



TERRITORIAL COMPETITION

CONTEST DESCRIPTION DOCUMENT

18 – Electrical Installations Post-Secondary Level

(NOTE: Scope may change without notice)

PURPOSE OF THE CHALLENGE

DURATION: 12 HOURS

The contest will consist of a practical test only assessing the contestant's ability in the field of Electrical Wiring.

SKILLS AND KNOWLEDGE TO BE TESTED

For the practical part, the assigned project is to be installed exactly as shown. You will be assigned a specific workstation at which you will do your project. All your work will be done at this station. If at any time you must leave your workstation, just inform one of the competition monitors. If you must leave the competition area, (i.e. to use the washrooms), you must be accompanied by a monitor and you must checkout with the chairperson and check-in again upon your return. Competitors will be expected to Troubleshoot using Test Instruments.

There will be no talking to any person outside of the competition area. "Coaching" of any kind from your advisor, teachers, friends or any other source is strictly prohibited! If you have any questions regarding the assigned project or any of the procedures, please ask the judges or monitors only. **Cell phones are STRICTLY PROHIBITED!** All cell phones must be turned off and left on the judges table prior to starting the project.

Failure to comply with any of the competition rules could result in the disqualification of the contestant, and you will be removed from the building for the remainder of the contest.

All contestants must work in a safe and orderly manner. The competition monitors are there to observe your working habits and will be recording any infractions that may occur. Keep your workstations neat and tidy at all times to prevent any accidents from occurring. Marks will be deducted for any infractions.

This installation must meet all code requirements based on the **2018 Canadian electrical code, part I (23rd edition), safety standard for electrical installations**. You will be allowed to use your own copy for reference during the contest. Upon completion of your work, you will clean up your workstation, (pipe, papers, wire scraps, etc...), and place all your garbage in the box for your materials. Next you will notify a monitor that you are finished. After signing out, you must leave the contest area. The judging process will commence after all competitors are completed or the time limit has expired.

The contest will consist of the assigned project. You have 12 hours to complete the task.

Each contestant will receive his or her own copy of the contest instructions. The instructions will contain a drawing of the layout you must follow, written instructions as to how it is to work, and a complete list of all the materials you will need for the contest. Some blank sheets of paper will also be provided if you wish to do any rough work of drawings during the contest.

All of the measurements used must be exactly as indicated in the specifications and on the drawings you will be given. **You will be allowed to tolerance of plus or minus 2mm on your measurements.**

All equipment, boxes, devices, etc. to be used for this project are supplied. **No outside materials will be allowed.**

Any of the devices that you are to install on boxes, such as switches, lamp-holders, and receptacles, shall be mounted so that all the wires are pushed back in the box and the mounting screws all the way in, to hold the device in place.

NEATNESS: Part of your final mark is based on the neatness of your installation when completed. In the event of a tie score neatness could decide the winner.

C.E.C. Rule #2-108: CLASS OF WORKMANSHIP.

Careful attention shall be paid to the mechanical execution of the work in connection with any electrical installation and any installation that has been

badly arranged or poorly executed, either generally or in any particular way, will not be accepted by the inspection department.

All required clothing and equipment must be as specified in the technical specification or marks will be deducted. If this poses a problem for you, please see the chairperson immediately. If you wait till the day of the competition it will be too late.

ESSENTIAL SKILLS

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

Of the nine skills that have been identified and validated as key essential skills for the workplace, this contest involves the following:

- | | | | | | |
|-------------------------------------|---------------------|-------------------------------------|--------------------|-------------------------------------|---------------------|
| <input type="checkbox"/> | Continuous Learning | <input checked="" type="checkbox"/> | Numeracy | <input checked="" type="checkbox"/> | Thinking |
| <input type="checkbox"/> | Digital | <input type="checkbox"/> | Oral Communication | <input type="checkbox"/> | Working with Others |
| <input checked="" type="checkbox"/> | Document Use | <input type="checkbox"/> | Reading Text | <input type="checkbox"/> | Writing |

EQUIPMENT, TOOLS, SUPPLIES, AND CLOTHING

Provided by the Competitor:

- CSA approved footwear
- Hardhat

Provided by the committee:

- Safety glasses
- Workgloves
- All equipment, boxes, devices, etc. to be used for this project are supplied.

No outside materials will be allowed.

SAFETY REQUIREMENTS

ALL SAFETY RULES MUST BE OBSERVED:

You are required to wear appropriate safety equipment during the practical test. **This includes safety glasses, hard hat, and steel toed boots.**

OLFA retractable knives are not permitted to be used during competition. Remember you will be monitored on your working habits and marks will be deducted if you are found to be working in an unsafe manner. When you are done with your project, you must clean up your workstation area and report to an official to sign out. Do not just leave!

ELECTRICAL WIRING SCHEDULE

- 1) Contestants are required to sign in at 8:00 a.m. on May 4th, 2020 at the wiring area at The Yellowknife Multiplex Arena on the first day of competition. Contest starts at 9:00 am.
- 2) Any late arrivals will not be allowed any extra time.
- 3) From 12:30 p.m. to 1:00 p.m., you will be allowed to take a ½ hour lunch break or contestant may work through lunch.
- 4) The project must be completed by 4:00 p.m. on May 5, 2020.

You have 12 hours to complete the contest so time should not be a factor. The contest is not a race, and the first person done will not necessarily be the winner. If the time limit has expired, you will be marked on all that you have completed. Judging will commence when all contestants have left the contest area after the time limit has expired.

POINT BREAKDOWN / 100 TOTAL

JUDGING REQUIREMENTS

The points allowed for the completion of the different skills examined in the test are allocated as follows:

Function	300
Measurement	200
Installation of wiring system	150
Installation of equipment	100
Wiring (connections and looms)	100
Safety (electrical & personal)	50
Troubleshooting	50
Choice and use of materials	50
TOTAL	1000

ANY GRIEVANCE MUST BE FILED WITH THE TECHNICAL COMMITTEE CHAIRPERSON WITHIN 15 MINUTES OF THE CONTEST COMPLETION. AFTER WHICH THE DECISIONS OF THE JUDGES ARE FINAL. THE RESULTS WILL BE ANNOUNCED AT THE AWARDS CEREMONY ONLY!

1. INSTRUCTIONS AND INFORMATION

- 1.1 Work safety rules must be respected during the competition. The monitors will verify and record these habits throughout the contest.

Competitors who commit safety violations or are guilty of improper use of tools lose the points relative to one or the other or both of these elements of evaluation, according to the case.

- 1.3 This exam is not a speed test. However, the contest must be completed in 12 hours.
- 1.4 No talking is allowed between competitors.
- 1.5 Competitors will immediately report any damage during the competition to the monitors.
- 1.6 The winner is the candidate who accumulates the most points out of 1000 points. In case of a tie, the candidate who completed the contest in the least time will be declared the winner.

End of contest

When you have completed the contest, you must immediately advise the monitor and are strictly obliged to hand in your test and installation plan and leave the competition area.

TECHNICAL COMMITTEE MEMBERS - JUDGES

Dennis Fleming, Tech Chair

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