

PROGRAM UPDATE

Issued: December 19, 2023

Trade: Instrumentation and Control Technician

To: SkilledTradesBC Training Providers
Articulation Chair
System Liaison Person
Youth Train in Trades School Districts

Subject: **Instrumentation and Control Technician Interprovincial Exams aligned to the 2020 RSOS will be implemented**

From: SkilledTradesBC Program Standards

Effective Date: February 1, 2024

Summary: Interprovincial (IP) exams aligned to the 2020 **Instrumentation and Control Technician** Red Seal Occupational Standard (RSOS) will be implemented by SkilledTradesBC as of February 1, 2024. Candidates who write an Instrumentation and Control Technician IP exam on or after February 1, 2024 will receive an exam aligned to the 2020 RSOS.

IP Table: The IP table can be found at <https://skilledtradesbc.ca/instrumentation-control-technician>



Instrumentation and Control Technician

Inter-provincial examinations – Tasks and related number of questions
Number of questions on each exam - 125

Based on 2020 RSOS

Major Work Activity	Task	Number of Questions	
A – PERFORMS COMMON OCCUPATIONAL SKILLS	Task 1 - Performs safety-related functions	3	
	Task 2 - Uses tools and equipment	4	
	Task 3 - Organizes work	3	
	Task 4 - Uses communication and mentoring techniques	2	
			12
B – INSTALLS AND SERVICES PROCESS MEASURING AND INDICATING DEVICES	Task 5 - Installs and services pressure, temperature, level and flow devices	9	
	Task 6 - Installs and services signal transducers	4	
	Task 7 - Installs and services motion, speed, position and vibration devices	4	
	Task 8 - Installs and services mass, density and consistency devices	4	
	Task 9 - Installs and services process analyzers	5	
	Task 10 - Installs and services multiple variable computing devices	4	
			30
	C – INSTALLS AND SERVICES SAFETY AND SECURITY SYSTEMS AND DEVICES	Task 11 - Installs and services safety systems and devices	6
		Task 12 - Installs and services facility security systems (Not Common Core)	0
		Task 13 - Installs and services safety instrumented systems (SIS)	5
			11
D – INSTALLS AND SERVICES HYDRAULIC, PNEUMATIC AND ELECTRICAL SYSTEMS	Task 14 - Installs and services control devices for hydraulic systems	3	
	Task 15 - Installs and services pneumatic equipment	5	
	Task 16 - Installs and services electrical and electronic equipment	6	
			14
E – INSTALLS, CONFIGURES AND SERVICES FINAL CONTROL ELEMENTS	Task 17 - Installs and services valves	6	
	Task 18 - Installs and services actuators	7	
	Task 19 - Installs and services positioners	8	
	Task 20 - Configures and services variable speed drives (VSD)	4	
			25
F – INSTALLS AND SERVICES COMMUNICATION SYSTEMS AND DEVICES	Task 21 - Installs and services control network systems	5	
	Task 22 - Installs and services signal converters	4	
	Task 23 - Installs and services gateways, bridges and media converters	3	
			12
G – INSTALLS AND SERVICES CONTROL SYSTEMS AND PROCESS CONTROL	Task 24 - Establishes and optimizes process control strategies	5	
	Task 25 - Installs and services stand-alone controllers (SAC)	2	
	Task 26 - Installs and services programmable logic controllers (PLC)	5	
	Task 27 - Installs and services distributed control systems (DCS)	4	
	Task 28 - Installs and services human machine interface (HMI)	3	
	Task 29 - Installs and services supervisory control and data acquisition (SCADA) systems	2	
			21
		125	

Details: The Interprovincial Red Seal exam is a summative assessment intended to test an apprentice's trade knowledge gained through both on-the-job experience and technical training. Exam questions are developed by certified trade worker subject matter experts (SMEs) as well as instructors and are intended to reflect trade practices in Canada. The exams are edited, translated, and peer reviewed by additional SMEs before they are implemented. The exams are developed to test the sub-tasks of the most recent Red Seal Occupational Standard.

The Instrumentation and Control Technician 2020 RSOS can be downloaded here:

https://www.red-seal.ca/eng/trades/instrumentctrltech/2020_4v.2rv.3.2w.shtml

A comparative analysis of the sub-task changes from the previous standard can be found on the SkilledTradesBC trade page (<https://skilledtradesbc.ca/instrumentation-control-technician>).

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