Reference No.																	

SELF-ASSESSMENT GUIDE

Qualification	5 AXIS CNC MACHINE OPERATION NC III
Unit of Competency Covered	• Write 5 AXIS CNC machine program • Set-up 5 axis CNC machine, cutting tools, and work piece • Perform 5 axis CNC machine operation • Perform post 5 axis CNC machine operations

Instruction:
Read each question and check the appropriate column to indicate your answer.

Can I?	YES	NO
WRITE 5 AXIS CNC MACHINE PROGRAM		
• Interpret drawing to produce component according to specifications. *		
• Determine sequence of CNC machining operations to produce component according to industry standard*		
• Select cutting tools according to the requirements of the operations *		
• Calculate cutting speeds and feed rate based on cutting tools and work piece specifications *		
• Fill up process/operation sheets with relevant machine work piece, fixture tools and measuring instructions to be used*		
• Generate sequence of programs using software for manual and automatic programming*		
• Use conversational or ISO CNC programming operations based on machine capability*		
• Simulate program and edit if required according to standard operating procedure*		
• Save program or machine file according to standard operating procedures*.		
• Download and save programs to machine files according to standard operating procedures*		
• Copy proven program and saves to back up program files according to standard operating procedures*		
SET-UP 5 AXIS CNC MACHINE, CUTTING TOOLS, AND WORKPIECE		
• Power up machine according to operating manual procedure *		
• Check oil and coolant level according to manufacturer's specification*		
• Check air and hydraulic pressure according to manufacturer's specification*		

• Check and set machine zero point to required position according to standard operating procedure*		
• Select and mount work holding devices according to standard operating procedure*		
• Select cutting tools according to required sequence of operation*		
• Mount cutting tools to designated tool holders according to standard operating procedure*.		
• Set cutting tools with tool holder according to required length.*		
• Mount cutting tools to machine magazine/carrousel according to tool number location*.		
• Mount work piece to work holding devices to required level of accuracy using measuring tools and instruments in accordance with worksite procedures*.		
• Set machine coordinate system values to required position according to standard operating procedure*		
• Set and verify work piece coordinate system values to required position according to standard operating procedure*		
PERFORM 5-AXIS CNC MACHINE OPERATIONS		
• Close machine guard according to safety standard*		
• Conduct dry run in accordance to desired tool path movement *		
• Edit program to required tool path movement*		
• Produce components to the required dimensions, tolerance, fits, limits and surface finish according to job requirements*		
• Check program parameters based on computed data*		
• Maintain air pressure level according to machine operating manual*		
• Maintain cooling system according to viscosity requirements*		
• Maintain cutting tool sharpness according to work procedure*		
• Open machine guard according to machine operating manual*		
• Clean and deburr work piece on the fixture according to standard operating procedure*		
• Inspect and measure work piece according to drawing specification *		

PERFORM POST 5 AXIS CNC OPERATIONS		
• Unload work piece from work holding devices according to work instruction*		
• Clean and deburr work piece according to work instruction*		
• Inspect and measure work piece according to drawing specification*		
• Sign out operation sheet according to workplace procedures*		
• Submit work piece and operation sheet to immediate supervisor according to work place procedures*		
• Shut off machine according to manufacturer's operating manual*		
• Store and maintain tool based on established procedures*		
• Tag and report defective tools according to workplace instructions *		
• Perform good housekeeping and 5S on work area *		
• Dispose waste according to waste management and environmental procedures *		
• Apply safety practices according to OSHS*		
I agree to undertake assessment in the knowledge that information gathered will only be used for professional development purposes and can only be accessed by concerned assessment personnel and my manager/supervisor.		
Candidate's Name and Signature	**Date**	