EXAM SUMMARY

HEALTH CARE ADMINISTRATION

Undergraduate and Master Academic Degree Levels

August 2021

Written & Delivered By:

PEREGRINE
GLOBAL SERVICES

ACADEMICS • LEADERSHIP • PUBLICATIONS

HEALTH CARE ADMINISTRATION

EXAM SUMMARY

Introduction

Peregrine Academic Services, the higher education division of Peregrine Global Services, provides assessment services for performing direct assessment of learning outcomes for several academic disciplines. The online exams are used to evaluate retained student knowledge in relation to the academic program's learning outcomes.

This document outlines the **Health Care Administration** assessment service for both undergraduate and master academic degree levels.

This assessment service is designed for use by U.S.-based schools and programs.

Validity and Reliability

Peregrine Academic Services places a high priority on ensuring the validity and reliability of the assessment services. These practices begin at the design stage and continue through beta-testing, and with ongoing regularly scheduled quality reviews. A summary of these approaches is provided at the end of this document. For additional information regarding the reliability process, please refer to the following peer-reviewed article:

> Oedekoven, O. O., Napolitano, M., Lemmon, J., & Zaiontz, C. (2019). Determining test bank reliability. *Transnational Journal of Business, 4*(Summer), 63-74.

Testing Process

The exams include 10 questions for each exam topic. Each exam is unique as questions are selected at random from the test bank of over 200 questions per topic. Institutions select the topics to be included in the exam to align with the learning outcomes and program curriculum.

Available Exam Domains and Topics

The specific topics for this assessment service that are available for use with a customized assessment are:

1. Communications and Relationship Management

    1.1. Communication Skills

    1.2. Facilitation and Negotiation

    1.3. Relationship Management

2. Leadership

    2.1. Communicating Vision

    2.2. Leadership Skills and Behavior

    2.3. Managing Change

    2.4. Organizational Climate and Culture

    2.5. Teamwork

    2.6. Cultural Competence and Diversity

3. Professionalism

    3.1. Contributions to the Community and Profession

    3.2. Personal and Professional Accountability

    3.3. Professional Development and Lifelong Learning

    3.4. Ethics

4. Knowledge of the Healthcare Environment

    4.1. Health Care Personnel

    4.2. Healthcare Systems and Organizations

    4.3. The Community and the Environment

    4.4. The Legal Environment of Healthcare Administration

    4.5. The Patient's Perspective

    4.6. Population Health

    4.7. Health Policy

5. Business Knowledge and Skills

    5.1. Financial Management

    5.2. General Management

    5.3. Human Resource Management

    5.4. Information Management

    5.5. Organizational Dynamics

Subjects and Example Questions

The following pages include the specific subjects included with the topics along with example questions for the topic. These specific questions have been inactivated within the test bank and are shown in this document only to illustrate the types of questions that are presented to learners.

Test bank questions are written and proofed by terminally degreed, subject matter experts from accredited institutions who have teaching experience with the specific discipline. The criteria for a test bank question include:

- Test questions may be questions or (incomplete) statements.
- All multiple-choice format with 4 possible responses and only one correct response.
- All responses must be plausible and not misleading.
- "All of the Above" (or similar) or "None of the Above" or "A & C" responses are not used.
- All incorrect responses are assigned Response Distractors:

Response Distractor	Student's response indicates they…
Fact-based error	…do not know the fact(s).
Concept-based error	…misunderstood the concept.
Conclusion-base error	…reached an incorrect conclusion.
Interpretation-based error	…incorrectly interpreted the question.
Calculation-based error	…made an error with a math-related calculation.

Communications and Relationship Management

Communication Skills

Subjects

- Collaborate

- Communication

- Diversity

- Interpersonal Relations

- Leadership

- Lifelong Learning

- Teamwork

- Technology

Example Questions

Workers in a workplace can help avoid cross-cultural misunderstandings by _____.

   A. cultivating cultural understanding of fellow workers and customers/clients

   B. maintaining a professional appearance at all times

   C. interacting with others influenced by their own cultural beliefs

   D. not serving customers/clients with whom they feel uncomfortable

Correct Response: A

_____ environments engender increased knowledge and respect for the health team members for each other.

   A. Collaborative and aggressive

   B. Collaborative and passive

   C. Collaborative and reactive

   D. Collaborative and participative

Correct Response: D

Facilitation and Negotiation

Subjects:

- Collaborate

- External Relationships

- Negotiation

- Physicians

- Teamwork

Example Questions:

All of these are guidelines for establishing and preserving long-term relationship except_____.

    A. understand the mission, strategic priorities

    B. try to limit transparency in communicating information

    C. reach out to stakeholders at the program onset

    D. keep an open communication flow exchange

    E. look at shared goals and outcomes

Correct Response: B

_____ allows health system managers, policy makers, and clinicians to find ways of implementing the desired conditions for workers while meeting the expectations of patients.

    A. Negotiation

    B. Teamwork

    C. Political maneuvering

    D. Resource allocation

    E. Cultural awareness

Correct Response: B

Relationship Management

Subjects:

- Accountability
- Collaborate
- External Relations
- Healthcare Systems
- Interpersonal Relations
- Leadership
- Physicians
- Systems Thinking

Example Questions:

Examples of healthcare organizations collaborating on a range of project include the following except_____.

A. health and social care partners working collaboratively across a region to improve the provision of Urgent Care services

B. price fixing arrangements

C. community Healthcare and Acute Care partners working collaboratively to reduce excess bed days

D. the development of a joint cancer strategy involving multiple organizations, third sector partners and others

Correct Response: B

Marked by the growing use and influence of emerging/disruptive technologies – cloud, mobile devices, big data, advanced analytics, and others, system thinking is _.

A. a luxury that can't be afforded

B. a business survival strategy

C. can be ignored

D. costly

E. time consuming

Correct Response: B

Leadership

Communicating Vision

Subjects:

- Accountability

- Change Management

- Ethics

- Implementation

- Leadership

- Physicians

- Quality Improvement

- Strategy

- Systems Thinking

Example Questions:

In contrast with constructive accountability, _____ is a process in which two or more people or groups discuss their needs and differences of opinion and eventually develop a solution.

    A. ethical conflict

    B. legal conflict

    C. constructive conflict

    D. neutral conflict

Correct Response: C

Sound _____ strategies are needed to create a healthy organization culture in which subordinates, team members, and leaders achieve results.

    A. financial

    B. operational

    C. communication

    D. accounting

    E. legal

Correct Response: C

Leadership Skills and Behavior

Subjects:

- Accountability
- Advocate
- Assessment
- Change Management
- Culture
- Decision-Making
- Ethics
- External Relations
- Governance
- Leadership
- Lifelong Learning
- Mentoring
- Regulations
- Self-Awareness
- Systems Thinking
- Theory

Example Questions:

The strategic plans are usually the responsibility of _____ management.

    A. lower management

    B. middle management

    C. senior management

    D. outside managers

    E. consultants

Correct Response: C

Self-aware leaders exhibit which of the following characteristics?

    A. They know themselves, including strengths and weaknesses.

    B. They delegate their decisions to others.

    C. They do not seek feedback from others.

    D. They do not have high self-esteem.

Correct Response: A

Managing Change

Subjects:

- Change Management

- Implementation

- Physicians

- Planning

- Quality Improvement

- Self-Awareness

- Staff

- Strategy

- Systems Thinking

- Theory

Example Questions:

Leaders have a responsibility to_____ and_____ change.

    A. understand; respond to

    B. facilitate; enable

    C. interpret; communicate

    D. participate; involve

Correct Response: B

Managing employees' emotions in the change initiatives can be very _____ to the leaders.

    A. easy

    B. demanding

    C. informal

    D. uncomplicated

Correct Response: B

Organizational Climate and Culture

Subjects:

- Accountability
- Change Management
- Collaborate
- Culture
- Decision-Making
- Diversity
- Ethics
- Leadership
- Lifelong Learning
- Patients and Families
- Systems Thinking
- Teamwork

Example Questions:

Presenting the evidence of a problem in a _____ manner is the crucial first step to the comprehension that presages behavior changes.

    A. nonthreatening

    B. threatening

    C. aggressive

    D. fun

    E. relaxed

Correct Response: A

Which of the following is most likely to give employees a reason to act ethically and to be more innovative?

    A. Salary penalties for poor work.

    B. Fear of retribution from upper administration.

    C. Having an informal back door relationship with the upper administration.

    D. Empowerment and autonomy over their work.

Correct Response: D

Teamwork

Subjects:

- Collaborate

- Change Management

- Healthcare Professionals

- Leadership

- Teamwork

- Self-Awareness

Example Questions:

Clinical care in critical care or long-term care units requires _____ teams of clinicians.

A. Highly Dynamic

B. intact

C. core

D. contingency

Correct Response: B

Empirical evidence shows that _____ self-awareness tends to assist leaders with better team outcomes.

A. clear

B. higher

C. vision-focused

D. lower

Correct Response: B

Cultural Competence and Diversity

Subjects:

- Culture

- Diversity

- Ethics

- Interpersonal Relations

- Self-Awareness

- Staff

Example Questions:

Coming later

[Professionalism](#)

Contributions to the Community and Profession

Subjects:

- Accountability

- Advocate

- Assessment

- Collaborate

- Community

- Diversity

- Ethics

- Leadership

- Lifelong Learning

- Mentoring

- Nursing

- Physicians

- Planning

- Regulations

- Systems Thinking

Example Questions:

_____ provides a bridge linking the medical model's focus on individual prevention and treatment approaches with community-based prevention strategies.

A. Institutional advocacy

B. Management advocacy

C. Political advocacy

D. Community advocacy

E. Social advocacy

Correct Response: D

Multiple new regulations and accreditations processes, professional standards, increased accountabilities, and financial priorities require _____ and nurse leaders already struggling to gain and sustain competencies in evolving arenas of practice, quality, and safe patient care.

    A. less of direct care consultants

    B. more of direct care clerks

    C. less of direct care nurses

    D. more of direct care nurses

Correct Response: D

Personal and Professional Accountability

Subjects:

- Accountability
- Analysis
- Culture
- Diversity
- Ethics
- Leadership
- Lifelong Learning
- Management
- Mentoring
- Negotiation
- Patients and Families
- Regulations
- Self-Awareness

Example Questions:

A healthcare leader who has empathy shows the following except _____.

A. listens attentively

B. is attentive to people's nonverbal cues

C. can only relate to those from the same background

D. can see things from someone else's perspectives

E. relates well with people of diverse backgrounds

Correct Response: C

Effective healthcare professionals, like exemplary dealmakers, understand that having a _____ mindset is essential in negotiation.

A. learning

B. wining

C. relaxed

D. lazy

E. aggressive

Correct Response: A

Professional Development and Lifelong Learning

Subjects:

- Accountability

- Collaborate

- Culture

- Leadership

- Lifelong Learning

- Mentoring

- Self-Awareness

Example Questions:

In managing professional development costs and benefits, healthcare organizations should strive to maximize the ratio of _____.

    A. gains to expenditures

    B. expenditure to gains

    C. expenditure to benefits

    D. gains to cash flows

    E. cash flows to cash outflows

Correct Response: A

Management and leadership are important for the delivery of good health services. Although the two are similar in some respects, they may involve different types of outlook, skills, and _____.

    A. assets

    B. behaviors

    C. activities

    D. resources

Correct Response: B

Ethics

Subjects:

- Accountability
- Ethics
- Interpersonal Relations
- Leadership
- Self-Awareness
- Teamwork
- Advocate

Example Questions:

The CEO of a major insurance company wants to expand senior health care. The CEO sponsors a conference to educate professionals about this market. The CEO is a/an _____.

    A. futurist

    B. financial leader

    C. negotiator

    D. advocate

Correct Response: D

An administrator always begins rounds with the question, "How can I help?". This action demonstrates _____.

    A. beneficence

    B. practical wisdom

    C. autonomy

    D. justice

Correct Response: A

Knowledge of the Healthcare Environment

Health Care Personnel

Subjects:

- Collaborate

- Healthcare Professionals

- Healthcare Systems

- Negotiation

- Nursing

- Physicians

- Staff

- Teamwork

Example Questions:

The impact of advances in science and medicine on demand for health care services and the productivity of health care providers will _____ by medical specialty and delivery setting.

   A. be unknown

   B. change

   C. make no difference

   D. keep

   E. differ

Correct Response: E

Today's age diverse workforce expands the definition of diversity and employers who develop leadership strategies that appeal to an age diverse population will gain a _____.

   A. high edge

   B. market edge

   C. competitive edge

   D. sharp edge

Correct Response: C

Healthcare Systems and Organizations

Subjects:

- Collaborate

- Communication

- Evidence-Based Practice

- Healthcare System

- Regulations

- Systems Thinking

- Theory

Example Questions:

Healthcare organization simultaneously compete in some areas while _____ in others such as care for the poor and medical education.

    A. fight

    B. collaborate

    C. undermine

    D. deceive

Correct Response: B

In 1991, the regulation informally known as the 'common rule' was issued by 15 federal departments and agencies to _____.

    A. protect human research subjects

    B. promote a common set of rules for health care business

    C. protect the environment from hospital waste

    D. advance standards for regulatory agencies

Correct Response: A

The Community and the Environment

Subjects:

- Advocate

- Community

- Healthcare Systems

- Patients and Families

- Regulations

- Systems Thinking

- Technology

Example Questions:

Community health workers are effective advocates because they _____.

    A. live in the community they work with

    B. are salaried by the community

    C. are popular amongst community members

    D. are government employees with a significant amount of authority

Correct Response: A

The use of this technology has resulted in decreased hospital stays.

    A. Robotics

    B. Antibiotics

    C. Radiology

    D. Laparoscopic Surgery

Correct Response: D

The Legal Environment of Healthcare Administration

Subjects:

- Healthcare Law and Regulation
- Healthcare Legislation
- Healthcare Policy
- Healthcare Regulations
- Public Health

Example Questions:

The following situation may make that person eligible for workers' compensation.

A. Julia has an accident on her way to work.

B. Jan hurt herself while vacationing at the resort where she works as a cook.

C. Steve fell in the hospital parking lot on his lunch break.

D. Scott heard an odd popping noise as he transferred a patient from the bed to the chair on 4 East where he works as a nurse.

Correct Response: D

The Medicaid program is a joint social medical insurance program between _____.

A. federal and county governments

B. federal and state governments

C. city and state governments

D. state and county governments

E. federal and city governments

Correct Response: B

The Patient's Perspective

Subjects:

- Advocate

- Change Management

- Evidence-Based Practice

- Healthcare Systems

- Implementation

- Patient Safety

- Patients and Families

- Quality Improvement

Example Questions:

Patient advocacy groups act as _____ when they convincingly and persistently provide a patient's perspective to politicians in an effort to bring about change.

    A. pundits

    B. lobbyists

    C. HMOs

    D. legal representatives

Correct Response: B

What are some criticisms for patient involvement in healthcare?

    A. Patient involvement could ease the burden on physicians so that more patients could be seen.

    B. Most patients get a sense of pseudo entitlement which hinders physician work.

    C. The patient population include all ages, cultures, backgrounds, and languages, which makes input unreliable.

    D. Physician morale is damaged when patients are given authority in healthcare decisions.

Correct Response: C

Population Health

Subjects:

- Analysis
- Assessment
- Community
- Evidence-based Practice
- Healthcare Policy
- Healthcare Systems
- Patients and Families
- Systems Thinking
- Technology

Example Questions:

Coming later

Health Policy

Subjects:

- Analysis

- Assessment

- Evidence-based Practice

- Healthcare Law and Regulations

- Healthcare Legislation

- Healthcare Policy

- Regulations

- Theory

- Systems Thinking

Example Questions:

Coming later

Business Knowledge and Skills

Financial Management

Subjects:

- Accountability

- Analysis

- Assessment

- Budgets

- External Relations

- Healthcare Systems

- Management

- Negotiation

- Physicians

- Planning

- Regulations

- Reimbursement

- Staff

- Teamwork

- Theory

Example Questions:

A for-profit healthcare organization's purpose is to provide _____.

    A. profit to the owner

    B. free services to the community

    C. employment to its employees

    D. financial information to shareholders

Correct Response: A

Leading healthcare organizations improve the financial management process to increase access to capital, have more _____ employees, and be able to build better relationships with their customers and suppliers by increasing the transparency of their business operations.

A. engaged

B. weak

C. strong

D. poor

Correct Response: A

General Management

Subjects:

- Accountability
- Analysis
- Assessment
- Budgets
- Change Management
- Collaborate
- Community
- Decision-Making
- Diversity
- Evidence-Based Practice
- Healthcare Systems
- Implementation
- Interpersonal Relations
- Leadership
- Lifelong Learning
- Management
- Negotiation
- Patients and Families
- Planning
- Staff
- Standards
- Systems Thinking
- Theory

General Management

Example Questions:

The _____ diagram helps to identify and organize the possible causes for a problem in a structured format.

    A. cause-and-process

    B. cause-and-set up

    C. cause-and-risk

    D. cause-and-effect

    E. cause-and-structure

Correct Response: D

A _____, probably the most explicit kind of a standing plan, is a statement that either forbids or requires a certain action or inaction without variation.

    A. rule

    B. decision

    C. plan

    D. guidance

Correct Response: A

Human Resource Management

Subjects:

- Accountability
- Analysis
- Assessment
- Decision-Making
- Diversity
- Healthcare Professionals
- Leadership
- Management
- Negotiation
- Physicians
- Planning
- Regulations
- Risk
- Staff
- Standards
- Strategy
- Teamwork
- Theory

Example Questions:

Which of these functions is not considered a human resources function?

   A. Compensation and benefits

   B. Labor relations

   C. Public relations

   D. Employment

   E. Employee relations

Correct Response: C

An effective performance management process, while requiring time to plan and implement, can save you and the employee time and energy. Most importantly, it can be a very effective _____, since it can help you and the employee achieve organizational success.

    A. outcome

    B. investigator

    C. motivator

    D. format

Correct Response: C

Information Management

Subjects:

- Accountability
- Analysis
- Assessment
- Change Management
- Ethics
- Implementation
- Information Systems
- Management
- Nursing
- Planning
- Regulations
- Staff
- Standards
- Technology

Example Questions:

A healthcare professional who has the primary responsibility of ensuring the timely, accurate, and complete collection and maintenance of patient data is known as _____.

    A. a hospital registrar

    B. a coder

    C. a health information manager

    D. a medical staff coordinator

Correct Response: C

The planning for complex information management system needs to take into consideration _____ perspectives because patients themselves are becoming more 'consumerist' in their attitudes about their medical records.

    A. vendors'

    B. consultants'

    C. regulators'

    D. vendors', consultants', and regulators'

    E. consumers'

Correct Response: E

Organizational Dynamics

Subjects:

- Advocate

- Collaborate

- Culture

- Healthcare Professionals

- Systems Thinking

- Strategy

- Standards

Example Questions:

Healthcare organizations that have systems in place to educate, mobilize, and organize _____ positively influence population health.

    A. patient outcomes

    B. the health system

    C. finances

    D. public health advocacy

Correct Response: D

Acceptance of a _____ culture is essential for an organization's success.

    A. transactional

    B. transformational

    C. open

    D. system

Correct Response: C

Governance

Subjects:

- Culture

- Healthcare Systems

- Planning

- Regulations

- Strategy

- Accountability

- Ethics

Example Questions:

Coming later

Governance

Quality Improvement

Subjects:

- Accountability

- Advocate

- Analysis

- Assessment

- Communication

- Decision-Making

- Evidence-Based Practice

- Healthcare Professionals

- Management

- Nursing

- Patients and Families

- Physicians

- Planning

- Quality Improvement

- Risk

- Staff

- Standards

- Systems Thinking

- Theory

Example Questions:

The _____ set standards for healthcare organizations and assess compliance with those standards.

    A. insurance companies

    B. private sector accrediting bodies

    C. state medical associations

    D. state licensing bodies

Correct Response: B

Identifying and understanding _____ are essential components of healthcare quality management.

    A. customers' expectations and requirements

    B. vendors' expectations

    C. management's expectations

    D. owners' expectations

Correct Response: A

Risk Management

Subjects:

- Analysis

- Assessment

- Healthcare Professionals

- Healthcare Systems

- Information Systems

- Patient Safety

- Patients and Families

- Planning

- Regulations

- Risk

- Staff

- Standards

- Technology

Example Questions:

The emergency preparation for unplanned and unexpected mass casualty events such as natural disasters, pandemics, large-scale accidents, civic disturbance, or terrorist attack is _____ task of community healthcare organization.

- A. an important

- B. an expected

- C. an important and expected

- D. not important or expected

Correct Response: C

When patient information is requested via a subpoena, you must _____.

- A. comply and send the entire record immediately

- B. provide only the "minimum necessary standard" even if more is requested in the subpoena

- C. provide all PHI that is requested in the subpoena

- D. provide PHI only with the consent of the patient

Correct Response: C

Strategic Planning

Subjects:

- Analysis
- Assessment
- Governance
- Healthcare Professionals
- Healthcare Systems
- Regulations
- Strategy
- Systems Thinking

Example Questions:

What is a primary outcome(s) of disruptive innovation?

    A. A new pathway

    B. A new definition

    C. A new market

    D. A new product

Correct Response: C

Nurses represent an important contribution to strategic planning because they can inform the plan about _____.

    A. internal strengths

    B. external strengths

    C. external weaknesses

    D. organizational objectives

Correct Response: A

Marketing

Subjects:

- Analysis
- Culture
- Healthcare Professionals
- Strategy
- Patients and families
- Systems Thinking
- Technology
- Theory

Example Questions:

Health care organizations focused on marketing to improve patient volumes and growing market share are engaged in _____.

    A. consumer

    B. increasing profit

    C. improving market penetration

    D. improving effectiveness

Correct Response: C

Marketing to people who use health care can be challenging when the _____, or someone who consumes services rather than goods, has a personal and ongoing relationship with the provider.

    A. patient

    B. enrollee

    C. client

    D. consumer

Correct Response: C

Healthcare Economics

Subjects:

- Decision-Making
- Healthcare Policy
- Healthcare Systems
- Systems Thinking
- Theory
- Analysis

Example Questions:

Coming later

Healthcare Economics

Quantitative Methods

Subjects:

- Analysis

- Decision-Making

- Technology

- Evidence-based Practice

Example Questions:

Coming later

Operations Management

Subjects:

- Analysis
- Budgets
- Implementation
- Negotiation
- Patient Safety
- Regulations
- Reimbursement
- Systems Thinking

Example Questions:

A hospital's plan to reduce infection rates by 10% within one year is commonly regarded as a(n) _____ analysis.

    A. financial

    B. strategic monitoring

    C. hospital

    D. monitoring

Correct Response: B

Provider burnout is a concern for patient safety. The _____ proposes that job strain arises from a combination of the efforts that a person is required to make and the rewards that are obtained from it.

    A. effort-reward imbalance model

    B. demand-control-support model

    C. input-throughput-output model

    D. meta-analysis model

Correct Response: A

Post-acute Care

Subjects:

- Evidence-based Practice

- Implementation

- Nursing

- Patients and Families

- Reimbursement

- Regulation

- Systems Thinking

Example Questions:

Which entity establishes Medicaid reimbursement rates to providers?

- A. State governments
- B. Federal governments
- C. Centers for Medicare and Medicaid Services
- D. The provider

Correct Response: A

The most widely accepted environmental authority on commercial or residential buildings in senior living that can help to minimize the risk of harm for anyone entering the community is the _____.

- A. Occupational Safety and Hazard Administration
- B. National Fire Protection Administration
- C. Office of the Inspector General
- D. general accounting office

Correct Response: B

Assessment Service Validity and Reliability

The programmatic assessment services provided by Peregrine Academic Services, the higher education division of Peregrine Global Services, are used to assess retained knowledge of students at various academic degree levels. Schools deploy these services to evaluate the effectiveness of their academic programs, identify areas for improvement, and demonstrate program outcomes to external stakeholders.

Peregrine places a high priority on ensuring the validity and reliability of the assessment services. These practices begin at the design stage and continue through beta-testing, and with ongoing regularly scheduled quality reviews. The following outlines the approaches used to ensure ongoing validity and reliability.

> *Validity* refers to the extent to which the test banks and the services measure the phenomena under consideration.

> *Reliability* refers to the extent to which the exam results are repeatable and therefore data sets can be compared over time.

Design Features that Impact Validity and Reliability

The following features apply to all assessment services.

- Exam scoring is 100% objective using automated marking.
- Each exam viewed by a student is unique using a random selection of questions from the test bank in random topic order.
- Each exam has timed response periods for questions. When the user navigates away from the exam screen, the screen fades, a message appears informing the user that he/she has left the exam window and the questions are timed.
- Students are unable to copy/paste from the exam window.
- Abandoned exams are excluded from summary reports.

Ensuring Ongoing Validity and Reliability

Validity

To ensure test bank validity, the following measures were adopted when the initial test banks were created. The same principles are use with subsequent changes to the test banks.

- The specific accreditation or certification requirements related to learning outcomes evaluation were used to determine the topics and subjects for the test banks.
- Current teachings for each topic were considered regarding the foundational level of each test bank.

- Exam questions were written and reviewed by academic professionals within each discipline. Similar subject matter experts are used with subsequent editing and for new questions.

- Each topic has questions designated for 4-8 subjects per topic to help ensure appropriate breadth of coverage and allow for specific learning outcomes measurement.

- Exam responses are either correct or incorrect, with only one possible right choice. Scores are determined by summarizing the percent correct: per subject, per topic, and by total score.

Reliability

Peregrine contracted with external experts to design a comprehensive and statistically sound approach to measuring assessment service reliability. A *Reliability Report* is generated for each assessment service for its scheduled periodic review. The report generates data for several reliability metrics and the data for each are compared with acceptability criteria to determine which test questions should be modified or replaced.

Subject matter experts in the field are then contracted to modify/replace the targeted questions. Hence, the assessment service is regularly reviewed and improved to ensure ongoing reliability.

Reliability is determined by measuring *Item Difficulty*, *Item Discrimination,* and *Question Interchangeability.*

Item Difficulty refers to the percentage of students who answer questions correctly. Data are generated by topic and for each question. The target Item Difficulty is 60 percent correct with an acceptable range of 35–80 percent.

Item Discrimination refers to how well a question distinguishes between those students with more knowledge (higher overall exam scores) from those with less knowledge. Two measures are used: *Discrimination Index* and *Point-Biserial Correlation*.

For a given question, the Discrimination Index compares the scores of students with high overall test scores with students with low overall test scores. The scale is -1 to +1, with higher values indicating that a given question better distinguishes between high and low performing students. A value of ≥ 0.20 is considered acceptable. Point-Biserial Correlation is equal to Pearson's Correlation Coefficient between the scores on the entire exam and the scores on a specific question. A score of ≥ 0.10 is considered acceptable. When assessing the quality of questions, both the Discrimination Index and the Point-Biserial Correlation Coefficient are reviewed.

Question Interchangeability refers to the ability to substitute a question in the test bank with another without significantly affecting the total score that an individual would receive on the exam. This is determined using Cohen's Effect Size *d* calculated based on a two-tailed *t*-test comparing the total score for all students who had that question in their exam versus the total score of the students who did not have that question in their exam. The scale is 0 - 1.0, and a score of < 0.20 is considered acceptable.