SREB

Automated Materials Joining Technology - Course 1
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
1c. CTE
1d. CTE
1g. CTE
3b. CTE
3c. CTE
3d. CTE
4a. CTE
4b. CTE
4c. CTE
6e. CTE
8a. CTE

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

Math
G.GMD.3 Math
G.GMD.4 Math
G.SRT.11 Math
N.Q.1 Math
N.Q.2 Math
A.CED.4 Math
A.CED.2 Math
G.GPE.7 Math
G.MG.3 Math
Automated Materials Joining Technology – Course 1 (continued)

Science
HS-PS 2-1 Science
HS-ETS 1-1 Science
HS-ETS 1-2 Science
HS-ETS 1-3 Science
HS-ETS 1-4 Science

Written Assessment:

Administration Time: unlimited
Number of Questions: 71

Areas covered:

<table>
<thead>
<tr>
<th>Percentage</th>
<th>Area</th>
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<tbody>
<tr>
<td>42%</td>
<td>CTE</td>
</tr>
<tr>
<td>20%</td>
<td>Literacy</td>
</tr>
<tr>
<td>18%</td>
<td>Math</td>
</tr>
<tr>
<td>20%</td>
<td>Science</td>
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Sample Questions:

You are designing an automated system to pick up parts from a production line and place them into “work in progress” inventory. Which of the following pieces of documentation would you use to communicate the interrelationships of the modules in your system?

A. Control software algorithm
B. 3D rendering
C. Schematic
D. Functional block diagram

On a spec sheet, the target number is 120 mm and the tolerance is ± 4.6 mm. What is the lower spec limit?

A. 115.4 mm
B. 120.4 mm
C. 124.6 mm
D. 129.2 mm

When designing a text fixture to clamp parts, what would be the first task after you’ve studied the customer’s requirements?

A. Build a prototype
B. Develop different approaches to solving the problem
C. Make a decision matrix
D. Decompose the proposed system into small parts