NOCTI

Pathway Credential Blueprint

Network Systems

General Assessment Information

Blueprint Contents

General Assessment Information
Written Assessment Information

Sample Written Items
Specific Competencies Covered in the Test

Test Type: The Network Systems Assessment industry-based credential is included in NOCTI's Pathway assessment battery. Pathway assessments assess knowledge and skills at a broader level than the Job Ready assessments and focus on the Pathways established as part of the national career cluster model. Pathway assessments are delivered entirely online which allows NOCTI to include engaging interactive items.
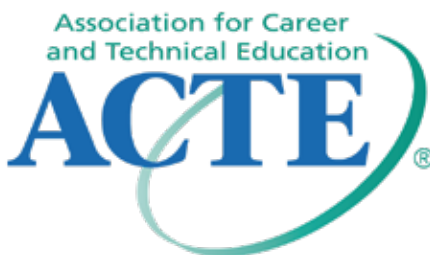
Revision Team: The assessment content is based on input from secondary, post-secondary, and business/industry representatives from the states of California, Connecticut, Georgia, Michigan, Missouri, New Jersey, Oklahoma, and Pennsylvania.

CIP Code

11.9999-Computer and Information Sciences
and Support Services, Other

CTE — Learning that works for America

Career Cluster 11-
Information Technology

Association for Career and Technical Education — ACTE

The Association for Career and Technical Education (ACTE), the leading professional organization for career and technical educators, commends all students who participate in career and technical education programs and choose to validate their educational attainment through rigorous technical assessments. In taking this assessment you demonstrate to your school, your parents and guardians, your future employers and yourself that you understand the concepts and knowledge needed to succeed in the workplace. Good Luck!

NATIONAL COLLEGE CREDIT RECOMMENDATION SERVICE
University of the State of New York - Regents Research Fund

In the lower division baccalaureate/associate degree category, 3 semester hours in Network Systems, Computer Science, or Computer Information Systems
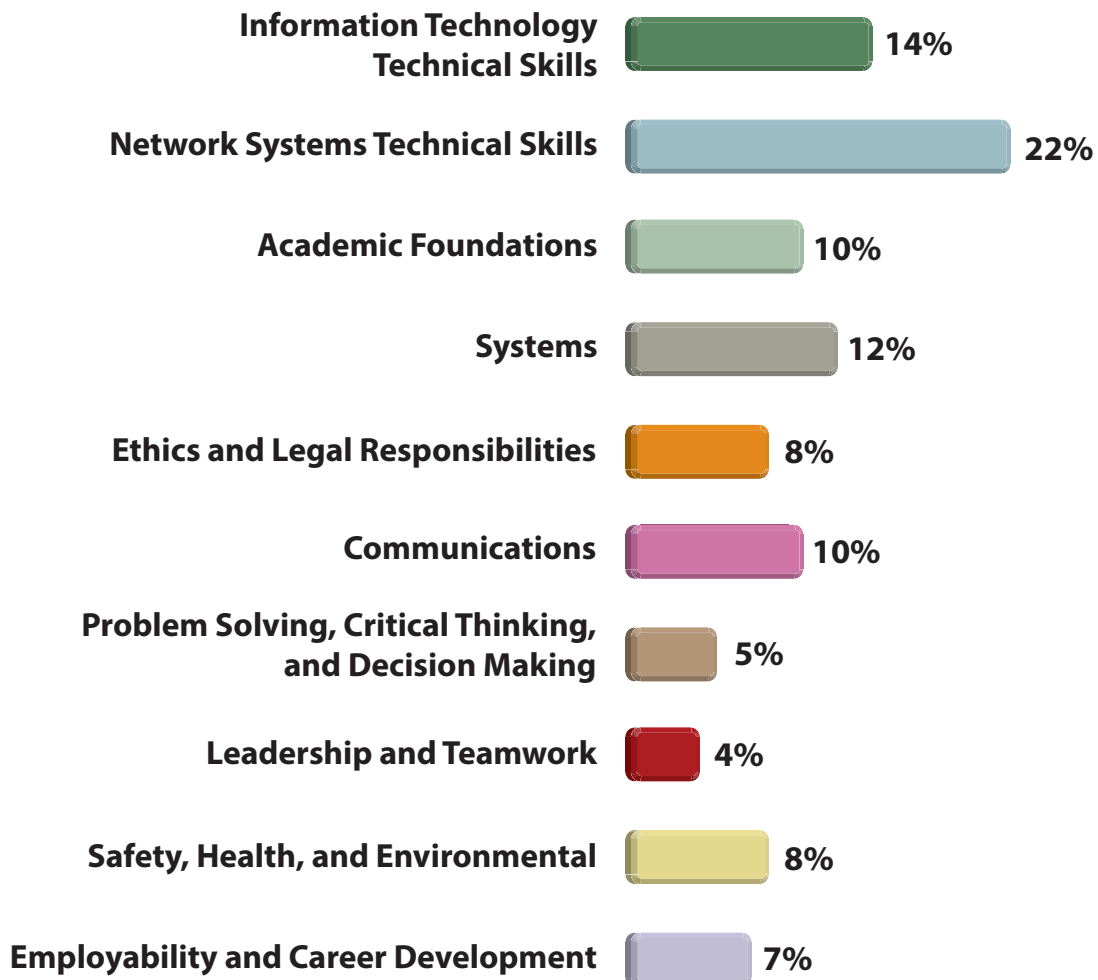
Written Assessment

NOCTI written assessments consist of questions to measure an individual's factual theoretical knowledge.

Administration Time: 2 hours
Number of Questions: 113
Number of Sessions: This assessment may be administered in one, two, or three sessions.

Areas Covered

Area	Percentage
Information Technology Technical Skills	14%
Network Systems Technical Skills	22%
Academic Foundations	10%
Systems	12%
Ethics and Legal Responsibilities	8%
Communications	10%
Problem Solving, Critical Thinking, and Decision Making	5%
Leadership and Teamwork	4%
Safety, Health, and Environmental	8%
Employability and Career Development	7%

Specific Standards and Competencies Included in this Assessment

Information Technology Technical Skills
- Use word processing, presentation software, and email applications to prepare communications
- Use spreadsheet and database applications to manage and communicate data and information
- Identify and select appropriate hardware components associated with information systems
- Identify and select appropriate security practices and applications and network services associated with information systems

Network Systems Technical Skills
- Apply knowledge of network architecture and design
- Identify customer needs and network component requirements
- Perform network maintenance and user support services
- Identify network security issues

Academic Foundations
- Apply language arts skills in an IT environment
- Apply writing skills in an IT environment
- Apply mathematics skills in an IT environment
- Apply science skills in an IT environment

Systems
- Describe the relationship, roles, and responsibilities among IT professionals
- Analyze the impact on IT based on technological advances (e.g., wireless, SmartPhones, cloud computing)
- Identify standard terminology and basic concepts within IT

Specific Standards and Competencies (continued)

Ethics and Legal Responsibilities
- Apply appropriate laws, regulations, and industry standards to IT situations
- Identify ethical issues and demonstrate ethical behavior in IT situations

Communications
- Locate, organize, and reference written information
- Utilize listening skills and interpret verbal/nonverbal (body language) behaviors to enhance communication
- Interpret and use tables, charts, and figures to support written and oral communication

Problem Solving, Critical Thinking, and Decision Making
- Locate credible sources of information about problems and determine appropriate methods for investigating causes
- Determine root causes of problems to suggest and evaluate solutions

Specific Standards and Competencies (continued)

Leadership and Teamwork
- Apply leadership qualities to improve the quality of work and the work environment
- Work effectively in a team environment to improve the quality of work and the work environment

Safety, Health, and Environmental
- Identify and practice appropriate safety procedures for IT occupations
- Identify and practice appropriate environmental procedures for IT occupations

Employability and Career Development
- Demonstrate appropriate workplace behaviors related to a career in IT
- Pursue career development skills to advance in IT careers
- Demonstrate knowledge of certifications appropriate for careers in IT

Sample Questions

Fiber optic cable allows _____ waves to propagate down its length from end to end.
      A. light
      B. radio
      C. electrical
      D. sonic

A wireless personal area network is based on which of the following technologies?
      A. token ring
      B. 802.11b
      C. RFI
      D. Bluetooth®

The NIC is installed into
      A. the system board
      B. a port in the modem
      C. the CPU
      D. a CD-ROM drive

When a group is brainstorming possible solutions for a problem, one of the <u>first</u> steps is to
      A. only write down correct ideas
      B. criticize all recommendations
      C. discuss and rank each item
      D. record all comments and suggestions

A properly attached wrist strap decreases the chance of
      A. RFI
      B. ESP
      C. EMI
      D. ESD

(Continued on the following page)

Sample Questions (continued)

OSI stands for
> A. open standard interface
> B. open standard interconnection
> C. open systems interconnection
> D. open serial interface

An example of body language that conveys interest in what a speaker is saying is
> A. repeatedly gazing over the speaker's shoulder
> B. crossing your arms
> C. stifling a yawn
> D. leaning forward slightly

A 1-terabyte hard drive is how much larger than a 500-gigabyte hard drive?
> A. 2 times larger
> B. 5 times larger
> C. 10 times larger
> D. 1,000 times larger

To ensure that an old computer has been disposed of properly, the technician should
> A. call the service department 10 days after the equipment was delivered
> B. ask when the equipment will be processed
> C. request a certificate of completion once the work is done
> D. request a call upon demolition

CompTIA is a non-profit organization involved with
> A. computer operating systems in IT
> B. certifying organizations for IT
> C. comparison of IT products
> D. timing and independent assessment of IT

Notes