

Syllabus of Four Weeks Vocational Training Online Mode

Day	Topic	Mode
1.	Networking Concepts <ul style="list-style-type: none"> • Basic networking concepts • Network architecture & topology 	Online- Zoom
	Job Aid 1 & 2 [Managing, developing and troubleshooting Local Area Network and Identification of different types of cables router components & Interfaces] <ul style="list-style-type: none"> • Create physical local area network • Troubleshoot the LAN and diagnose the faults • Identify the different types of cables like Console cable, CAT-5/ CAT-6, Optical fiber switches and their interfaces 	Supported by Video
2.	Networking Concepts, TCP/IP & MPLS <ul style="list-style-type: none"> • Networking protocols • IP Addressing, Subnetting and Supernetting 	Online- Zoom
	Job Aid 3 & 4 [Managing Large network by dividing into smaller logical networks using concepts of subnetting & supernetting.] <ul style="list-style-type: none"> • Convert Binary to Decimal and vice-versa • Assigning IPv4 & IPv6 Address to computer Check IP address assigned • Determine Network Address from an IP address • Create subnets from the given network address 	Supported by Video
3.	IPv6 Addressing <ul style="list-style-type: none"> • Need of IPv6 • IPv6 addressing Scheme • IPv6 Routing • IPv6 Over IPv4 Network 	Online- Zoom
	Job Aid 5 & 6 <ul style="list-style-type: none"> • IPv6 Routing • IPv6 Tunneling 	Supported by Video
4.	Router Architecture & Routing Principles <ul style="list-style-type: none"> • Router components and its functions • Routing principles 	Online- Zoom
	Job Aid 7 & 8 [Preliminary configuration of router for internetworking of different networks.] Types of routing, Routing algorithm <ul style="list-style-type: none"> • Understanding the working of a router • Different types of show commands & their purpose • Assignment of IP address and enabling layer 3 connectivity 	Supported by Video
5.	Router Architecture & Routing Principles <ul style="list-style-type: none"> • Types of routing, Routing algorithm 	Online- Zoom

	<p>Job Aid 9 & 10 [Configuration of Router for providing WAN service to Local Area Network by Static/Dynamic Routing in an IP network]</p> <ul style="list-style-type: none"> • Understand the configuration of static/dynamic routing in cisco routers. • Analysis of output of ip route commands & their purpose 	Supported by Video
6.	<p>IP NETWORKING-I</p> <ul style="list-style-type: none"> • HTTP & FTP services • HTTPS • HTML • FTP • FTP Session 	Online-Zoom
	<p>Job aid 11 [Configuration of HTTP services for hosting web documents]</p> <ul style="list-style-type: none"> • Understand Internet Information Services tool and its installation • How to configure web services using IIS tool <p>Job aid 12 [Configuration of FTP services for quick availability of necessary files.]</p> <ul style="list-style-type: none"> • Understand Internet Information Services tool and its installation. • How to configure FTP services using IIS tool 	Supported by Video
7.	<p>IP NETWORKING –II</p> <ul style="list-style-type: none"> • DHCP & Proxy Services • DHCP • DHCP goals • DHCP components • DHCP message format 	Online-Zoom
	<p>Job Aid 13 [Configuring DHCP server]</p> <ul style="list-style-type: none"> • Installation of DHCP Server • Configuration of DHCP server <p>Job Aid 14 [Configuring Proxy server]</p> <ul style="list-style-type: none"> • Installation of Proxy Server • Configuration of Proxy server 	Supported by Video
8.	<p>CYBER SECURITY (IPC)</p> <ul style="list-style-type: none"> • Information & Cyber Security • Information security components • Managing information security • Technology and defense • Framework for information security 	Online-Zoom
	<p>Job Aid 15 ANALYSING THE SECURITY OF HOSTS IN NETWORK USING TOOLS</p> <ul style="list-style-type: none"> • Installation of security tool Professional Look at Net • Identify the parts of the main window of Professional Look at Net • Scan network with default setting of Professional Look at Net & analyze result. • Scan the ports of selected host of the network & Analyzer <p>Job Aid 16 [Implementing system and data security using windows firewall]</p> <ul style="list-style-type: none"> • Enabling and Disabling Windows firewalls 	Supported by Video

	<ul style="list-style-type: none"> • Allow a program/port to communicate through Windows Firewall • Block program/port to communicate through Windows Firewall 	
9.	Concept of proxy and UTM firewall	Online-Zoom
	Job Aid 17 & 18 Implementing squid proxy services using virtual box	Supported by Video
10.	Introduction to Kali Linux and working with command line	Online-Zoom
	Job Aid 19 & 20 Demonstration of packet analyzing tools using Kali Linux	Supported by Video
11.	Programing Language <ul style="list-style-type: none"> • Basic of Programming Languages • Concept of Object Oriented Programming 	Online-Zoom
	Job Aid 21 & 22 <ul style="list-style-type: none"> • Programming in JAVA 	Supported by Video
12.	Programing Language <ul style="list-style-type: none"> • Java Templates • Java Classes 	Online-Zoom
	Job Aid 23 & 24 <ul style="list-style-type: none"> • Programming in JAVA 	Supported by Video
13.	Python Programing Language	
	Job Aid 25 & 26 <ul style="list-style-type: none"> • Programming in Python 	
14.	Python Programing Language	
	Job Aid 27 & 28 <ul style="list-style-type: none"> • Programming in Python 	
15.	Data Base Technologies <ul style="list-style-type: none"> • Introduction to Data Bases Systems 	Online-Zoom
	Job Aid 29 & 30 <ul style="list-style-type: none"> • Simple Data Base Creation • Query of Simple Data Base 	Supported by Video
16.	Data Base Technologies <ul style="list-style-type: none"> • Various Data Base Technologies • Oracle • MySql • Hadoop 	Online-Zoom
	Job Aid 31 & 32	Supported

	<ul style="list-style-type: none"> • Simple Program in sql 	by Video
17.	Android APP Development	Online-Zoom
	Job Aid 33 & 34 <ul style="list-style-type: none"> • Installation of Android Studio 	Supported by Video
18.	Android APP Development	Online-Zoom
	Job Aid 35 & 36 <ul style="list-style-type: none"> • Simple APP Development in Android 	Supported by Video
19.	IoT and Industry 4.0	Online-Zoom
	Job Aid 37 and 38 <ul style="list-style-type: none"> • Industry Case Study 	Supported by Video
20.	Assessment and Group Discussion , Presentation <ul style="list-style-type: none"> • Assessment will be done • Group Presentation by Trainees- Online • Doubt Clearing • Certificate distribution -Online 	Online-Zoom
	Job Aid 39 and 40 <ul style="list-style-type: none"> • Presentation by Trainees 	