



17TH ONTARIO TECHNOLOGICAL SKILLS COMPETITION

IT/PC NETWORK SUPPORT- SECONDARY and POST-SECONDARY LEVELS

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**** Gold medal winners will advance to the Canadian Skills Competition.**

PURPOSE OF THE CONTEST:

To give participants the opportunity to demonstrate their knowledge and challenge their skills in PC maintenance and network concepts.

SKILLS AND KNOWLEDGE TO BE TESTED:

A multiple choice & short answer test will also be used to evaluate the competitor.

- Identify PC hardware and purpose
- Troubleshoot Windows and Linux operating systems
- Install common software packages on PC's
- Install and maintain common network services such as, but not limited to FTP, HTTP, SMTP, DNS
- Integrate PC's and users in a network environment to company specifications
- Basic knowledge of the Cisco routers and the Cisco Catalyst switches (running IOS version 11.0 or greater)
- Basic knowledge of Linux and Windows
- Create network cables, and use a cable tester
- Answer questions about basic networking theories as they apply to modern networks
- Answer general questions about common Ethernet hardware and how it is used in networking
- Fully document all computers and services setup in a log book
- Ability to effectively time manage and multi-task
- Ability to create scripts to automate network tasks
- Ability to create basic web pages

EQUIPMENT AND MATERIALS:

Supplied by Committee:

- All required software media for all operating systems and required services for Linux and Windows
 - Necessary computer hardware
 - Cisco router and switch with IOS 11.0 or greater
 - Suitable work surface
 - Power bars/surge protector
 - Cable tester
 - Raw materials for task completion as required
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Supplied by Competitor:

Work bench tools including pliers, wire cutters, wire strippers, screwdrivers, tape measure, and proper anti-static accessories, RJ-45 cable crimper and assembly tool(s).

TIME TABLE:

Note that the exact order of these areas may not be exactly as defined below.

- Competitors will write a 90 minute test with multiple choice, short answer, and scenario questions on all subject areas
- Competitors will setup:
 - Network infrastructure
 - Routing equipment
 - Network services as per provided network scenario
 - Scripts to automate specific operational and administrative tasks as requested
- Competitors will be responsible for cleaning up their work area to how it was when they first arrived

JUDGING CRITERIA:

- Proper installation of required operating systems, their components, and network services
- Competitors ability to properly configure the PC workstation and servers
- Demonstration of successful network setup 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
- Multiple choice & short answer test
- Competitors ability to effectively manage time
- In the event of a tie, general knowledge questions from the written component will be weighted to differentiate between the tied competitors. If the tie continues, the competitors overall professionalism will be the deciding factor

ADDITIONAL INFORMATION:

- The exact versions of Windows and Linux will be announced at the beginning of the competition. The Windows version will be either Windows 2000 server, or Windows Server 2003. The Linux version will be the latest available release of one of the following distributions: RedHat, SuSE, Debian, or Gentoo. It is therefore recommended that competitors familiarize themselves with the fundamental concepts of each of the above operating systems.
- Due to hardware limitations, virtual machine software will be used in order to increase the number of available server operating system instances. Competitors should be comfortable with using software such as Windows Virtual PC and VM-Ware.

JOB INTERVIEW:

To assist competitors in fully preparing for their eventual job searches and to become valued employees, there will be a job interview incorporated into this contest. It is expected that the competitors arrive prepared WITH A RÉSUMÉ and be ready for interview questions and discussion. Interviews will last 5 minutes in length and be worth 5% of the overall mark. Feedback will be provided to the competitors in order to help prepare them for the real-life experience of job interviews.
