

# Instrumentation and Control Technician Level 1

## STANDARDIZED LEVEL EXAM (SLE) BREAKDOWN

The following table shows the number of questions per General Area of Competency (GAC) and Competency on the *Instrumentation and Control Technician Level 1 SLE*.

Number of questions on each exam: 96

| Level 1 GAC/Competency                                                 | #         |
|------------------------------------------------------------------------|-----------|
| <b>A. PERFORM SAFETY RELATED FUNCTIONS</b>                             | <b>2</b>  |
| A1. Maintain safe work environment                                     | 0         |
| A2. Use personal protective equipment (PPE) and safety equipment       | 0         |
| A3. Perform lock-out and tag-out procedures                            | 1         |
| A4. Service and calibrate personal safety systems                      | 1         |
| <b>B. USE TOOLS AND EQUIPMENT</b>                                      | <b>2</b>  |
| B1. Use hand and power tools                                           | 0         |
| B2. Use test equipment                                                 | 2         |
| B3. Use access equipment                                               | 0         |
| B4. Use rigging, hoisting and lifting equipment                        | 0         |
| <b>C. ORGANIZE WORK</b>                                                | <b>1</b>  |
| C2. Use computers and related applications                             | 0         |
| C3. Apply codes, standards and regulations                             | 0         |
| C4. Use trade related diagrams, drawings and schematics                | 1         |
| <b>D. USE COMMUNICATION AND MENTORING TECHNIQUES</b>                   | <b>0</b>  |
| D1. Use communication techniques                                       | 0         |
| <b>E. INSTALL AND SERVICE PROCESS MEASURING AND INDICATING DEVICES</b> | <b>15</b> |
| E1. Calibrate and service indicating and recording devices             | 10        |
| E2. Install and service pressure measuring devices                     | 5         |
| <b>F. INSTALL AND SERVICE PNEUMATIC AND HYDRAULIC EQUIPMENT</b>        | <b>6</b>  |
| F1. Apply the principles of air supply                                 | 2         |

| Level 1 GAC/Competency                                                    | #         |
|---------------------------------------------------------------------------|-----------|
| F2. Install tubing and fittings                                           | 2         |
| F3. Install and service pneumatic systems                                 | 2         |
| <b>G. INSTALL AND SERVICE ELECTRICAL AND ELECTRONIC EQUIPMENT</b>         | <b>34</b> |
| G1. Apply the principles of electrical theory                             | 6         |
| G2. Perform wiring installations using the Canadian Electrical Code (CEC) | 4         |
| G3. Apply the principles of DC electricity                                | 15        |
| G4. Apply the principles of AC electricity                                | 7         |
| G5. Apply Boolean logic and principles of digital electronics             | 2         |
| <b>H. INSTALL AND SERVICE FINAL CONTROL ELEMENTS</b>                      | <b>28</b> |
| H1. Install and service regulators and relief valves                      | 9         |
| H2. Install and service control valves and actuators                      | 12        |
| H3. Install and service valve positioners                                 | 7         |
| <b>J. INSTALL AND SERVICE CONTROL SYSTEMS AND PROCESS CONTROL</b>         | <b>8</b>  |
| J3. Install and service programmable logic controllers (PLC)              | 8         |
| <b>Total:</b>                                                             | <b>96</b> |