



**2021**  
**23rd ANNUAL SKILLS CANADA MANITOBA**  
**COMPETITION**  
**VIRTUAL EDITION**  
**CONTEST DESCRIPTION**

**CONTEST NAME:** IT – Network Systems Administration

**CONTEST NO:** 39

**LEVEL:** Secondary

**CONTEST DEADLINES:**

- Registration opens online through the Skills Canada Manitoba website on **Monday, February 1, 2021**
- **Friday, March 19, 2021** – Competitor Registration Deadline
- **Thursday, March 25, 2021** – Competitors should confirm: i) Their e-mail addresses, ii) Their ability to use Google Classroom, iii) Their installation of VMWare Workstation Player 16, iv) Their installation of and ability to use Cisco Packet Tracer 8.0 (i.e. Cisco login), and v) Their access to a computer (with Internet access) for Competition tasks prior to Thursday, March 25<sup>th</sup>, by e-mailing Paul Buskell at [pbuskell@wsd1.org](mailto:pbuskell@wsd1.org) and at [paulb@skillsmanitoba.ca](mailto:paulb@skillsmanitoba.ca) .
- Skills Canada Manitoba Competition to be held **April 1 – 8, 2021 (IT – Network Systems Administration)**. Competitors are free to work either from home or from school, but should be mindful of the deadlines involved for each task. **Issues related to moving files from school to work computers and vice-versa are the sole responsibility of each competitor.**
- Deadline for student's work to be submitted – **April 8, 2021**
- Students work to be evaluated by – **April 16, 2021**

- Results to be posted on the Skills Manitoba website and social media sites on **Wednesday, April 21, 2021.**
- There will be an **Orientation Session** prior to the competition. Details and time to be announced by the Provincial Technical Committee. Competitor and advisor attendance is mandatory.

### **PURPOSE OF CHALLENGE:**

To evaluate each competitor's skills and to recognize excellence and professionalism in the field of IT – Network Systems Administration.

### **SKILLS AND KNOWLEDGE TO BE TESTED:**

The competition evaluates a competitor's knowledge of computer and network hardware, assessed across four Domains: Desktop System Configuration, Cyber Security **and/or Computer Hardware**, Networking, and Troubleshooting.

### **PROJECT DESCRIPTION:**

<b>Pre-Competition Day Tasks</b>					
<b>Domain</b>	<b>Task Summary</b>	<b>Assessment</b>	<b>% of Total Competition Mark</b>	<b>Time Released</b>	<b>Time Due</b>
Desktop System Configuration	<ul style="list-style-type: none"> <li>• Install a VM given only the download site URL</li> <li>• Install a service on the VM</li> </ul>	<ul style="list-style-type: none"> <li>• The VM will be zipped and uploaded to a learning management or file storage system</li> </ul>	<b>20%</b>	Thursday, April 1 <sup>st</sup> , 2021, 9:00 a.m.	Tuesday, April 6 <sup>th</sup> , 2021, 3:30 p.m.
Cyber Security  <b>and/or</b>  <b>Computer Hardware</b>  (Case Study)	<ul style="list-style-type: none"> <li>• Given a set of requirements from a fictitious organization, produce a document which explains <b>the requirements needed for their computers (May be software and/or hardware related).</b> Writing for a non-technical readership will be required.</li> </ul>	<ul style="list-style-type: none"> <li>• The security document will be submitted in electronic form</li> </ul>	<b>20%</b>	Thursday, April 1 <sup>st</sup> , 2021, 9:00 a.m.	Tuesday, April 6 <sup>th</sup> , 2021, 3:30 p.m.

# Competition Day Tasks

Domain	Task Summary	Assessment	% of Total Competition Mark	Time Released	Time Due
Networking	<ul style="list-style-type: none"> <li>Given subnetting requirements, be able to subnet a network using VLSM</li> <li>Apply this VLSM subnetting scheme to a simulated network using Packet Tracer</li> </ul>	<ul style="list-style-type: none"> <li>The VLSM calculations will be submitted as an electronic document</li> <li>The Packet Tracer file will be submitted</li> </ul>	<b>30%</b>	Thursday, April 8 <sup>th</sup> , 2021, 8:00 a.m.	Thursday, April 8 <sup>th</sup> , 2021, 9:00 <u>p.m.</u>
Troubleshooting	<ul style="list-style-type: none"> <li>Given VM(s) which are broken, be able to produce technical documentation, complete with screenshots, showing how to resolve each issue.</li> </ul>	<ul style="list-style-type: none"> <li>Technical documentation in the form of presentation files will be submitted, not the VM(s).</li> </ul>	<b>30%</b>	Thursday, April 8 <sup>th</sup> , 2021, 8:00 a.m.	Thursday, April 8 <sup>th</sup> , 2021, 9:00 <u>p.m.</u>

## EQUIPMENT AND MATERIALS:

### Virtual Competition Resource Support Form

A \$40 competition resource subsidy is available to all competitors of the Skills Canada Manitoba Competition – Virtual Edition who are required to purchase items for their respective competition.. It is intended for items that were purchased to support competitors. (e.g. food supplies, materials, technical equipment, tools etc.) Please complete the Virtual Competition Resource Support Form found on the Skills Manitoba website. Please note that receipts or a school invoice are required:

## SAFETY RULES / REQUIREMENTS:

The health, safety and welfare of all individuals involved with Skills Canada Manitoba are of vital importance.

At the discretion of the judges and technical committees, any competitor submission can be denied should the participant not have the required proper safety equipment and/or act in an unsafe manner that can cause harm to themselves or others.

All competitors must complete and submit a Safety Checklist with your project submission. The Safety Checklist is located in the Skills Manitoba Competition Information package as well as on the Skills Manitoba website.

Submissions will not be judged if the completed Safety Checklist is not included in the submission.

## **SPECIAL CONDITIONS / ADDITIONAL INFORMATION:**

**Ethical Conduct:** We recognize that participants will be competing individually in their own schools and therefore not all conditions can be monitored. However, we expect all competitors to compete fairly, respecting and abiding by the established rules in the true spirit of Skills Canada Manitoba.

**Supervision of Competitor:** Competitors will be required to have an adult with them that is qualified /competent in the contest area, to both supervise and ensure safety.

### **COVID 19 Protocol**

Please follow all established COVID 19 protocol as per your school and Manitoba Health guidelines.

## **NATIONAL COMPETITION ELIGIBILITY:**

A mark of **70% or higher** must be scored by the gold medalist in each contest in order for them to attend the National Skills Competition

## **POINT BREAKDOWN/JUDGING CRITERIA:**

<u>Point Breakdown</u>	<u>/100</u>
Desktop System Configuration	20
Cyber Security <b>and/or</b> Computer Hardware	20
Networking	30
Troubleshooting	30

### **Tie (No ties are allowed)**

- First tie-breaker: The competitor with the highest score in the Troubleshooting tasks will be declared the winner.
- Second tie-breaker: The competitor with the highest score in the Networking tasks will be declared the winner.
- Third tie-breaker: The competitor with the highest score in the Case Study will be declared the winner.
- Fourth tie-breaker: The competitor with the fastest combined time in both the Troubleshooting and Networking tasks will be declared the winner.

## **THE IMPORTANCE OF ESSENTIAL SKILLS FOR CAREERS IN THE SKILLED TRADES;**

Essential skills are used in nearly every job and at different levels of complexity. They provide the foundation for learning all other skills and enable people to evolve with their jobs and adapt to workplace change. Good Essential Skills means you will understand and remember concepts introduced in technical training. The level of Essential Skills required for most trades is as high as or higher than it is for many office jobs.

The following 9 skills have been identified and validated as key essential skills for the workplace:

Numeracy, Oral Communication, Working with Others, Continuous Learning, Reading Text, Writing, Thinking, Document Use, Digital.

Essential Skills Required for IT Network – Systems Administration: **Thinking, Problem Solving, Reading Text, Numeracy, Document Use, Writing, and Digital.**

## **TECHNICAL COMMITTEE MEMBERS CONTACT INFORMATION:**

<b>Name</b>	<b>E-mail Address</b>
Gursharn Wander- MITT	<a href="mailto:gursharn.wander@mitt.ca">gursharn.wander@mitt.ca</a>
Paul Buskell – Sisler High School	<a href="mailto:pbuskell@wsd1.org">pbuskell@wsd1.org</a> <a href="mailto:paulb@skillsmanitoba.ca">paulb@skillsmanitoba.ca</a>