NOCTI

Partner Credential Blueprint

SREB

Automated Materials Joining Technology - Course 4

Code: 9030

AUTOMATED MATERIALS JOINING TECHNOLOGY – COURSE 4

Test Code: 9030
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 App the design and modeling CTE
1B Design and create a model using CTE
1C Conduct model documentation CTE
1D Create models that are math CTE
1G Incorporate proper joint design CTE
1I Create and interpret specification CTE
1H Interpret working drawings CTE
1J Utilize finite element analysis CTE
2A Assume carry out a role CTE
2B Assemble a quantitative plan CTE
2C Develop Gantt charts CTE
2D Assume responsibility for leadership CTE
2E Evaluate the need for CTE
4A Utilize knowledge of the types CTE
4B Apply understanding of shapes CTE
4C Apply molecular science CTE
5A Create a testing protocol CTE
5B Conduct a failure analysis CTE
5C Utilize mechanical testing CTE
5G Apply six sigma CTE
5H Apply Statistical control CTE
6D Create a system utilizing a control CTE
7A Design a system involving the CTE
8C Apply proper joint design CTE
8E Properly size and specify fasteners CTE

Automated Materials Joining Technology – Course 4 (continued)

Literacy
RST 11-12.1 Literacy
RST 11-12.2 Literacy
RST 11-12.4 Literacy
RST 11-12.10 Literacy
WHST 11-12.1 Literacy
WHST 11-12.5 Literacy
WHST 11-12.4 Literacy

Math
A.CED.1 Math
A.SSE.1 Math
F.BF.2 Math
N.Q.2 Math
N.Q.3 Math

Science
HS-ETS 1-2 Science
HS-ETS 1-3 Science

Written Assessment:

Administration Time: unlimited
Number of Questions: 65

Areas covered:

46%	CTE
18%	Literacy
17%	Math
18%	Science

Sample Questions:

What property of steel is associated with corrosion?
A. Tensile strength causes cracks
B. Carbon reacts with oxygen or hydrogen
C. Heating and re-heating eliminates cracks
D. Carbon reacts with nitrogen to form cracks

The result of Miner's Rule for a machine part is 0.96. What conclusion can be made about the machine part?
A. Since $0.96 < 1$, the part does not fail
B. Since $0.96 < 1$, the part fails
C. Since $0.96 > 1$, the part does not fail
D. Since $0.96 > 1$, the part fails

Which of the following is a true expected benefit of converting a manual assembly process to a "lights out" manufacturing assembly process?
A. Increased capital expenditures
B. Decreased maintenance costs
C. Increased product price
D. Decreased number of injuries