

Refrigeration and Air Conditioning Mechanic 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 *Refrigeration and Air Conditioning Mechanic Harmonized Level 1 SLE*.

Number of questions on each exam: 100

Level 1 GAC/Competency	#
A. PERFORM SAFETY RELATED FUNCTIONS	7
A1. Maintains Safe Work Environment	1
A2. Use Personal Protective Equipment (PPE) and Safety Equipment	3
A3. Perform Lock-Out and Tag-Out Procedures	2
A4. Practice Fire Prevention	1
B. USE TOOLS AND EQUIPMENT	8
B1. Use Hand Tools and Equipment	1
B2. Use Portable and Stationary Power Tools	1
B3. Use Cutting, Brazing and Soldering Equipment	1
B4. Use Charging, Evacuation and Recovery Tools	1
B5. Use Diagnostic and Measuring Tools and Equipment	1
B6. Use Access Equipment	1
B7. Use Rigging, Hoisting, Lifting and Positioning Equipment	1
B8. Use Digital Technology	1
C. PERFORM ROUTINE TRADE ACTIVITIES	27
C1. Apply Mathematics and Science	7
C2. Interpret Drawings and Specifications	2
C3. Use Codes, Regulations and Standards	3
C4. Use Manufacturer and Supplier Documentation	1

Level 1 GAC/Competency	#
C5. Organize Work and Maintain Records	1
C6. Select Refrigerants, Compressed Gases and Oils	2
C7. Apply Sealants and Adhesives	1
C8. Select HVAC/R Components and Accessories	7
C9. Select Fasteners, Brackets and Hangers	1
C10. Install Valves	2
D. USE COMMUNICATION TECHNIQUES	1
D1. Use Communication Techniques	1
E. APPLY ELECTRICAL CONCEPTS	28
E1. Use the Principles of Electricity and Electronics	5
E2. Use Electrical Wiring Diagrams and Schematics	7
E3. Apply Motor and Motor Control Theory	7
E4. Select Control Systems	7
E5. Apply Wiring Practices	2
F. APPLY REFRIGERATION AND AIR CONDITIONING THEORY	6
F1. Analyze Heat Pumps and Air Conditioning Systems	3
F2. Analyze Refrigeration Systems	3
G. PLAN REFRIGERATION AND AIR CONDITIONING INSTALLATIONS	4
G1. Perform Work Site Preparation	1
G2. Plan HVAC/R System Installation	3
H. INSTALL REFRIGERATION AND AIR CONDITIONING SYSTEMS	15
H1. Install HVAC/R Piping and Tubing	5
H2. Install HVAC/R Systems	6
H3. Install Control Systems	4
L. SERVICE REFRIGERATION AND AIR CONDITIONING SYSTEMS	4
L1. Maintain HVAC/R Systems	4
Total:	100