PERFORM COMPUTER NETWORKING

UNIT CODE: ICT/OS/IT/CR/01/5/B
UNIT DESCRIPTION
This unit covers the competencies required to perform computer networking activities. It involves identifying network types, connecting network devices, configuring network components and workstations, networking testing, monitoring and maintaining.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
These describe the key outcomes which make up workplace function.	These are assessable statements which specify the required level of performance for each of the elements. *Bold and italicized terms are elaborated in the Range.*
1. Identify network type and components	1.1. Types of computer networks are identified 1.2. *Network components* are identified *1.3.Network topologies* are identified 1.4. Transmission media is identified 1.5. Benefits of computer Networking are identified
2. Connect Network devices	2.1. Tools, materials and devices for network are identified 2.2. Network devices connection is done according *National and international communication standards* 2.3. Strength and connectivity tests of cables and equipment are done.
3. Configure network devices	3.1. *Network software* is installed and configured according to user manuals. 3.2. IP addressing scheme configuration is done 3.3. Types of subnet masks are identified.
5. Configure LAN network type	5.1. Devices for LAN network configuration are identified 5.2. Connection of the devices in LAN is done 5.3. Configuration of the LAN network is done.
4. Perform Network testing	4.1.*Testing tools* are assembled 4.2.Network components are tested 4.3.Testing of *connectivity medium* between components is done 4.4.Network testing is done

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	4.5.Testing report is generated

RANGE

Variable	Range **_May include but is not limited to:_**
1. Network components	- Routers - Switches - Hub - RJ 45 cables - Ports - Computers - printers
2. Network topology	- Star - Ring - Mesh - Hybrid - Point to point
3. Network types	- LAN - WAN - MAN
4. Network software	Operating system
5. Testing tools	- Cable tester - Volt meter - Tester - LAN tornado

REQUIRED KNOWLEDGE AND UNDERSTANDING

The individual needs to demonstrate knowledge and understanding of:
- Network Types
- Network topologies
- Network components
- LAN Configuration Techniques
- Transmission Media in Network

FOUNDATION SKILLS

The individual needs to demonstrate the following foundation skills:
- Communications (verbal and written);
- Proficient in ICT;
- Time management;
- Problem solving;
- Decision making;
- First aid;

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and understanding and range.

1. Critical Aspects of Competency	Assessment requires evidence that the candidate:
	1.1 Identified network components, topologies and types
	1.2 Identified Network Transmission media
	1.3 Identified Tools, materials and devices for network connection
	1.4 Connected Network devices according to the National and international communication standards
	1.5 Installed and configured Network software according to user manuals.
	1.6 Configured The Network Using IP addressing scheme
	1.7 Configured the LAN network
	1.8 Assembled Testing tools
	1.9 Performed Network testing
	1.10 Performed Network monitoring using Appropriate tools
2. Resource Implications	The following resources must be provided: Resources same as that of workplace are advised to be applied

		Including;
		2.1 Computers
		2.2 Media
		2.3 Routers
		2.4 Switches
		2.5 Ports Etc
3.	Methods of Assessment	Competency may be assessed through: 3.1 Observation 3.2 Oral questioning 3.3 Practical demonstration
4.	Context of Assessment	4.1 Competency may be assessed individually in the actual workplace and simulated setting of the actual work place
5.	Guidance information for assessment	5.1 Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.