

# Machinist Harmonized 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 *Machinist Harmonized Level 1 SLE*.

**Number of questions on each exam: 100**

Level 1 GAC/Competency	#
<b>A. PERFORM SAFETY RELATED TASKS</b>	<b>11</b>
A1. Describe Occupational Health and Safety Regulations	2
A2. Describe WHMIS and Hazardous Materials Safety (HAZMAT)	2
A3. Apply safety practices for shop areas	3
A4. Use lifting equipment	4
<b>B. PERFORM HAND PROCESSES</b>	<b>9</b>
B1. Use and maintain hand tools	3
B2. Use layout tools	3
B3. Use and maintain handheld power tools	2
B4. Mark material and workpiece for identification	1
<b>C. USE APPLIED MATHEMATICS</b>	<b>11</b>
C1. Solve problems involving formulas	3
C2. Perform metric/imperial conversions	2
C3. Solve problems involving geometry	2
C4. Solve problems involving mass, area and volume	2
C5. Solve problems involving trigonometry	2
<b>D. USE MEASURING TOOLS</b>	<b>9</b>
D1. Use linear and Vernier scales	2
D2. Use micrometers	2
D3. Use calipers and gauges	2
D4. Use dial indicators and digital readouts	2
D5. Use optical measuring equipment	1
<b>E. INTERPRET DRAWINGS AND REFERENCE MATERIALS</b>	<b>8</b>
E1. Interpret information found on drawings	3
E2. Determine project requirements	1

*Machinist: Harmonized Level 1 SLE Breakdown*

*January 1, 2023*

Level 1 GAC/Competency	#
E3. Sketch machined parts	1
E4. Use Machinery's Handbook and other reference materials	0
E5. Describe fits and tolerances	3
<b>F. SELECT MATERIALS</b>	<b>8</b>
F1. Describe principles of metallurgy	2
F2. Describe characteristics of ferrous metals	2
F7. Describe the use and maintenance of fuel gas equipment	4
<b>G. REFURBISH COMPONENTS</b>	<b>3</b>
G1. Identify fasteners	2
G2. Identify lubricants and sealants	1
<b>H. USE DRILLING MACHINES</b>	<b>9</b>
H1. Describe drilling machines	2
H2. Select and maintain cutting tools	4
H3. Operate and maintain drilling machines	3
<b>I. USE POWER SAWS</b>	<b>4</b>
I1. Describe power saws	1
I2. Select and maintain band saw blades	1
I3. Operate and maintain band saws	1
I4. Operate and maintain other saws	1
<b>J. USE LATHES</b>	<b>19</b>
J1. Describe lathes	4
J2. Describe cutting tools and holders	5
J3. Operate and maintain lathes	5
J4. Cut tapers	5
<b>K. USE MILLING MACHINES</b>	<b>3</b>
K1. Describe milling machines	2
K2. Describe cutting tools and holders	1
<b>L. USE SUPPORT MACHINES</b>	<b>6</b>
L1. Operate and maintain pedestal grinders	2
L2. Operate and maintain arbour and hydraulic presses	2
L3. Operate and maintain hones and lapping machines	2
<b>Total:</b>	<b>100</b>