



2020 23rd ANNUAL SKILLS MANITOBA COMPETITION CONTEST DESCRIPTION

CONTEST NAME: 2 Dimensional CADD

CONTEST NO: N/A

LEVEL: Secondary (Open to Grade 9 and 10 students) – Maximum 8 competitors

CONTEST LOCATION: Red River College – Notre Dame Campus – J121/J123

CONTEST START TIME AND DURATION:
3 Hours

PURPOSE OF CHALLENGE:

Assess the contestant's skills in creating engineering drawings using Computer Aided Drafting and Design (CADD) tools.

SKILLS AND KNOWLEDGE TO BE TESTED:

The contestant will be challenged with interpreting written instructions to create 2D engineering drawings. Skills tested shall include: reading preliminary sketches and specifications; measure an isometric print to create an orthographic projection; create a sketch or sketches of a simple manufactured item.

Other skills/knowledge to be tested will be the use of CADD tools to create proper engineering drawings conforming to CSA, ASME, ANSI and ISO standards (most drafting textbooks conform to these standards). These may include, but are not limited to, defining layers, setting up model and layout spaces, creating annotation styles, defining viewports, printing/plotting drawings.

Drawings to be produced may include working drawings for a **machined part** and/or a **small scale residential floor plan and elevation**.

POINT BREAKDOWN (100 POINTS)

In the event of a tie in scoring, the tie will be broken by the judge's re-evaluation of the relevant documents of the tied competitors.

Accuracy of drawings (40 Points)

- Technical working drawing content
- Dimensioning to standard practices
- Annotations
- Overall Drawing Scale

CADD Utilization (40 Points)

- Layer Structure
- Appropriate Linetypes, Line weights, Colors
- Text and Dimension Styles
- Layout
- Block creation and utilization

Solution (20 Points)

- Completeness (fully detailed and annotated)
- Elegance/Symmetry (placement of views, balanced drawing)
- Printing/Plotting

EQUIPMENT, TOOLS, MATERIALS TO BE PROVIDED BY COMMITTEE:

- Windows compatible hardware loaded with Autodesk AutoCAD 2017 or newer
- There will be a printer supplied on site for the use by contestants and for judging purposes
- No software reference manuals, textbooks or electronic data, will be required or permitted for the duration of the competition

*Note: a template file may be made available for competitors to use as a starting file. Competitors may bring this file to the competition pre-loaded onto a USB Flash Memory stick.

EQUIPMENT, TOOLS, MATERIALS TO BE SUPPLIED BY COMPETITOR:

The competitor will provide the following:

- Scales (metric and imperial)
- Calculator
- Pencil and Paper
- New or formatted USB Flash Memory Stick

WORKSITE SAFETY RULES / REQUIREMENTS:

N/A

FOR MORE INFORMATION PLEASE CONTACT:

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