AUTOMATED MATERIALS JOINING TECHNOLOGY – COURSE 2

Test Code: 9027
Version: 01

Specific Competencies and Skills Tested in this Assessment:

Information about the AC course standards can be found in the front of the AC course teacher guide.

CTE
1A CTE
1B CTE
1C CTE
1D CTE
1E CTE
1G CTE
1H CTE
1J CTE
1L CTE
2A CTE
2B CTE
2C CTE
2D CTE
2E CTE
3A CTE
3B CTE
3C CTE
3D CTE
4A CTE
4B CTE
4C CTE
8B CTE
8F CTE
Automated Materials Joining Technology – Course 2 (continued)

**Literacy**
- RST 11-12.2 Literacy
- RST 11-12.1 Literacy
- RST 11-12.10 Literacy
- RST 11-12.4 Literacy

**Math**
- A.CED.4 Math
- N.Q.2 Math
- N.Q.1 Math
- S.ID.4 Math
- S.ID.6B Math
- S.ID.1 Math
- S.ID.2A Math
- A.REI.3 Math
- G.GMD.3 Math
- N.VM.1 Math
- N.VM.2 Math
- N.VM.3 Math

**Science**
- HS-ETS 1-2 Science
- HS-ETS 1-3 Science
Automated Materials Joining Technology – Course 2 (continued)

**Written Assessment:**

Administration Time: unlimited  
Number of Questions: 75  

**Areas covered:**

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>40%</td>
<td>CTE</td>
</tr>
<tr>
<td>20%</td>
<td>Literacy</td>
</tr>
<tr>
<td>20%</td>
<td>Math</td>
</tr>
<tr>
<td>20%</td>
<td>Science</td>
</tr>
</tbody>
</table>

**Sample Questions:**

What is the most common welding hazard facing you and your team?  
A. Fumes and gases  
B. Using the wrong welding tool  
C. Leading slag on a weld  
D. Electric shock  

If a c-chart contains 50 sample sets, how many points would be expected to be within one standard deviation?  
A. 2 points  
B. 34 points  
C. 48 points  
D. 50 points  

Calculate the components of the vector created by the robotic arm if the initial point is A(5, 4, 4) and B(-3, 5, 8).  
A. (8, -1, -4)  
B. (2, 9, 12)  
C. (-15, 20, 32)  
D. (-2, 1, 4)  

The online testing system provides a built-in, five-function calculator. However, a scientific calculator is recommended for this assessment.