

Job Ready Assessment Blueprint

Computer Technology



Test Code: 4022 / Version: 01

General Assessment Information

Blueprint Contents

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Test Type: The Computer Technology industry-based credential is included in NOCTI's Job Ready assessment battery. Job Ready assessments measure technical skills at the occupational level and include items which gauge factual and theoretical knowledge. Job Ready assessments typically offer both a written and performance component and can be used at the secondary and post-secondary levels. Job Ready assessments can be delivered in an online or paper/pencil format.

Revision Team: The assessment content is based on input from secondary, post-secondary, and business/industry representatives from the states of California, Kentucky, Missouri, New Jersey, North Dakota, Oklahoma, Pennsylvania, and Virginia.



11.1006- Computer
Support Specialist



Career Cluster 11-
Information Technology



15-1151.00-
Computer User
Support Specialists



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 Computing
Processes, Operating Systems, or
Networking and Data Communications

Written Assessment

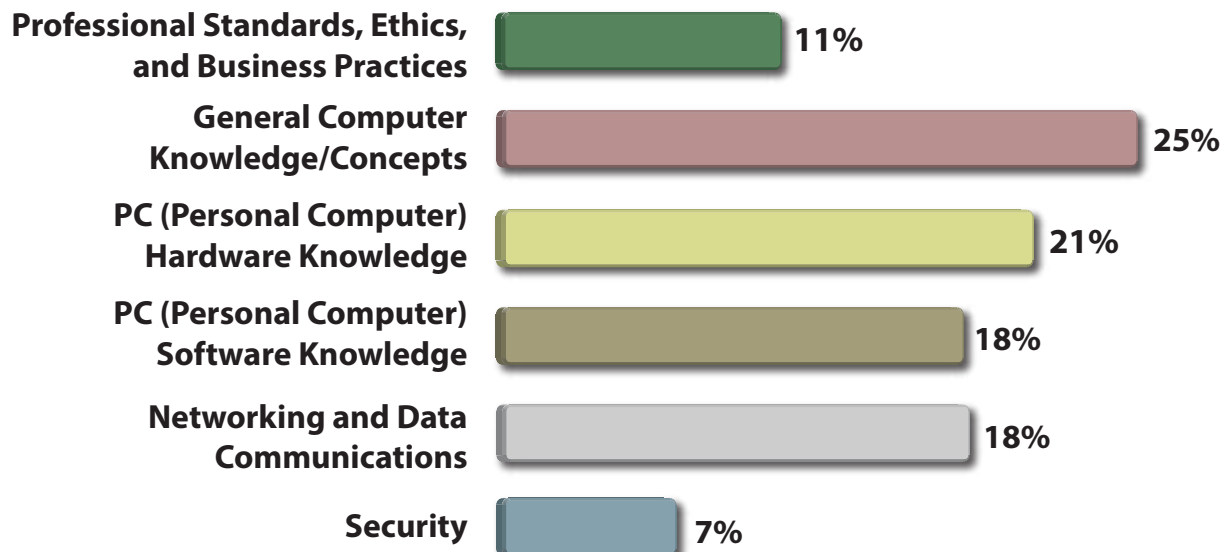
NOCTI written assessments consist of questions to measure an individual's factual theoretical knowledge.

Administration Time: 3 hours

Number of Questions: 159

Number of Sessions: This assessment may be administered in one, two, or three sessions.

Areas Covered



Specific Standards and Competencies Included in this Assessment

Professional Standards and Ethics

- Identify professional standards and etiquette
- Demonstrate awareness of copyright laws and licensing
- Identify characteristics of computer ethics (i.e., Internet, confidentiality, user policies, billing practices)

General Computer Knowledge/Concepts

- Identify and convert between different number systems (i.e., binary, hexadecimal, octal, decimal)
- Identify basic computer terminology (i.e., software, hardware, networking, and security)
- Demonstrate familiarity with basic programming concepts
- Demonstrate understanding of troubleshooting skills
- Identify and apply general safety procedures
- Demonstrate familiarity with basic project management and system analysis concepts



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Specific Standards and Competencies (continued)

PC (Personal Computer) Hardware Knowledge

- Identify current technologies (i.e., processors, memory, storage, interfaces)
- Demonstrate understanding of different printing technologies
- Display knowledge of input devices (cameras, scanners, keyboard and mouse)
- Exhibit knowledge of output devices (i.e., CRT, LCD, printer, iPod, flash media)
- Display knowledge of communication devices (i.e., modem, NIC, hub, router)
- Differentiate between servers, workstations, laptops

PC (Personal Computer) Software Knowledge

- Exhibit familiarity with personal computer operating systems
- Demonstrate familiarity with common software applications
- Exhibit familiarity with email software and etiquette
- Demonstrate proficiency with web browsing software (i.e., search engine items, HTML, JAVA script, XML)
- Demonstrate familiarity with utility software



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Specific Standards and Competencies (continued)

Networking and Data Communications

- Recognize various network types and topologies
- Identify network protocols and LAN access methods
- Demonstrate familiarity with network services (VPN, video conferencing, file/printer sharing, DNS, DHCP, web services)
- Identify data communications media (i.e., Ethernet, 10BASE-T, wireless, cable, satellite)
- Identify various Internet connectivity methods (i.e., cable modem, DSL, T1, dial-up, WiFi)

Security

- Exhibit working knowledge of software security (passwords, anti-malware, etc.)
- Demonstrate understanding of security procedures (physical and logical)



Sample Questions

NOS stands for

- A. network optimizaton system
- B. network overseer system
- C. network optical system
- D. network operating system

ROM is widely used for

- A. temporarily storing of application data
- B. increasing performance of video cards
- C. buffering communications
- D. storing system firmware

The default port for a web server is

- A. 20
- B. 25
- C. 80
- D. 143

A national or global network of computers is called a

- A. LAN
- B. WAN
- C. MAN
- D. PAN

A boot sector virus generally stores itself in the

- A. MBR
- B. FAT
- C. root directory
- D. BIOS

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Sample Questions (continued)

Organizing a solution that proceeds from the general to the specific is called

- A. the modular approach
- B. the end result of structured programming
- C. simple sequence logic
- D. top-down design

When shopping for a flat panel monitor, know that these monitors are measured in _____ pitch.

- A. dot
- B. active
- C. square
- D. LCD

A widely used method to display a network topology is a

- A. network chart
- B. system software
- C. decision table
- D. network protocol

An intranet VPN is used to link

- A. regional or remote offices to headquarters internal network
- B. business partners to headquarters internal network
- C. home office (SOHO) users to headquarters internal network
- D. outside businesses to each other

In the United States, a T1 line consists of _____ channels.

- A. 11
- B. 12
- C. 22
- D. 24

Performance Assessment

NOCTI performance assessments allow individuals to demonstrate their acquired skills by completing actual jobs using the tools, materials, machines, and equipment related to the technical area.

Administration Time: 3 hours

Number of Jobs: 4

Areas Covered:

31% File Management Using Windows GUI

Participants will format 4 diskettes or make folders on a flash drive, locate/copy and create/save specified files to SYSTEM diskette or folder, create/save specified files to the root of SYSTEM and create a folder tree on SYSTEM, copy files into Test.txt, Print Test.txt and write name on it, rename .txt extensions to .doc extensions, save a copy of SYSTEM to DATA1, and submit material to evaluator.

15% Word Processing Applications

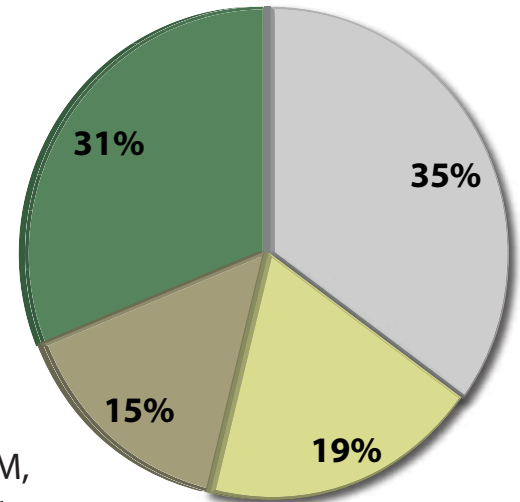
Participants will prepare, save and print, and edit a draft letter, then print, save and submit the completed letter.

19% Spreadsheet Applications

Participants will set-up a spreadsheet, with correct content, format the spreadsheet for printing, print showing formulas, print showing all values, and save and submit the completed spreadsheet.

35% Network Connectivity

Participants will set the proxy server for internet access, identify and record the proxy server address and port, the computer name, computer workgroup or domain, IP address and subnet mask, the DNS server and suffix, DHCP server, MAC address, and connectivity to the server, trace a route to the server, submit the completed worksheet to the evaluator, and turn in diskettes or flash drive.



Sample Job

Word Processing

Maximum Time: 45 minutes

Participant Activity: The participant will use a word processing application to type a business letter using the formatting directions provided. These directions include using various functions such as the thesaurus and spell checker.

