

Shri. Aillak Pannalal Digambar Jain Pathashala's

Jain-Minority Institute

Hirachand Nemchand College of Commerce, Solapur

Autonomous College

(Affiliated to P. A. H. Solapur University, Solapur)

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Structure and Proposed Syllabus Certificate Course in Hardware & Networking Compulsory Add on Course for P. C. A.

Compulsory Add on Course for B.C.A. No of **Semester: III Internal Exam Teaching** Code: CCB Total /Learning Theory **Practical Certificate Course in Hardware** sessions in & Networking hours. 20 30 50 40 **Subject Title** To Train the students to acquire knowledge in PC Hardware, Software and Course the field of Networking. **Objectives** The Students will understood and gain knowledge in the basics of PC assembling and networks. The student will able to know the Basic of Computer assembling and Course

Course	trouble shooting.
Outcomes	This course will provide the brief knowledge of Computer networking and
	trouble shooting.

Module 1 Introduction to Computer Fundamentals 6

Introduction

- Computer Fundamentals
- Introduction to Computers
- Types of Computers
- Introduction to Input Output Devices
- Introduction to Storage Devices
- Principals of Data Communication

Module 2 Hardware PC Assembling & Troubleshooting 8

- Hardware Configuration
- Introduction to basic components of a typical PC
- Assembling a PC
- Formatting, Installing Operating System and other system software
- Basic Trouble shooting during the assembling
- Basic troubleshooting of PC

Module 3	Networking Fundamentals	8	
 Introduction to various types of cables and connectors used in networking Introduction to networking and networking concepts, networking topology and protocols The 7 Layer architect Three way handshake 7 Layer components Repeaters, Hubs, Switches, Bridges, Routers WAN Hubs vs Switches 			
Module 4	Network Installation and Configuration	7	
 Installing the NIC Card, MAC Address LAN Standards – Ethernet, Token Ring Structured Cabling o LAN Practical's IP Addressing and IP Classes TCP/IP Concepts and configuration of IP Address Joining computer to a AD Domain Basic network troubleshooting 			
Module 5	Firewall and Proxy Servers	9	
 Kinds of firewalls Packet filters Application level filtering Circuit level gateways Dynamic packet filters Distributed firewalls Filtering Services Packet filtering Implementing policies 			
Module 6	Hardware Lab-I (PC Assembling & Troubleshooting)	2	