded to this survey question during their examinations.

#### 2014-15 National CLEP Candidates by Gender



# **Computer-Based CLEP Testing**

The computer-based format of CLEP exams allows for a number of key features. These include:

- a variety of question formats that ensure effective assessment
- real-time score reporting that gives students and colleges the ability to make immediate creditgranting decisions (except College Composition, which requires faculty scoring of essays twice a month)
- a uniform recommended credit-granting score of 50 for all exams
- "rights-only" scoring, which awards one point per correct answer
- pretest questions that are not scored but provide current candidate population data and allow for rapid expansion of question pools

## **CLEP Exam Development**

Content development for each of the CLEP exams is directed by a test development committee. Each committee is composed of faculty from a wide variety of institutions who are currently teaching the relevant college undergraduate courses. The committee members establish the test specifications based on feedback from a national curriculum survey; recommend credit-granting scores and standards; develop and select test questions; review statistical data and prepare descriptive material for use by faculty (*Test Information Guides*) and students planning to take the tests (*CLEP Official Study Guide*).

College faculty also participate in CLEP in other ways: they convene periodically as part of standard-setting panels to determine the recommended level of student competency for the granting of college credit; they are called upon to write exam questions and to review exam forms; and they help to ensure the continuing relevance of the CLEP examinations through the curriculum surveys.

## The Curriculum Survey

The first step in the construction of a CLEP exam is a curriculum survey. Its main purpose is to obtain information needed to develop test-content specifications that reflect the current college curriculum and to recognize anticipated changes in the field. The surveys of college faculty are conducted in each subject every few years depending on the discipline. Specifically, the survey gathers information on:

- the major content and skill areas covered in the equivalent course and the proportion of the course devoted to each area
- specific topics taught and the emphasis given to each topic
- specific skills students are expected to acquire and the relative emphasis given to them
- recent and anticipated changes in course content, skills and topics
- the primary textbooks and supplementary learning resources used
- titles and lengths of college courses that correspond to the CLEP exam

#### The Committee

The College Board appoints standing committees of college faculty for each test title in the CLEP battery. Committee members usually serve a term of up to four years. Each committee works with content specialists at Educational Testing Service to establish test specifications and develop the tests. Listed below are the current committee members and their institutional affiliations.

Jeffrey P. Lineman,
Chair

Northwest Nazarene
University

Jennifer Dose

Christopher Martin

Northwest Nazarene
University

Messiah College

Centenary College

The primary objective of the committee is to produce tests with good content validity. CLEP tests must be rigorous and relevant to the discipline and the appropriate courses. While the consensus of the committee members is that this test has high content validity for a typical introductory Principles of Management course or curriculum, the validity of the content for a specific course or curriculum is best determined locally through careful review and comparison of test content, with instructional content covered in a particular course or curriculum.

## **The Committee Meeting**

The exam is developed from a pool of questions written by committee members and outside question writers. All questions that will be scored on a CLEP exam have been pretested; those that pass a rigorous statistical analysis for content relevance, difficulty, fairness and correlation with assessment criteria are added to the pool. These questions are compiled by test development specialists according to the test specifications, and are presented to all the committee members for a final review. Before convening at a two- or three-day committee meeting, the members have a chance to review the test specifications and the pool of questions available for possible inclusion in the exam.

At the meeting, the committee determines whether the questions are appropriate for the test and, if not, whether they need to be reworked and pretested again to ensure that they are accurate and unambiguous. Finally, draft forms of the exam are reviewed to ensure comparable levels of difficulty and content specifications on the various test forms. The committee is also responsible for writing and developing pretest questions. These questions are administered to candidates who take the examination and provide valuable statistical feedback on student performance under operational conditions.

Once the questions are developed and pretested, tests are assembled in one of two ways. In some cases, test forms are assembled in their entirety. These forms are of comparable difficulty and are therefore interchangeable. More commonly, questions are assembled into smaller, content-specific units called testlets, which can then be combined in different ways to create multiple test forms. This method allows many different forms to be assembled from a pool of questions.

## **Test Specifications**

Test content specifications are determined primarily through the curriculum survey, the expertise of the committee and test development specialists, the recommendations of appropriate councils and conferences, textbook reviews and other appropriate sources of information. Content specifications take into account:

- the purpose of the test
- the intended test-taker population
- the titles and descriptions of courses the test is designed to reflect
- the specific subject matter and abilities to be tested
- the length of the test, types of questions and instructions to be used

# Recommendation of the American Council on Education (ACE)

The American Council on Education's College Credit Recommendation Service (ACE CREDIT) has evaluated CLEP processes and procedures for developing, administering and scoring the exams. Effective July 2001, ACE recommended a uniform credit-granting score of 50 across all subjects (with additional Level-2 recommendations for the world language examinations), representing the performance of students who earn a grade of C in the corresponding course. Every test title has a minimum score of 20, a maximum score of 80 and a cut score of **50**. However, these score values cannot be compared across exams. The score scale is set so that a score of **50** represents the performance expected of a typical C student, which may differ from one subject to another. The score scale is not based on actual performance of test-takers. It is derived from the judgment of a panel of experts (college faculty who teach the course) who provide information on the level of student performance that would be necessary to receive college credit in the course.

Over the years, the CLEP examinations have been adapted to adjust to changes in curricula and pedagogy. As academic disciplines evolve, college faculty incorporate new methods and theory into their courses. CLEP examinations are revised to reflect those changes so the examinations continue to meet the needs of colleges and students. The CLEP program's most recent ACE CREDIT review was held in June 2015.

The American Council on Education, the major coordinating body for all the nation's higher education institutions, seeks to provide leadership and a unifying voice on key higher education issues and to influence public policy through advocacy, research and program initiatives. For more information, visit the ACE CREDIT website at www.acenet.edu/acecredit.

## **CLEP Credit Granting**

CLEP uses a common recommended credit-granting score of 50 for all CLEP exams.

This common credit-granting score does not mean, however, that the standards for all CLEP exams are the same. When a new or revised version of a test is introduced, the program conducts a standard setting to determine the recommended credit-granting score ("cut score").

A standard-setting panel, consisting of 15–20 faculty members from colleges and universities across the country who are currently teaching the course, is appointed to give its expert judgment on the level of student performance that would be necessary to

receive college credit in the course. The panel reviews the test and test specifications and defines the capabilities of the typical A student, as well as those of the typical B, C and D students.\* Expected individual student performance is rated by each panelist on each question. The combined average of the ratings is used to determine a recommended number of examination questions that must be answered correctly to mirror classroom performance of typical B and C students in the related course. The panel's findings are given to members of the test development committee who, with the help of Educational Testing Service and College Board psychometric specialists, make a final determination on which raw scores are equivalent to B and C levels of performance.

<sup>\*</sup>Student performance for the language exams (French, German and Spanish) is defined only at the B and C levels.

# **Principles of Management**

## **Description of the Examination**

The Principles of Management examination covers material that is usually taught in an introductory course in the essentials of management and organization. The fact that such courses are offered by different types of institutions and in a number of fields other than business has been taken into account in the preparation of this examination. It requires a knowledge of human resources and operational and functional aspects of management.

The examination contains approximately 100 questions to be answered in 90 minutes. Some of these are pretest questions that will not be scored. Any time candidates spend on tutorials and providing personal information is in addition to the actual testing time.

### **Knowledge and Skills Required**

Questions on the Principles of Management examination require candidates to demonstrate one or more of the following abilities in the approximate proportions indicated.

- Specific factual knowledge, recall and general understanding of purposes, functions and techniques of management (about 10 percent of the exam)
- Understanding of and ability to associate the meaning of specific terminology with important management ideas, processes, techniques, concepts and elements (about 40 percent of the exam)
- Understanding of theory and significant underlying assumptions, concepts and limitations of management data, including a comprehension of the rationale of procedures, methods and analyses (about 40 percent of the exam)
- Application of knowledge, general concepts and principles to specific problems (about 10 percent of the exam)

The subject matter of the Principles of Management examination is drawn from the following topics. The percentages next to the main topics indicate the approximate percentage of exam questions on that topic.

### 15%–25% Organization and Human Resources

Personnel administration

Human relations and motivation

Training and development

Performance appraisal

Organizational development

Legal concerns

Workforce diversity

Recruiting and selecting

Compensation and benefits

Collective bargaining

#### 10%-20% Operational Aspects of Management

Operations planning and control

Work scheduling

Quality management (e.g., TQM)

Information processing and management

Strategic planning and analysis

Productivity

#### 45%-55% Functional Aspects of Management

Planning

Organizing

Leading

Controlling

Authority

Decision making

Organization charts

Leadership

Organizational structure

Budgeting

Problem solving

Group dynamics and team functions

Conflict resolution

Communication

Change

Organizational theory

Historical aspects

# 10%–20% International Management and Contemporary Issues

Value dimensions

Regional economic integration

Trading alliances

Global environment

Social responsibilities of business

**Ethics** 

Systems

Environment

Government regulation

Management theories and theorists

E-business

Creativity and innovation

## **Sample Test Questions**

The following sample questions do not appear on an actual CLEP examination. They are intended to give potential test-takers an indication of the format and difficulty level of the examination and to provide content for practice and review. Knowing the correct answers to all of the sample questions is not a guarantee of satisfactory performance on the exam.

**Directions:** Each of the questions or incomplete statements below is followed by five suggested answers or completions. Select the one that is best in each case.

- 1. Which of the following words is NOT a step in the management process?
  - (A) Planning
  - (B) Leading
  - (C) Producing
  - (D) Controlling
  - (E) Organizing
- 2. A homebuilder dominates a market by offering attractive options, higher quality, and value-added services. Which of the following competitive strategies has the homebuilder adopted?
  - (A) Cost leadership
  - (B) Differentiation
  - (C) Price leadership
  - (D) Generic
  - (E) Design focus

- 3. Which of the following is a correct statement about controlling as a management function?
  - (A) It can be performed independently of planning.
  - (B) It is performed only by the controller of an organization.
  - (C) It is more prevalent in business than in government.
  - (D) It assumes a certain approach to motivating employees.
  - (E) It must be closely related to planning in order to work efficiently.
- 4. Decentralization tends to be encouraged by which of the following business trends?
  - I. Product diversification
  - II. Telecommuting
  - III. Geographical expansion of operations
  - (A) I only
  - (B) II only
  - (C) III only
  - (D) I and III only
  - (E) I, II, and III
- 5. Which of the following can be best determined by consulting an organization chart?
  - (A) The size of the company
  - (B) The distribution of company resources
  - (C) The nature of work performed
  - (D) The connections of positions
  - (E) The quality of management of the firm
- 6. The number of subordinates who directly report to a superior refers to the manager's
  - (A) span of control
  - (B) organizational role
  - (C) organizational structure
  - (D) chain of command
  - (E) general staff

- 7. Which of the following best illustrates informal organization?
  - (A) Line authority, such as that of the field marshal and battalion commander in the military
  - (B) Staff authority, such as that of personnel or cost control in manufacturing
  - (C) Functional authority, such as corporate supervision of the legal aspect of pension plans in branch plants
  - (D) Groupings based on position titles
  - (E) Groupings based on such factors as technical ability, seniority, and personal influence
- 8. The choice of organizational structure to be used in a business should be
  - (A) made by mutual agreement among all the people affected
  - (B) made by organization specialists rather than managers
  - (C) subject to definite and fixed rules
  - (D) based on the objectives of each individual business
  - (E) based on consideration of the type of organizational structures used by competitors
- 9. Which of the following best describes a system that requires subassemblies and components to be manufactured in small lots and delivered as needed to the next stage of production?
  - (A) Just in time (JIT)
  - (B) Small batch inventory (SBI)
  - (C) Inventory readiness (IR)
  - (D) Inventory preparedness
  - (E) Integrated preparedness (IP)

- 10. Frederick Taylor is considered a pioneer in the school of management referred to as the
  - (A) management process school
  - (B) empirical school
  - (C) scientific management school
  - (D) behaviorist school
  - (E) social system school
- 11. Preparation of which of the following is the most logical first step in developing an annual operating plan?
  - (A) A sales forecast by product
  - (B) A production schedule by product
  - (C) A flow-of-funds statement by product
  - (D) A plant and equipment requirement forecast
  - (E) A pro forma income statement and balance sheet
- 12. A large span of control throughout an organization invariably results in
  - (A) low morale
  - (B) high morale
  - (C) an excess workload for each manager
  - (D) a flat (horizontal) organizational structure
  - (E) a tall (vertical) organizational structure
- 13. Which of the following is a conflict-resolution practice that seeks to satisfy both parties in a conflict?
  - (A) Avoidance
  - (B) Stipulation
  - (C) Competition
  - (D) Collaboration
  - (E) Appeal to authority

- 14. Which of the following is most commonly used to measure the total productivity of a company?
  - (A) The ratio between total outputs and total inputs
  - (B) The ratio between fixed costs and variable costs
  - (C) The ratio between contribution margin and total revenue
  - (D) The ratio between the break-even point and total output
  - (E) The ratio between total inputs and total capital
- 15. The practice in large companies of establishing autonomous divisions whose heads are entirely responsible for what happens in the division is referred to as
  - (A) management by exception
  - (B) decentralization of authority
  - (C) delegation of authority
  - (D) integration
  - (E) informal organization
- 16. Which of the following control techniques is most likely to emphasize the importance of time?
  - (A) Break-even charts
  - (B) Physical standards
  - (C) Quality circles
  - (D) Variable budgeting
  - (E) Program Evaluation and Review Technique (PERT)
- 17. In a labor negotiation, if a third party has the power to determine a solution to a labor dispute between two parties, the negotiation is known as
  - (A) a grievance
  - (B) an arbitration
  - (C) a conciliation
  - (D) a mediation
  - (E) a concession

- 18. A type of control device for assessing the progress of planned activities and the expenditure of resources allocated to their accomplishments is referred to as
  - (A) a strategic plan
  - (B) an organizational chart
  - (C) a tactical plan
  - (D) a budget
  - (E) a proposal
- 19. Beatrice is a full-time employee who is permitted to arrange her schedule so that she works only four days a week and does not travel during rush hour. This is an example of Beatrice's employer
  - (A) applying the Civil Rights Act, Title VII
  - (B) scheduling flextime
  - (C) engaging in sexual discrimination
  - (D) encouraging low productivity
  - (E) enhancing compensation
- 20. According to Maslow, the need to feel genuinely respected by peers, both in and out of the work environment, is included in which of the following need classifications?
  - (A) Physiological
  - (B) Safety
  - (C) Stability
  - (D) Esteem
  - (E) Self-actualization
- 21. Which of the following management activities is most typically described as a controlling function?
  - (A) Goal setting
  - (B) Purchasing
  - (C) Budgetary review
  - (D) Staffing
  - (E) Recruiting

- 22. Which of the following personality traits best describes individuals who can adapt and adjust their behavior to external factors?
  - (A) Low self-esteem
  - (B) External locus of control
  - (C) High self-monitoring
  - (D) Low authoritarianism
  - (E) High authoritarianism
- 23. A person who believes that the ends justify the means is best described as
  - (A) self-confident
  - (B) Machiavellian
  - (C) authoritarian
  - (D) having cognitive dissonance
  - (E) having an internal locus of control
- 24. In which of the following situations are groups most effective?
  - (A) Cohesive groups with groupthink
  - (B) Noncohesive groups without groupthink
  - (C) Cohesive groups in alignment with organizational goals
  - (D) Noncohesive groups in alignment with organizational goals
  - (E) Cohesive groups not in alignment with organizational goals
- 25. If a manager commits a halo error in performance appraisal, the manager may have done which of the following?
  - (A) Based assessment on most recent performance rather than an entire period.
  - (B) Based assessment on an entire period performance rather than most recent.
  - (C) Based assessment on a single attribute of employees' performance.
  - (D) Given every employee the same rating of "average."
  - (E) Failed to give feedback to employees about their performance.

- 26. Which of the following best describes a team that brings together organizational members from various areas such as marketing, engineering, human resources, and production to work on a task?
  - (A) Command
  - (B) Self-managed
  - (C) Cross-functional
  - (D) Restrictive
  - (E) Informal
- 27. Which of the following is NOT an input, according to equity theory?
  - (A) Effort
  - (B) Experience
  - (C) Education
  - (D) Seniority
  - (E) Pay incentives
- 28. Which of the following terms best describes leaders who guide or motivate their followers in the direction of established goals by stressing rewards and the consequences of not conforming to expectations?
  - (A) Transactional
  - (B) Transformational
  - (C) Charismatic
  - (D) People-oriented
  - (E) Informal
- 29. Which of the following is the primary purpose of the management-by-objectives (MBO) approach?
  - (A) Aligning goal setting and planning
  - (B) Creating a dynamic and complex work environment
  - (C) Reducing employee resistance to change
  - (D) Implementing standard operating procedures
  - (E) Implementing a decision rule to respond to a designated problem

- 30. Which of the following is best defined as a process that involves defining organizational objectives and goals, establishing an overall strategy, and developing a hierarchy of plans to integrate activities?
  - (A) Manipulating
  - (B) Leading
  - (C) Planning
  - (D) Managing by objectives
  - (E) Controlling
- 31. Which of the following terms best describes a corporation's sexual harassment policy?
  - (A) A single-use plan
  - (B) A standing plan
  - (C) A strategic plan
  - (D) A short-term plan
  - (E) A specific plan
- 32. The preparations that a small town might make for a visit by the President of the United States would be considered what type of plan?
  - (A) Strategic
  - (B) Directional
  - (C) Standing
  - (D) Long-term
  - (E) Single-use
- 33. Which of the following best describes a type of planning in which multiple scenarios are developed to test possible future outcomes?
  - (A) Queuing theory
  - (B) Simulations
  - (C) Linear regression
  - (D) Marginal profits
  - (E) Project management

- 34. Which of the following describes the critical path in a Program Evaluation and Review Technique (PERT) process?
  - (A) Parts that require the most costly materials
  - (B) The most time-consuming sequence of events and activities
  - (C) The shortest route to the project completion
  - (D) The central guideline for quality control
  - (E) The property insurance
- 35. Which of the following oversees the transformation process that converts inputs such as labor and raw materials into outputs such as goods and services?
  - (A) Operation management
  - (B) Control management
  - (C) Strategic management
  - (D) Human resource management
  - (E) Project management
- 36. An employee manual is given by a supervisor to employees reporting to that supervisor. The manual outlines attendance policies. This is an example of which of the following methods of developing norms in groups?
  - (A) First behavior precedents
  - (B) Secondary behavior
  - (C) Explicit statements from an authority figure
  - (D) Critical events in the team's history
  - (E) Carryover from other experiences
- 37. The behavior of young athletes when they imitate the way they see professional athletes celebrate on television is most likely explained as
  - (A) classical conditioning
  - (B) operant conditioning
  - (C) cognitive learning
  - (D) social learning
  - (E) behavior modification

- 38. Which of the following best describes the situation in which an employee arrives for work on time in order to avoid being placed on probation for a second time?
  - (A) Positive reinforcement
  - (B) Negative reinforcement
  - (C) Extinction
  - (D) Intermittent reinforcement
  - (E) Cognitive learning
- 39. Which of the following are most likely to cause a team to avoid groupthink?
  - I. The team holds a second-chance meeting.
  - II. Outside experts are invited to observe and react to the group process.
  - III. The team leader expresses an opinion at the outset of the meeting to save time.
  - (A) I only
  - (B) I and II only
  - (C) I and III only
  - (D) II and III only
  - (E) I, II, and III
- 40. If a manager announces a casual-dress policy on Fridays and then comes to work dressed casually on the following Friday, this is an example of
  - (A) planning
  - (B) organizing
  - (C) leading
  - (D) controlling
  - (E) negative reinforcement
- 41. Which of the following models classifies products as stars, question marks, cash cows, or dogs?
  - (A) Porter's five forces model
  - (B) Theory X
  - (C) The Boston Consulting Group Matrix
  - (D) Theory Y
  - (E) Kanban

- 42. If George blames new software for his group's poor performance in the most recent quarter, but attributes the group's success in the prior quarter to his outstanding managerial skills, he is most likely exhibiting
  - (A) projection
  - (B) selective perception
  - (C) fundamental attribution error
  - (D) self-serving bias
  - (E) Pygmalion effect
- 43. Praise received from an employee's peers is best described as an example of
  - (A) an extrinsic reward
  - (B) an intrinsic reward
  - (C) low valence
  - (D) high instrumentality
  - (E) high directive leadership
- 44. Which of the following procedures is (are) appropriate when disciplining an employee?
  - I. Advising the employee of what he or she has done wrong.
  - II. Advising the employee of what he or she does well.
  - III. Disciplining the employee in private.
  - (A) I only
  - (B) II only
  - (C) I and II only
  - (D) II and III only
  - (E) I, II, and III
- 45. When a company adopts telecommuting, which core job characteristic is likely to be influenced the most?
  - (A) Skill variety
  - (B) Task identity
  - (C) Task significance
  - (D) Autonomy
  - (E) Job feedback

- 46. If jobs are designed so that each worker assembles a different part of a product on an automated assembly line, the job design is most likely to
  - (A) provide high levels of intrinsic rewards
  - (B) be highly challenging
  - (C) make it easy to train workers
  - (D) be highly satisfying
  - (E) demand creativity from the workers
- 47. If individual contributions in a group project are not evaluated, which of the following is likely to occur?
  - (A) Synergy
  - (B) Task significance
  - (C) Social loafing
  - (D) The Leavitt effect
  - (E) Vertical loading
- 48. Determining whether membership of a group should be heterogeneous or homogeneous should be most influenced by which of the following factors?
  - (A) The group size
  - (B) Status congruence
  - (C) The organizational setting
  - (D) The goals, rewards, and resources
  - (E) The nature of the task
- 49. Which of the following describes the most favorable situation for a leader of a group?
  - (A) The group has high group cohesiveness and positive group performance norms
  - (B) The group has high group cohesiveness and negative group performance norms
  - (C) The group has low group cohesiveness and positive group performance norms
  - (D) The group has low group cohesiveness and negative group performance norms
  - (E) The group has both moderate cohesiveness and moderate performance norms

- 50. In their classic study of the bases of social power, John R. P. French and Bertram Raven explicitly identified all of the following sources EXCEPT
  - (A) referent
  - (B) expert
  - (C) coercive
  - (D) information
  - (E) reward
- 51. If an investor buys a stock based on the recommendation of a broker because the broker's previous recommendations have been profitable, the broker possesses which type of power?
  - (A) Referent
  - (B) Legitimate
  - (C) Informal authority
  - (D) Charismatic
  - (E) Expert
- 52. Which of the following styles of leadership is most likely to be effective with workers who have experience and are professionally oriented?
  - (A) Supportive
  - (B) Task-oriented
  - (C) Achievement-oriented
  - (D) Mentoring
  - (E) Authoritarian
- 53. "You are always late to meetings and this will have to change!"

Which of the following best describes the comment above by a manager to an employee?

- (A) Proxemics
- (B) Constructive feedback
- (C) A general overspecific comment
- (D) A specific overgeneral comment
- (E) Nonverbal communication

- 54. The power base that relies on the use of knowledge to persuade is best described as
  - (A) rewards
  - (B) expert
  - (C) referent
  - (D) coercive
  - (E) legitimate
- 55. Which of the following is the most accurate description of a grapevine in an organization?
  - (A) It is a constant source of disruptive information.
  - (B) It follows the chain of command.
  - (C) It can be suppressed once it is recognized.
  - (D) It plays an important role in organizations.
  - (E) Most managers believe that it is a positive source of information.
- 56. Which of the following business situations is most appropriate for telecommuting?
  - (A) Workers thrive on competition.
  - (B) Decisions and actions are predetermined.
  - (C) Decisions rely on negotiation and social interaction.
  - (D) There is an oversupply of workers.
  - (E) Individual productivity is of primary importance.
- 57. Empowerment opportunities are LEAST likely to be found in which of the following?
  - (A) Participative goal setting
  - (B) Serving as a messenger
  - (C) Delegation of work
  - (D) Self-managed teams
  - (E) Freedom to experiment

- 58. Which of the following pairs of functions of management are most closely interdependent?
  - (A) Staffing and organizing
  - (B) Staffing and controlling
  - (C) Planning and leading
  - (D) Planning and controlling
  - (E) Disciplining and recruiting
- 59. Which of the following is the primary concern of employees responsible for strategic planning in a company?
  - (A) Monitoring daily cash flow
  - (B) Determining the contribution each subunit should make to the overall corporation
  - (C) Determining how to accomplish specific tasks with available resources
  - (D) Determining how to pursue long-term goals with available resources
  - (E) Preparing the annual statement
- 60. Which of the following is most likely to result from the use of flowcharts in planning?
  - (A) A guarantee that work will progress according to schedule
  - (B) A visual sequencing of activities
  - (C) A chart useful for comparing cash flow during two different quarters
  - (D) A scheduling process
  - (E) A combined sequencing and scheduling plan
- 61. Which of the following is a deterrent to "escalation of commitment"?
  - (A) A desire to justify earlier decisions
  - (B) Organizational politics
  - (C) An efficiency "reality check"
  - (D) The Abilene paradox
  - (E) A cultural emphasis on persistence

- 62. Which of the following is most likely to be a major advantage of group-aided decision making?
  - (A) Social pressure can drive the decision.
  - (B) Goal displacement and hidden agendas can occur.
  - (C) Groupthink may occur.
  - (D) The likelihood that the decision will be accepted increases.
  - (E) It frequently saves both time and money.
- 63. Which of the following basic leadership styles most closely matches the "high structure, low consideration" of the Ohio State leadership studies?
  - (A) Country club
  - (B) Team
  - (C) Selling
  - (D) Relationship motivated
  - (E) Telling
- 64. According to Fiedler's contingency studies, for organizations that were considered "moderately favorable" in terms of leaders' authority, task definition, and leader-member relationships, which of the following is the most effective style for the leader to have?
  - (A) Country club
  - (B) Team
  - (C) Selling
  - (D) Relationship motivated
  - (E) Telling
- 65. Large organizations are likely to structure their work operations and personnel in any of the following ways EXCEPT
  - (A) accounting
  - (B) divisional
  - (C) geographic
  - (D) market
  - (E) product

- 66. The span of control most appropriate in a given organization is primarily influenced by which of the following?
  - (A) Types of services or products being produced
  - (B) Amount of supervision needed by subordinates
  - (C) Amount of authority given to a supervisor
  - (D) Number of hierarchical levels within the organization
  - (E) Presence of work teams
- 67. The extensive use of work teams in an organization is most likely to occur under which of the following circumstances?
  - (A) Control is centralized by top management.
  - (B) The management style is primarily autocratic.
  - (C) Employees are unmotivated.
  - (D) Supervisors have a narrow span of control.
  - (E) Employee involvement is a management goal.
- 68. Which of the following quality tools utilizes a visual depiction of a process to help identify problem areas?
  - (A) Vector diagram
  - (B) Histogram
  - (C) Scatter diagram
  - (D) Cause-and-effect diagram
  - (E) Pareto chart
- 69. Outsourcing allows an organization to have which of the following?
  - (A) Higher employee motivation
  - (B) Improved labor-management relations
  - (C) Lower accident rates
  - (D) Greater flexibility in staffing
  - (E) Increased control over employees

- 70. Requiring a prospective employee to demonstrate the ability to do a specific task during the screening process is defined by which type of test?
  - (A) Achievement
  - (B) Aptitude
  - (C) Assessment
  - (D) Work sampling
  - (E) Spatial
- 71. Intrinsic rewards can be classified as rewards that do which of the following?
  - (A) Allow the employee to establish flexible working hours.
  - (B) Provide a sense of achievement and accomplishment.
  - (C) Create work coordination among all employees.
  - (D) Improve communication effectiveness.
  - (E) Allow greater span of control.
- 72. The best tangible measurement of leadership effectiveness is which of the following?
  - (A) Financial success
  - (B) Turnover ratios
  - (C) Training and development rates
  - (D) Employee job performance
  - (E) Employee morale
- 73. The use of transactional leadership is based on the concept of which of the following?
  - (A) Using rewards and coercive power
  - (B) Stressing intrinsic motivators
  - (C) Creating team-based goal setting
  - (D) Using peer-based performance evaluations
  - (E) Implementing employee involvement plans

- 74. Group or team cohesiveness is usually influenced by which of the following?
  - (A) Employee incentive systems
  - (B) Goal-setting processes
  - (C) Identification with the group by its members
  - (D) Size of the organization
  - (E) Type of organizational structure
- 75. Resolving conflict through collaboration requires that parties do which of the following?
  - (A) Work cooperatively
  - (B) Have a third party intervene
  - (C) Involve a supervisor in the process
  - (D) Establish predetermined outcomes
  - (E) Prepare written plans
- 76. Coaching as a leadership technique is most likely to work when which of the following exists?
  - (A) Employees are well trained.
  - (B) Job descriptions are valid.
  - (C) Performance-development needs are known.
  - (D) A performance appraisal process is used.
  - (E) Training programs are offered.
- 77. All of the following criteria are commonly used to evaluate decision-making alternatives EXCEPT
  - (A) ethicality
  - (B) economic feasibility
  - (C) legality
  - (D) practicality
  - (E) popularity
- 78. All of the following are considered steps in the planning process EXCEPT
  - (A) determining the organization's mission
  - (B) establishing goals and objectives
  - (C) formulating strategies
  - (D) implementing strategies
  - (E) measuring performance

- 79. Job enrichment can be an effective tool to achieve which of the following?
  - (A) Better communication
  - (B) Increased job responsibility
  - (C) Improved work relations
  - (D) Teamwork
  - (E) Shared decision making
- 80. Social Security, unemployment benefits, and workers' compensation are benefits required by law. If a company has 120 employees, what other benefit does federal law require a company to provide?
  - (A) Health insurance only
  - (B) Paid vacations only
  - (C) Family and medical leave
  - (D) Both health insurance and paid vacations
  - (E) Flextime
- 81. Which of the following best describes managerial ethics?
  - (A) It is the social obligation that the individual manager has to fulfill.
  - (B) It is a statement of the social responsibility of the organization.
  - (C) It is the standard of conduct that guides a person's decisions and behavior.
  - (D) It is the mission statement of the organization.
  - (E) It is a behavior that conforms to legal principles of justice.
- 82. A manager decides to lay off 10 percent of the workforce and justifies the action by noting that 90 percent still have jobs and the company will remain solvent. This manager has utilized which of the following views of ethics?
  - (A) Rights view of ethics
  - (B) Theory of justice view of ethics
  - (C) Integrative social contracts view of ethics
  - (D) Utilitarian view of ethics
  - (E) Golden rule view of ethics

**Questions 83–84** are based on the following information.

Ruth has been the chief executive officer of her company for fifteen years. Ten years ago, Ruth utilized the Internet to augment the traditional way of doing business, but she did not intend the Internet to replace her company's main source of revenue. Five years ago, Ruth's company began to use the Internet to perform traditional business functions better but did not sell anything on the Internet. Also, the company began to utilize an intranet as an internal organizational communication system. Last year, Ruth decided that her company's total existence must revolve around the Internet, leading to a seamless integration between traditional and e-business functions.

- 83. Ten years ago, Ruth's company would have been classified as which type of e-business?
  - (A) A total e-business organization
  - (B) An e-business enhanced organization
  - (C) An e-business enabled organization
  - (D) An e-business committed organization
  - (E) An e-business learning organization
- 84. Five years ago, Ruth's company would have been classified as which type of e-business?
  - (A) A total e-business organization
  - (B) An e-business enhanced organization
  - (C) An e-business enabled organization
  - (D) An e-business committed organization
  - (E) An e-business learning organization
- 85. According to Hofstede, the degree of individualism found in a country is most closely related to which of the following characteristics?
  - (A) Age
  - (B) Wealth
  - (C) Religion
  - (D) Location
  - (E) Democracy

- 86. A multinational company expands its operation to Brazil and hires Brazilians to manage the operation of the new branch. The company is using which type of approach to expand its operations?
  - (A) Ethnocentric
  - (B) Polycentric
  - (C) Monocentric
  - (D) Geocentric
  - (E) Egocentric
- 87. Knowledge management involves encouraging members of an organization to
  - (A) create educational programs targeted at the average employee
  - (B) develop new training programs to help new employees learn their jobs
  - (C) develop a corporate university to provide educational solutions in-house
  - (D) systematically gather information and share it with others
  - (E) retrain top managers through traditional MBA programs
- 88. Which of the following is the type of team that is made up of experts in various specialties working together on various organizational tasks?
  - (A) Functional
  - (B) Cross-functional
  - (C) Self-directed
  - (D) Vertical
  - (E) Autonomous
- 89. Which of the following types of questions would be the best to use during a job interview?
  - (A) Open-ended
  - (B) Rotational
  - (C) Technology-ended
  - (D) Prodding
  - (E) Hypocritical

- 90. In one stage of group development, group members come to accept and understand one another; differences are resolved and members develop a sense of team cohesion. This stage of group development is known as
  - (A) Adjourning
  - (B) Performing
  - (C) Storming
  - (D) Norming
  - (E) Forming
- 91. Solomon is reviewing the types of power the company has provided him for his job as a department head. A certain degree of authority comes with his position. He will directly exercise authority through which form of power?
  - (A) Referent
  - (B) Information
  - (C) Expert
  - (D) Legitimate
  - (E) Decision making
- 92. A performance-appraisal method that utilizes evaluation information from supervisors, employees, and coworkers is known as
  - (A) paired-comparison feedback
  - (B) programmed-feedback decision
  - (C) behaviorally anchored rating scale
  - (D) 360-degree feedback
  - (E) graphic rating scale
- 93. Which of the following refers to gender-related problems in the career advancement of employees?
  - (A) Flextime
  - (B) Glass ceiling
  - (C) Job enrichment
  - (D) Job sharing
  - (E) Career anchor

- 94. The breakeven point is defined as the level of production at which
  - (A) fixed costs are covered by revenue
  - (B) variable costs are covered by revenue
  - (C) total revenue is sufficient to cover total costs
  - (D) marginal revenue equals marginal cost
  - (E) the law of diminishing returns is activated
- 95. Which technology integrates financial, marketing, operational, and human resource applications on a single computer system?
  - (A) Universal application server (UAS)
  - (B) Material requirements planning (MRP)
  - (C) Vendor managed inventory (VMI)
  - (D) Electronic data exchange (EDI)
  - (E) Enterprise resource planning (ERP)
- 96. The Hawthorne studies are examples of which management approach?
  - (A) Classical
  - (B) Behavioral
  - (C) Modern
  - (D) Administrative
  - (E) Scientific
- 97. A Gantt chart is a visual depiction of the time frame planned for completing specific tasks as compared to which of the following?
  - (A) The delivery date promised to the customer
  - (B) The actual progress made on each task
  - (C) The manager's projected task completion
  - (D) The budgeted task completion
  - (E) The weighted-average task-completion score
- 98. A manager who outlines a problem to employees, accepts suggestions, and makes a decision is said to be following what style of leadership?
  - (A) Free reign
  - (B) Democratic
  - (C) Charismatic
  - (D) Autocratic
  - (E) Laissez-faire

- 99. Which of the following should be the first step in a decision-making process?
  - (A) Implementing a decision
  - (B) Assigning the problem to qualified personnel
  - (C) Considering all alternatives
  - (D) Knowing when to decide
  - (E) Defining the problem
- 100. Which of the following can best be described as a planning function?
  - (A) Monitoring operations
  - (B) Determining objectives
  - (C) Acquiring necessary resources
  - (D) Controlling inventory
  - (E) Coordinating interdepartmental activities
- 101. Which of the following people is associated with the development of the Theory X and Theory Y model?
  - (A) Abraham Maslow
  - (B) Elton Mayo
  - (C) Douglas McGregor
  - (D) Frederick Taylor
  - (E) Lillian Gilbreth
- 102. If the verbal and nonverbal parts of a manager's message are in conflict, research suggests that an employee usually should believe which of the following?
  - (A) The verbal message only.
  - (B) The nonverbal message only.
  - (C) Either depending on the circumstance.
  - (D) Neither the verbal nor the nonverbal parts of the message.
  - (E) It is impossible to judge which part of the message should be believed.

- 103. The process of discovering relationships and patterns in large amounts of data is called data
  - (A) mining
  - (B) clustering
  - (C) encryption
  - (D) networking
  - (E) warehousing
- 104. The style of leadership in which the manager shouts and screams is typical of
  - (A) participative leadership
  - (B) benevolent leadership
  - (C) autocratic leadership
  - (D) free-rein leadership
  - (E) democratic leadership
- 105. The hierarchy of needs theory argues that deficiency needs must be met before the push to satisfy growth needs drives personal growth. The individual most commonly associated with this theory is
  - (A) Peter Drucker
  - (B) Henri Fayol
  - (C) Abraham Maslow
  - (D) Elton Mayo
  - (E) F. W. Taylor
- 106. In a company, Employee A is scheduled to work from 9 a.m. to 6 p.m., while Employee B is scheduled to work from 7 a.m. to 4 p.m. This situation is an example of which of the following?
  - (A) Flextime
  - (B) Job sharing
  - (C) Job enrichment
  - (D) Compressed work schedule
  - (E) Telecommuting

- 107. Which of the following is a quantitative technique that can be used to predict employee performance based on such factors as education, seniority, job-related skills, and job satisfaction?
  - (A) Time-series analysis
  - (B) Econometric modeling
  - (C) Sales force composition
  - (D) Econometric indicators
  - (E) Regression modeling
- 108. Who among the following was important in the scientific management field for promoting motion studies?
  - (A) Max Weber
  - (B) Henri Fayol
  - (C) Abraham Maslow
  - (D) Frank & Lillian Gilbreth
  - (E) Henry Ford
- 109. Elton Mayo was famous for which of the following?
  - (A) Theory X
  - (B) Theory Y
  - (C) The Hawthorne Studies
  - (D) Administrative management
  - (E) Bureaucratic management
- 110. Which of the following is NOT an external environment force on an organization?
  - (A) Sociocultural trends
  - (B) Technology
  - (C) Economy
  - (D) Political trends
  - (E) Human resources

## **Study Resources**

Most textbooks used in college-level principles of management courses cover the topics in the outline given earlier, but the approaches to certain topics and the emphases given to them may differ. To prepare for the Principles of Management examination, it is advisable to study one or more college textbooks, which can be found in most college bookstores. When selecting a textbook, check the table of contents against the knowledge and skills required for this test.

Visit clep.collegeboard.org/test-preparation for additional management resources. You can also find suggestions for exam preparation in Chapter IV of the *Official Study Guide*. In addition, many college faculty post their course materials on their schools' websites.

		A	IIS	wer Ke	y	
1.	С	29.	A	57.	В	85. B
	В	30.	C	58.		86. B
3.	E	31.	В	59.	D	87. D
4.	E	32.	E	60.	В	88. B
5.	D	33.	В	61.	C	89. A
6.	A	34.	В	62.	D	90. D
7.	E	35.	A	63.	Е	91. D
8.	D	36.	C	64.	D	92. D
9.	A	37.	D	65.	A	93. B
10.	C	38.	В	66.	В	94. C
11.		39.		67.		95. E
12.		40.		68.		96. B
13.		41.		69.		97. B
14.		42.		70.		98. B
15.		43.		71.		99. E
16.		44.		72.		100. B
17.		45.		73.		101. C
18.		46.		74.		102. B
19.		47.		75.		103. A
20.		48.		76.		104. C
21.		49.		77.		105. C
22.		50.		78.		106. A
23.		51.		79.		107. E
24.		52.		80.		108. D
25.		53.		81.		109. C
26.		54.		82.		110. E
27.		55.		83.		
28.	A	56.	E	84.	C	

Answer Kev

### **Test Measurement Overview**

#### **Format**

There are multiple forms of the computer-based test, each containing a predetermined set of scored questions. The examinations are not adaptive. There may be some overlap between different forms of a test: any of the forms may have a few questions, many questions, or no questions in common. Some overlap may be necessary for statistical reasons.

In the computer-based test, not all questions contribute to the candidate's score. Some of the questions presented to the candidate are being pretested for use in future editions of the tests and will not count toward his or her score.

## **Scoring Information**

CLEP examinations are scored without a penalty for incorrect guessing. The candidate's raw score is simply the number of questions answered correctly. However, this raw score is not reported; the raw scores are translated into a scaled score by a process that adjusts for differences in the difficulty of the questions on the various forms of the test.

#### Scaled Scores

The scaled scores are reported on a scale of 20–80. Because the different forms of the tests are not always exactly equal in difficulty, raw-to-scale conversions may in some cases differ from form to form. The easier a form is judged to be, the higher the raw score required to attain a given scaled score. **Table 1** indicates the relationship between number correct (raw score) and scaled score across all forms.

## The Recommended Credit-Granting Score

Table 1 also indicates the recommended credit-granting score, which represents the performance of students earning a grade of C in the corresponding course. The recommended B-level score represents B-level performance in equivalent course work. These scores were established as the result of a

Standard Setting Study, the most recent having been conducted in 2007. The recommended credit-granting scores are based upon the judgments of a panel of experts currently teaching equivalent courses at various colleges and universities. These experts evaluate each question in order to determine the raw scores that would correspond to B and C levels of performance. Their judgments are then reviewed by a test development committee, which, in consultation with test content and psychometric specialists, makes a final determination. The standard-setting study is described more fully in the earlier section entitled "CLEP Credit Granting" on page 5.

Panel members participating in the most recent study

North Carolina Wesleyan

College

Bellevue University

Amy Wojciechowski West Shore Community College

James Chimenti	Jamestown Community College
Dana Dye	Gulf Coast Community College
Linda Hefferin	Elgin Community College
Nathan Himelstein	Essex County College
Casey Kleindienst	California State University —
	Fullerton
Jeffrey Lineman	Northwest Nazarene University
Abainesh Mitiku	West Virginia State University
Harriet Rojas	Indiana Wesleyan University
Carl Sonntag	Pikes Peak Community College
Hang Tran	Middle Tennessee State
	University
Barbara Van Syckle	Jackson Community College
Gary White	<b>Bucks County Community</b>
-	College

After the recommended credit-granting scores are determined, a statistical procedure called scaling is applied to establish the exact correspondences between raw and scaled scores. Note that a scaled score of 50 is assigned to the raw score that corresponds to the recommended credit-granting score for C-level performance, and a high but usually less-than-perfect raw score is selected and assigned a scaled score of 80.

Kathleen Wilson

Carolyn Youssef

# Table 1: Principles of Management Interpretive Score Data

American Council on Education (ACE) Recommended Number of Semester Hours of Credit: 3

Course Grade	Scaled Score	Number Correct
	80	90
	79	89
	78	87-88
	77	86-87
	76	85-86
	75	84-85
	74	83-84
	73	81-82
	72	80-81
	71	79-80
	70	78-79
	69	77-78
	68	76-77
	67	75-76
	66	74-75
	65	72-73
	64	71-72
В	63	70-71
	62	69-70
	61	68-69
	60	67-68
	59	66-67
	58	64-65
	57	63-64
	56	62-63
	55	61-62
	54	60-61
	53	59-60
	52	58-59
	51	56-57
C	50*	55-56
	49	54-55
	48	53-54
	48	53-54 52-53 51-52
	48 47	53-54 52-53
	48 47 46	53-54 52-53 51-52
	48 47 46 45 44	53-54 52-53 51-52 50
	48 47 46 45	53-54 52-53 51-52 50 49
	48 47 46 45 44 43 42	53-54 52-53 51-52 50 49 47-48 46-47
	48 47 46 45 44 43	53-54 52-53 51-52 50 49 47-48
	48 47 46 45 44 43 42 41	53-54 52-53 51-52 50 49 47-48 46-47 45-46
	48 47 46 45 44 43 42 41 40	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45
	48 47 46 45 44 43 42 41 40 39	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44
	48 47 46 45 44 43 42 41 40 39 38 37	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41
	48 47 46 45 44 43 42 41 40 39 38 37 36	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40
	48 47 46 45 44 43 42 41 40 39 38 37 36 35	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39
	48 47 46 45 44 43 42 41 40 39 38 37 36 35 34	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39 37-38
	48 47 46 45 44 43 42 41 40 39 38 37 36 35 34	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39 37-38 36-37
	48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39 37-38 36-37 35-36
	48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39 37-38 36-37 35-36 34
	48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39 37-38 36-37 35-36 34
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	48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39 37-38 36-37 35-36 34 33 32 31 29-30
	48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39 37-38 36-37 35-36 34 33 32 31 29-30 28-29
	48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39 37-38 36-37 35-36 34 33 32 31 29-30 28-29 27-28
	48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39 37-38 36-37 35-36 34 33 32 31 29-30 28-29 27-28 26-27
	48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39 37-38 36-37 35-36 34 33 32 31 29-30 28-29 27-28 26-27 25-26
	48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23 22	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39 37-38 36-37 35-36 34 33 32 31 29-30 28-29 27-28 26-27 25-26 24-25
	48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25 24 23	53-54 52-53 51-52 50 49 47-48 46-47 45-46 44-45 43-44 42 41 39-40 38-39 37-38 36-37 35-36 34 33 32 31 29-30 28-29 27-28 26-27 25-26

\*Credit-granting score recommended by ACE.

Note: The number-correct scores for each scaled score on different forms may vary depending on form difficulty.

## **Validity**

Validity is a characteristic of a particular use of the test scores of a group of examinees. If the scores are used to make inferences about the examinees' knowledge of a particular subject, the validity of the scores for that purpose is the extent to which those inferences can be trusted to be accurate.

One type of evidence for the validity of test scores is called content-related evidence of validity. It is usually based upon the judgments of a set of experts who evaluate the extent to which the content of the test is appropriate for the inferences to be made about the examinees' knowledge. The committee that developed the CLEP Principles of Management examination selected the content of the test to reflect the content of Principles of Management courses at most colleges, as determined by a curriculum survey. Since colleges differ somewhat in the content of the courses they offer, faculty members should, and are urged to, review the content outline and the sample questions to ensure that the test covers core content appropriate to the courses at their college.

Another type of evidence for test-score validity is called criterion-related evidence of validity. It consists of statistical evidence that examinees who score high on the test also do well on other measures of the knowledge or skills the test is being used to measure. Criterion-related evidence for the validity of CLEP scores can be obtained by studies comparing students' CLEP scores with the grades they received in corresponding classes, or other measures of achievement or ability. CLEP and the College Board conduct these studies, called Admitted Class Evaluation Service or ACES, for individual colleges that meet certain criteria at the college's request. Please contact CLEP for more information.

## Reliability

The reliability of the test scores of a group of examinees is commonly described by two statistics: the reliability coefficient and the standard error of measurement (SEM). The reliability coefficient is the correlation between the scores those examinees get (or would get) on two independent replications of the measurement process. The reliability coefficient is intended to indicate the stability/consistency of the candidates' test scores,

and is often expressed as a number ranging from .00 to 1.00. A value of .00 indicates total lack of stability, while a value of 1.00 indicates perfect stability. The reliability coefficient can be interpreted as the correlation between the scores examinees would earn on two forms of the test that had no questions in common.

Statisticians use an internal-consistency measure to calculate the reliability coefficients for the CLEP exam.<sup>1</sup> This involves looking at the statistical relationships among responses to individual multiple-choice questions to estimate the reliability of the total test score. The SEM is an estimate of the amount by which a typical test-taker's score differs from the average of the scores that a test-taker would have gotten on all possible editions of the test. It is expressed in score units of the test. Intervals extending one standard error above and below the true score for a test-taker will include 68 percent of that test-taker's obtained scores. Similarly, intervals extending two standard errors above and below the true score will include 95 percent of the test-taker's obtained scores. The standard error of measurement is inversely related to the reliability coefficient. If the reliability of the test were 1.00 (if it perfectly measured the candidate's knowledge), the standard error of measurement would be zero.

An additional index of reliability is the conditional standard of error of measurement (CSEM). Since different editions of this exam contain different questions, a test-taker's score would not be exactly the same on all possible editions of the exam. The CSEM indicates how much those scores would vary. It is the typical distance of those scores (all for the same test-taker) from their average. A test-taker's CSEM on a test cannot be computed, but by using the data from many test-takers, it can be estimated. The CSEM estimate reported here is for a test-taker whose average score, over all possible forms of the exam, would be equal to the recommended C-level credit-granting score.

Scores on the CLEP examination in Principles of Management are estimated to have a reliability coefficient of 0.88. The standard error of measurement is 3.49 scaled-score points. The conditional standard error of measurement at the recommended C-level credit-granting score is 3.74 scaled-score points.

The formula used is known as Kuder-Richardson 20, or KR-20, which is equivalent to a more general formula called coefficient alpha.