



2020-2021

Technical Skills Assessment Industrial Maintenance Mechanics

Results by Standard

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

Assessment: Industrial Maintenance Mechanics Number tested: 2	% Correct 17-18	% Correct 18-19	% Correct 20-21
CONTENT STANDARD 1.0: SAFETY	82.15%	83.43%	93.33%
Performance Standard 1.1: Shop Safety	82.15%	83.43%	93.33%
1.1.1 Explain the idea of a safety culture and its importance to industrial maintenance.	84.62%	90.48%	88.89%
1.1.2 Identify causes of accidents and the impact of accident costs.	100.00%	100.00%	100.00%
1.1.4 Recognize hazard recognition and risk assessment techniques.	86.54%	96.43%	100.00%
1.1.6 Identify equipment power sources.	65.38%	71.43%	100.00%
1.1.7 Knowledge of lock out and tag out procedures.	84.62%	64.29%	100.00%
1.1.8 Demonstrate safe work procedures to use around electrical hazards.	61.54%	71.43%	100.00%
1.1.9 Demonstrate the use and care of appropriate personal protective equipment(PPE).	88.46%	85.71%	91.67%
1.1.10 Explain the importance of hazard communications (HazCom) and Safety Data.	89.74%	90.48%	100.00%
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.	82.05%	76.19%	66.67%
CONTENT STANDARD 3.0: SHOP SKILLS	71.79%	83.33%	100.00%
Performance Standard 3.1: Shop Skills	71.79%	83.33%	100.00%
3.1.1 Apply basic mathematical principles.	71.15%	85.71%	100.00%
3.1.9 Complete a work order.	73.08%	78.57%	100.00%
CONTENT STANDARD 4.0: TOOLS	85.90%	80.95%	94.44%
Performance Standard 4.1: Shop equipment	85.90%	80.95%	94.44%
4.1.1 Demonstrate use and maintenance of basic hand and power tools properly.	88.46%	82.14%	100.00%
4.1.4 Demonstrate the use and care of test and safety equipment.	80.77%	78.57%	83.33%
CONTENT STANDARD 5.0: WELDING	76.92%	63.74%	100.00%
Performance Standard 5.1: Gas Welding/Cutting	74.36%	66.67%	100.00%
5.1.1 Set up gas welding and cutting equipment and accessories.	76.92%	52.38%	100.00%
5.1.2 Identify personal protective equipment required for welding and cutting.	79.49%	85.71%	100.00%
5.1.3 Demonstrate proper lighting, adjusting, and shutting down of a gas torch.	66.67%	61.90%	100.00%

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Number tested: 2	18	19	21
Performance Standard 5.2: Arc Welding/Cutting	82.69%	57.14%	100.00%
5.2.5 Weld basic joints in flat, horizontal, and vertical positions.	82.69%	57.14%	100.00%
CONTENT STANDARD 6.0: ELECTRICITY & ELECTRONICS	61.54%	77.55%	85.71%
Performance Standard 6.1: Elements of Electricity & Electronics	61.54%	77.55%	85.71%
6.1.8 Demonstrate knowledge of the instruments used to measure electrical circuits.	57.69%	85.71%	83.33%
6.1.9 Know the difference between a single phase and a three phase circuit.	66.67%	66.67%	88.89%
CONTENT STANDARD 7.0: PREVENTIVE AND PREDICTIVE MAINTENANCE	80.77%	88.10%	94.44%
Performance Standard 7.1: Maintenance Scheduling	80.77%	88.10%	94.44%
7.1.1 Explain the function of lubricants.	76.92%	78.57%	100.00%
7.1.8 Perform preventive maintenance on drive components.	84.62%	100.00%	100.00%
7.1.9 List rules for good bearing lubrication.	80.77%	85.71%	83.33%
CONTENT STANDARD 8.0: DRIVE COMPONENTS	60.90%	59.52%	72.22%
Performance Standard 8.1: Drive Component Installation and Maintenance	60.90%	59.52%	72.22%
8.1.1 Identify and understand various drive component couplings.	46.15%	71.43%	16.67%
8.1.3 Understand use of shaft alignment techniques.	74.36%	80.95%	66.67%
8.1.4 Explain the function of gear boxes.	53.85%	42.86%	88.89%
8.1.5 Explain the function of drive sprockets and chains.	76.92%	57.14%	83.33%
8.1.6 Explain the function of sheaves and pulleys.	50.00%	42.86%	100.00%
CONTENT STANDARD 9.0: BEARINGS	79.49%	66.67%	88.89%
Performance Standard 9.1: Bearing Installation, Inspection and Repair	79.49%	66.67%	88.89%
9.1.1 Identify various bearing types and their applications.	79.49%	66.67%	88.89%
CONTENT STANDARD 12.0: HYDRAULIC SYSTEMS	58.12%	46.03%	77.78%
Performance Standard 12.1: Hydraulic Component Maintenance and Repair	58.12%	46.03%	77.78%
12.1.2 Explain the characteristics and components of a hydraulic system.	61.54%	57.14%	83.33%
12.1.3 Identify hydraulic system components.	50.77%	51.43%	80.00%
12.1.4 Troubleshoot hydraulic systems.	73.08%	21.43%	66.67%
CONTENT STANDARD 13.0: PNEUMATIC SYSTEMS	51.92%	75.00%	75.00%
Performance Standard 13.1: Pneumatic Component Maintenance and Repair	51.92%	75.00%	75.00%
13.1.3 Identify pneumatic system components.	51.28%	80.95%	77.78%
13.1.5 Demonstrate pneumatic system troubleshooting procedures.	53.85%	57.14%	66.67%
CONTENT STANDARD 14.0: RIGGING SYSTEMS	77.78%	74.60%	85.19%
Performance Standard 14.1: Rigging	77.78%	74.60%	85.19%
14.1.2 Find the center of gravity.	92.31%	100.00%	88.89%
14.1.3 Identify the rigging and slings used in maintenance work.	79.49%	61.90%	100.00%
14.1.4 Explain safety inspection procedures for rigging, ropes, and slings.	61.54%	61.90%	66.67%