NOCTI

Partner Credential Blueprint

SREB

Automated Materials Joining Technology - Course 3

Code: 9028

AUTOMATED MATERIALS JOINING TECHNOLOGY – COURSE 3

Test Code: 9028
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
1c CTE
3d CTE
4a CTE
4c CTE
5a CTE
5b CTE
5e CTE
5f CTE
5g CTE
5J CTE
6a CTE
6b CTE
6d CTE
6f CTE
7a CTE
8a CTE

Literacy
RST.11-12.1 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 11-12.4 Literacy

Automated Materials Joining Technology – Course 3 (continued)

Math
A-CED Math
A.CED.2 Math
A.CED.4 Math
F.BF.B.5 Math
N.VM.2 Math
N.VM.4 Math
N-Q.1 Math
S.IC.1 Math
S.IC.4 Math
S-ID.1 Math
S.ID.4 Math
S.ID.6 Math

Science
HS_ETS1-1 Science
HS ETS 1-2 Science
HS ETS 1-3 Science
HS ETS 1-4 Science
HS ETS1A Science
HS ETS1 C Science

Written Assessment:

Administration Time: unlimited
Number of Questions: 67

Areas covered:

45%	CTE
21%	Literacy
18%	Math
16%	Science

Sample Questions:

As a manufacturing engineer in an electric vehicle manufacturing factory, you have been asked to design a resistance spot welding (RSW) process for joining a thin copper connector to an aluminum electrode. Which of the following is a process parameter that you must specify when setting up the process?

A. Amplitude
B. Pressure
C. Temperature
D. Current

Calculate the Takt time (in minutes per unit) during a month with 4 weeks when six 7-hour days are worked each week and a customer placed an order for 1,800 units. If cycle time is 5 min/unit, will the manufacturing company meet the customer's demand?

A. Yes, because cycle time is less than the takt time of 5.6 minutes.
B. Yes, because cycle time is greater than takt time of 0.093 minutes.
C. No, because cycle time is less than takt time of 5.6 minutes.
D. No, because cycle time is greater than takt time of 0.093 minutes.

Which answer best describes a qualitative criteria for switching to a fully automated welding system?

A. Better comprehend welding defects
B. Reduce turn around time on welded parts
C. Increase throughput of high quality welded parts
D. Better understand the relationship between automation and manual welding