



2022-2023

Technical Skills Assessment

Industrial Maintenance Mechanics

Results by Standard

Legend (%)		
0-50%	51-75%	76-100%

Assessment: Industrial Maintenance Mechanics	% Correct	% Correct	% Correct
Number tested: 29	20-21	21-22	22-23
CONTENT STANDARD 1.0: SAFETY	93.33%	77.65%	84.27%
Performance Standard 1.1: Shop Safety	93.33%	77.65%	84.27%
1.1.1 Explain the idea of a safety culture and its importance to industrial	88.89%	66.67%	86.67%
1.1.2 Identify causes of accidents and the impact of accident costs.	100.00%	100.00%	96.67%
1.1.4 Recognize hazard recognition and risk assessment techniques.	100.00%	89.71%	90.83%
1.1.6 Identify equipment power sources.	100.00%	79.41%	85.00%
1.1.7 Knowledge of lock out and tag out procedures.	100.00%	67.65%	83.33%
1.1.8 Demonstrate safe work procedures to use around electrical hazards.	100.00%	72.55%	80.00%
1.1.9 Demonstrate the use and care of appropriate personal protective equipment(PPE).	91.67%	79.41%	85.00%
1.1.10 Explain the importance of hazard communications (HazCom) and Safety Data.	100.00%	84.31%	91.11%
1.1.11 Identify other construction hazards on your job site, including hazardous material exposures, environmental elements, welding and cutting hazards, confined spaces, and fires.	66.67%	66.67%	65.56%
CONTENT STANDARD 3.0: SHOP SKILLS	100.00%	70.59%	82.78%
Performance Standard 3.1: Shop Skills	100.00%	70.59%	82.78%
3.1.1 Apply basic mathematical principles.	100.00%	69.12%	84.17%
3.1.9 Complete a work order.	100.00%	73.53%	80.00%
CONTENT STANDARD 4.0: TOOLS	94.44%	83.33%	90.00%
Performance Standard 4.1: Shop equipment	94.44%	83.33%	90.00%
4.1.1 Demonstrate use and maintenance of basic hand and power tools properly.	100.00%	88.24%	90.83%
4.1.4 Demonstrate the use and care of test and safety equipment.	83.33%	73.53%	88.33%
CONTENT STANDARD 5.0: WELDING	100.00%	69.23%	75.64%
Performance Standard 5.1: Gas Welding/Cutting	100.00%	72.55%	77.41%
5.1.1 Set up gas welding and cutting equipment and accessories.	100.00%	54.90%	74.44%
5.1.2 Identify personal protective equipment required for welding and cutting.	100.00%	88.24%	88.89%
5.1.3 Demonstrate proper lighting, adjusting, and shutting down of a gas torch.	100.00%	74.51%	68.89%

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Performance Standard 5.2: Arc Welding/Cutting	100.00%	61.76%	71.67%
5.2.5 Weld basic joints in flat, horizontal, and vertical positions.	100.00%	61.76%	71.67%
CONTENT STANDARD 6.0: ELECTRICITY & ELECTRONICS	85.71%	61.34%	79.05%
Performance Standard 6.1: Elements of Electricity & Electronics	85.71%	61.34%	79.05%
6.1.8 Demonstrate knowledge of the instruments used to measure electrical circuits.	83.33%	61.76%	83.33%
6.1.9 Know the difference between a single phase and a three phase circuit.	88.89%	60.78%	73.33%
CONTENT STANDARD 7.0: PREVENTIVE AND PREDICTIVE MAINTENANCE	94.44%	76.47%	90.00%
Performance Standard 7.1: Maintenance Scheduling	94.44%	76.47%	90.00%
7.1.1 Explain the function of lubricants.	100.00%	79.41%	86.67%
7.1.8 Perform preventive maintenance on drive components.	100.00%	79.41%	86.67%
7.1.9 List rules for good bearing lubrication.	83.33%	70.59%	96.67%
CONTENT STANDARD 8.0: DRIVE COMPONENTS	72.22%	61.76%	70.00%
Performance Standard 8.1: Drive Component Installation and Maintenance	72.22%	61.76%	70.00%
8.1.1 Identify and understand various drive component couplings.	16.67%	52.94%	61.67%
8.1.3 Understand use of shaft alignment techniques.	66.67%	62.75%	74.44%
8.1.4 Explain the function of gear boxes.	88.89%	50.98%	72.22%
8.1.5 Explain the function of drive sprockets and chains.	83.33%	82.35%	78.33%
8.1.6 Explain the function of sheaves and pulleys.	100.00%	64.71%	60.00%
CONTENT STANDARD 9.0: BEARINGS	88.89%	68.63%	83.33%
Performance Standard 9.1: Bearing Installation, Inspection and Repair	88.89%	68.63%	83.33%
9.1.1 Identify various bearing types and their applications.	88.89%	68.63%	83.33%
CONTENT STANDARD 12.0: HYDRAULIC SYSTEMS	77.78%	71.90%	67.04%
Performance Standard 12.1: Hydraulic Component Maintenance and Repair	77.78%	71.90%	67.04%
12.1.2 Explain the characteristics and components of a hydraulic system.	83.33%	70.59%	58.33%
12.1.3 Identify hydraulic system components.	80.00%	78.82%	70.67%
12.1.4 Troubleshoot hydraulic systems.	66.67%	55.88%	66.67%
CONTENT STANDARD 13.0: PNEUMATIC SYSTEMS	75.00%	51.47%	74.17%
Performance Standard 13.1: Pneumatic Component Maintenance and Repair	75.00%	51.47%	74.17%
13.1.3 Identify pneumatic system components.	77.78%	54.90%	77.78%
13.1.5 Demonstrate pneumatic system troubleshooting procedures.	66.67%	41.18%	63.33%
CONTENT STANDARD 14.0: RIGGING SYSTEMS	85.19%	64.05%	81.85%
Performance Standard 14.1: Rigging	85.19%	64.05%	81.85%
14.1.2 Find the center of gravity.	88.89%	72.55%	87.78%
14.1.3 Identify the rigging and slings used in maintenance work.	100.00%	62.75%	76.67%

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14.1.4 Explain safety inspection procedures for rigging, ropes, and slings.	66.67%	56.86%	81.11%