



Provincial Scope Document

IT PC & NETWORK SUPPORT (Secondary) 2009

Contest Length: 6 hrs

Check in time: 8:00

Contest Start: 9:00

Sponsor: Cisco

Purpose of the Challenge:

To avail participants the opportunity to demonstrate their knowledge and challenge their skills in PC maintenance and network support functions. Sponsor

Project Scenario:

For the purpose of this competition, the competitor is considered to be a Junior IT Technician, also known as a Computer Technician. The competitor is employed by a company (the employer) that has a contract to support the computer network of an industrial company (the company).

Your Tasks:

You have been asked by your supervisor to: 1) Assemble or troubleshoot a PC and provide customer service & support. 2) Upgrade PC hardware. 3) Fabricate network cabling as required. 4) Connect computers in a peer-to-peer network and client/server environment. 5) Conduct administrative functions in a client server environment. 6) Configure a Cisco router and/or a switch.

- Performs Windows systems and hardware upgrades.
- Installs software, network applications and hardware devices on workstations and servers.
- Provides network support and administration.
- Optimizes local PC's for best performance.
- Network connectivity & administration.
- Troubleshooting (problem identification & resolution)
- User support skills*
- Properly recorded system documentation.

**A short answer, written component will be used to evaluate the competitor's ability to demonstrate user support as practical functions cannot be simulated within the project environment.*

Skills & Knowledge to be Tested:

- Requisition parts / supplies from store room as required.
- Install Windows and/or Linux operating systems on new PC's.
- Install common software packages on PC's.
- Integrate PC's and users in a network environment to company specifications.
- Basic knowledge of Cisco 2500 or 2600 series routers, and 2900 series switches.
- Basic knowledge of Linux.
- Install and maintain common software applications on file server.
- Upgrade PC hardware.
- Assemble network patch cables.
- Understanding of TCP/IP protocol principles as they apply to modern networks.
- Maintain a log of all activities in an employer's monitor book, including documentation of all changes (system and equipment).
- Understanding of Ethernet hubs and switches.
- Understanding of using a multimeter for cable testing.

Equipment / Tools / Materials

Supplied by Competitor:

- Work bench tools including pliers, screwdrivers, and proper anti-static accessories.
- Recommended: RJ-45 cable crimpers and assembly tool(s).
- One or two power bars with at least six outlets in total.

Supplied by Committee as required:

Software:

- Windows 2003/2008 Server
- Windows 2000 Pro/XP Prof
- Windows 98 2nd Edition CD
- MS Office 2000/XP
- Red Hat Fedora Linux
- Novell SuSe Linux
- Ubuntu Linux

Hardware:

- 1 workstation class PC
- 1 server class PC
- Suitable work surface

Additional Hardware:

- Additional computer upgrade hardware as required.
- Additional network components such as routers or switches as required.

- Raw materials for task completion as required.
- Suitable anti-static work area or earth ground connection available to each competitor

Clothing Requirements:

- Competitors are to be dressed in a clean and safe manner.
- No jewellery on hands or wrists.

Safety Requirements:

Safety awareness/requirements will be maintained at the minimum industry standards at all times. A contestant will not be allowed to compete without the safety equipment noted on this scope document.

Judging Criteria:

- Competitor ability to upgrade and properly configure PC workstation & server.
- Proper installation of operating systems and application software.
- Demonstration of network connectivity and administration.
- Safely utilize trade tools and display of proper methodology.
- Neatness of work area and space management.
- Neat and proper documentation of PC inventory and configuration settings.

Technical Committee:

Edward Lo, P.Eng., UFV Technical Chair email:Edward.Lo@ufv.ca

Robert McAuliffe, UFV email: Robert.McAuliffe@ufv.ca

Gold medal winners at the BC Skills Competition are eligible to compete at the National Canadian Skills Competition on May 20-23, 2009 in Charlottetown, PEI.

Skills Canada BC reserves the right to make changes to the scope document. Please check the website for updates.