

**Assessment Evidence
Guide
For
“Jr. Network Assistant”
Level-2
(Summative Assessment)**

Dec 2021



**National Vocational & Technical
Training Commission**

Title of Qualification: Level 2 National Qualification Certificate, in Internet of Things (Jr. Network Assistant)	CS Code:	Level: 2	Version: 01
Competency Standard Title: Perform Basic Computer Installation Install/Configure hardware components/peripheral devices Prepare office documents Perform internet surfing and email management Perform basic communication skills Perform installation and configuration of network cables Install, configure and troubleshoot switches & routers Install system software on the devices Configure hardware RAID (Redundant Array of Independent disk) Carry out electrical installation Follow Safety Rules	Assessment Date (DD/MM/YY): Assessment Time: 3.5 Hours		

Candidate Details	Name: Registration/Roll Number:
Guidance for Candidate	<p>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration & assessment):</p> <p>Assessment Task 1: Candidate is required to establish P2P connection between two similar devices (without Hub/ switch):</p> <ul style="list-style-type: none"> • Make network cables (crossover) • Assign IP addresses to devices • Check the connectivity using ping command <p>Assessment Task 2: Candidate is required to make a network using star topology.</p> <p>And complete:</p> <ol style="list-style-type: none"> 1. Knowledge assessment test (Written or Oral) 2. Portfolios at the time of assessment (if any)

Minimum Evidence Required	<p>During a practical assessment, under observation by an assessor, you will complete:</p> <p>Assessment Task 1</p> <p>Performance Criteria 1: Configure hardware components / peripheral devices as per manuals.</p> <p>Performance Criteria 2: Select and install drivers.</p> <p>Performance Criteria 3: Perform functional test for the installed Hardware components / peripheral devices.</p> <p>Performance Criteria 4: Detect hardware errors/problems.</p> <p>Performance Criteria 5: Identify solution of hardware errors.</p> <p>Performance Criteria 6: Calculate and select the length of cable as per requirement</p> <p>Performance Criteria 7: Prepare crossover and straight network cable</p> <p>Performance Criteria 8: Check the cable connectors with cable tester</p> <p>Performance Criteria 9: Check connectivity between devices (cable and switches/ routers/ hardware components) manually</p> <p>Performance Criteria 10: Replace connectors / hardware components if required</p> <p>Performance Criteria 11: Ping all network nodes to check the connectivity</p> <p>Performance Criteria 12: Check the cable connectivity with each network node</p> <p>Performance Criteria 13: Conduct test to check the data rate and bandwidth of network</p> <p>Assessment Task 2</p> <p>Performance Criteria 1: Connect PC's or devices to wireless network</p> <p>Performance Criteria 2: Install the network switch according to scenario</p> <p>Performance Criteria 3: Diagnose common network problems</p> <p>Performance Criteria 4: Identify the IP addresses assigned to your computer and your network</p>
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	<p>Portfolios required at the time of assessment (if any) for</p> <p>Performance Criteria 1: Diary log or any other evidence of work completed on Perform Basic Computer Installation</p> <p>Performance Criteria 2: Diary log or any other evidence of work completed on Install/Configure hardware components/peripheral devices</p> <p>Performance Criteria 3: Diary log or any other evidence of work completed on Prepare office documents</p> <p>Performance Criteria 4: Diary log or any other evidence of work completed on Perform internet surfing and email management</p> <p>Performance Criteria 5: Diary log or any other evidence of work completed on Perform basic communication skills</p> <p>Performance Criteria 6: Diary log or any other evidence of work completed on Perform installation and configuration of network cables</p> <p>Performance Criteria 7: Diary log or any other evidence of work completed on Install, configure and troubleshoot switches & routers</p> <p>Performance Criteria 8: Diary log or any other evidence of work completed on Install system software on the devices</p> <p>Performance Criteria 9: Diary log or any other evidence of work completed on Configure hardware RAID (Redundant Array of Independent disk)</p> <p>Performance Criteria 10: Diary log or any other evidence of work completed on Carry out electrical installation</p>
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Assessors Judgment Guide (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: Registration/Roll Number: Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: Assessor's code: Signature of the Assessor:

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓				
Knowledge Assessment	✓	✓					
Other Requirement							

Each Assessment Task (with performance criteria)				
Assessment Task 1		Description of assessment task 1 Candidate is required to establish P2P connection between two similar devices (without Hub/ switch): <ul style="list-style-type: none"> • Make network cables (crossover) • Assign IP addresses to devices • Check the connectivity using ping command 		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Configure hardware components / peripheral devices as per manuals.			
2	Select and install drivers.			
3	Perform functional test for the installed Hardware components / peripheral devices.			
4	Detect hardware errors/problems.			
5	Identify solution of hardware errors.			
6	Calculate and select the length of cable as per requirement			
7	Prepare crossover and straight network cable			
8	Check the cable connectors with cable tester			
9	Check connectivity between devices (cable and switches/ routers/ hardware components) manually			
10	Replace connectors / hardware components if required			
11	Ping all network nodes to check the connectivity			
12	Check the cable connectivity with each network node			
13	Conduct test to check the data rate and bandwidth of network			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

Each Assessment Task (with performance criteria)				
Assessment Task 2		Description of assessment task 2 Candidate is required to make a network using star topology.		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1	Connect PC's or devices to wireless network			
2	Install the network switch according to scenario			
3	Diagnose common network problems			
4	Identify the IP addresses assigned to your computer and your network			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

KNOWLEDGE ASSESSMENT

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Guidance for Candidate	To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.
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Candidate Details	Name:Registration/Roll Number: Candidate Signature:.....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor:Assessor's code: Signature of the Assessor:.....

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
Why update/upgrade of antivirus is necessary?	
Define application software?	
Define microprocessor.	
What is the purpose of option "Device Manager" in window software?	
Can you copy Excel table in word or Power point?	
What is the difference between CC and BCC?	
What is the difference between strikethrough and crossover cables	
What is the difference between IP and MAC address	
What is RAID and why is it used?	

Questions (Candidate confidently answered questions correctly and demonstrated understanding of the topics and their application)	
What is Ohm's Law?	
What is PPE?	
What are different type of workplace hazards?	

ANSWER KEY

Sr.	Answers
1	Because computers are regularly threatened by new viruses
2	A software that performs specific tasks for the end user
3	An integrated circuit that contains all the functions of CPU of a computer
4	It displays a graphical view of the hardware that is installed on the computer
5	Yes
6	CC: Carbon copy, BCC: Blind Carbon copy CC and BCC both can be used to send email to multiple recipients but in BCC, the recipients list will be hidden
7	Tera Term PuTTY KiTTY SmarTTY
8	IP address is assigned to a network interface at layer 3 while MAC address is assigned to network layer at layer 2 (by manufacturer)

9	Redundant Array of Independent/Inexpensive Disks (RAID) is a technology that allows storing data across multiple hard drives. The purpose of RAID is to achieve data redundancy to reduce data loss and, in a lot of cases, improve performance
10	<p>Ohm's law states that the current through a conductor is proportional to the voltage across the conductor.</p> <p>$V=IR$</p> <p>Where V is the voltage across the conductor and I is the current flowing through it.</p>
11	Personal Protective Equipment
12	Biological, Chemical, Physical, Fire, Electrical