

LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

Intro to Networking Cables & Hardware

Workshop Level



LAPT — London Academy of Professional Training

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Reference IT-NIC-W • IT Centres

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AT A GLANCE

REFERENCE	IT-NIC-W
AWARD	Certificate
ASSESSMENT	440 marks — 264 to pass (60%)
PREREQUISITES	None
VALIDITY	Lifetime
AWARDING BODY	LAPT — London Academy of Professional Training

CURRICULUM

1 Basic Network Setup 3 chapters · 12 classes 90 marks	
• 1 Understanding Network Cable Types and Their Functions — 4 classes › 1.1 Explore Different Network Cable Types and Uses › 1.2 Compare Ethernet Cable Categories and Their Performance › 1.3 Identify Key Components of Fiber Optic Cables › 1.4 Understand Cable Selection for Various Networking Scenarios • 2 Configuring Basic Network Hardware — 4 classes › 2.1 Identifying Key Components of Network Hardware › 2.2 Understanding Network Cables and Their Functions › 2.3 Connecting and Configuring Routers and Switches › 2.4 Setting Up Basic Network Security Protocols	• 3 Designing and Implementing a Basic Network Setup — 4 classes › 3.1 Understanding Network Topologies › 3.2 Selecting Appropriate Networking Cables › 3.3 Configuring Network Devices: Routers and Switches › 3.4 Implementing a Small Office Network Setup
2 Cable Types and Uses 3 chapters · 12 classes 65 marks	
• 1 Understanding Basic Cable Types — 4 classes › 1.1 Exploring Cable Types: An Introduction to Networking Cables › 1.2 Identifying Twisted Pair Cables: Characteristics and Applications › 1.3 Understanding Coaxial Cables: Their Role and Benefits in Networking › 1.4 Analyzing Fiber Optic Cables: Features and Networking Advantages • 2 Exploring Cable Specifications and Performance — 4 classes › 2.1 Understanding Cable Specifications: A Comprehensive Overview › 2.2 Identifying Cable Types: Characteristics and Uses › 2.3 Evaluating Cable Performance: Assessing Key Metrics › 2.4 Selecting the Right Cable: Application-Based Choices	• 3 Advanced Applications and Future Trends in Networking Cables — 4 classes › 3.1 Exploring High-Speed Cable Technologies › 3.2 Understanding Fiber Optic Advances and Integration › 3.3 Investigating Innovative Shielding Techniques › 3.4 Predicting Future Trends in Networking Cables

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Introduction to Networking

3 chapters · 12 classes

65 marks

• 1 Networking Cables: Types and Characteristics — 4 classes

- › 1.1 Exploring Networking Cable Varieties
- › 1.2 Identifying Characteristics of Ethernet Cables
- › 1.3 Understanding Fiber Optic Cable Features
- › 1.4 Comparing Performance in Networking Cables

• 2 Network Hardware Essentials: Devices and Functions — 4 classes

- › 2.1 Exploring Network Devices: An Overview of Switches and Routers
- › 2.2 Understanding the Role of Network Servers and Clients
- › 2.3 Configuring Basic Network Hardware: Practical Setup of a Home Network
- › 2.4 Troubleshooting Hardware Issues: Identifying and Solving Common Problems

• 3 Physical Network Setup and Troubleshooting — 4 classes

- › 3.1 Understanding Network Cable Types and Uses
- › 3.2 Identifying Networking Hardware Components
- › 3.3 Assembling a Basic Physical Network Setup
- › 3.4 Diagnosing and Resolving Network Cable Issues

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Networking Hardware Overview

3 chapters · 12 classes

90 marks

• 1 Understanding Networking Hardware Components — 4 classes

- › 1.1 Identifying Key Networking Components
- › 1.2 Exploring the Functions of Network Devices
- › 1.3 Comparing Different Types of Networking Cables
- › 1.4 Understanding Cabling Standards and Practices

• 2 Cable Types and Their Applications — 4 classes

- › 2.1 Understanding Ethernet Cables: Categories and Speeds
- › 2.2 Exploring Coaxial Cables: Structure and Use Cases
- › 2.3 Examining Fiber Optic Cables: Types and Benefits
- › 2.4 Matching Cable Types to Networking Needs: Practical Applications

• 3 Integrating Hardware for Optimized Network Performance — 4 classes

- › 3.1 Understanding Networking Hardware Components
- › 3.2 Identifying Key Cable Types and Their Functions
- › 3.3 Connecting Devices for Optimal Network Performance
- › 3.4 Troubleshooting Common Hardware Integration Issues

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Network Safety and Best Practices

3 chapters · 12 classes

65 marks

• 1 Understanding Network Safety Protocols — 4 classes

- › 1.1 Identifying the Importance of Network Safety Protocols
- › 1.2 Understanding Common Network Threats and Vulnerabilities
- › 1.3 Implementing Basic Network Security Measures
- › 1.4 Evaluating Network Safety Protocols for Continuous Improvement

• 2 Implementing Hardware Security — 4 classes

- › 2.1 Understanding Network Hardware Risks
- › 2.2 Identifying Vulnerabilities in Network Devices
- › 2.3 Implementing Physical Security Measures
- › 2.4 Applying Best Practices for Hardware Protection

• 3 Advanced Techniques for Ensuring Network Integrity — 4 classes

- › 3.1 Understanding Threats to Network Integrity
- › 3.2 Implementing Robust Security Protocols
- › 3.3 Monitoring Network Activity for Anomalies
- › 3.4 Applying Best Practices to Maintain Integrity

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Troubleshooting Network Issues

3 chapters · 12 classes

65 marks

• 1 Chapter 1: Understanding Basic Network Troubleshooting Tools and Techniques — 4 classes

- › 1.1 Identifying Common Networking Tools
- › 1.2 Understanding How to Use a Cable Tester
- › 1.3 Diagnosing Network Connectivity Issues
- › 1.4 Applying Basic Troubleshooting Techniques in Practice

• 2 Chapter 2: Diagnosing Network Hardware Failures and Performance Issues — 4 classes

- › 2.1 Identifying Common Network Hardware Failures
- › 2.2 Analyzing Symptoms of Network Performance Issues
- › 2.3 Utilizing Diagnostic Tools for Hardware Troubleshooting
- › 2.4 Implementing Solutions for Network Hardware Problems

• 3 Chapter 3: Resolving Complex Network Configuration and Connectivity Problems — 4 classes

- › 3.1 Diagnosing Network Configuration Errors
- › 3.2 Identifying Connectivity Issues in Complex Networks
- › 3.3 Implementing Solutions for Common Network Failures
- › 3.4 Validating Network Problem Resolution Effectiveness

