



National PG College, Lucknow – 226001
(An Autonomous College of University of Lucknow)




BSC PHYSICS/COMPUTER SCIENCE (CBCS)

Semester 2

General / Skill	Paper No	Name of the Paper	Hours per Week			Credits	Evaluation Scheme	Total
			L	P	T			
Skill	201	Hardware Technology	1	-	1	2	100 Marks	
		TOTAL CREDITS				2	TOTAL MARKS	100

*L – Lecture; P – Practical; T - Tutorial


Principal
National P.G. College
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Department of Physics/Computer Science
Choice based Credit System Elective Paper U.G.
Semester II
Hardware Technology

Paper Code	CBCS 023	L	T	P	C
Paper Name	Hardware Technology	1	1	0	02
Learning Objective	<ul style="list-style-type: none">• This structure is designed to make the student aware of computer hardware and electronic components.• Paper will also help in tackling basic device management like repairing and identifying electronics and computer related issues.				
Course Outcomes	<ul style="list-style-type: none">• On the completion of the course the student shall understand and explore the constructional features of basic electronic devices.• To develop understanding of computer networks and communication basics				

CREDIT-I


15 Hours

Basic Device Information

Electronic Components (Testing & Repairing & Identification) - Motherboard,
RAM, Processor
Power Supply-SMPS
Uninterrupted Power Supply (UPS) (03)
Types of Monitor- Mono, Analog, Digital, TFT
Generation of Motherboards
RAM, ROM & CPU (03)
Assembling the Computer System
Hardware & Printer Troubleshooting (04)


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CREDIT-II


15 Hours

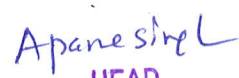
Windows Installation

Installation of Windows XP, Windows 7 and Windows Server 2003(02)
Remote Desktop and Remote Assistance-Settings and uses, Active Directory installation, Managing & Security Implementation of clients through Active Directory, Antivirus Installation, System Restore.(03)

Networking Concepts

Cable Designing-cross, straight through, I/O Punching
Installing NIC Cards
Installing LAN/WAN- Implementation of Network
Sharing folders, drives and printers (02)
Installation and configuration of wireless ADSL Routers,
Configuring security of AP Wi-Fi. (03)


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Text Book:


1. Computer Networks by Andrew S Tanenbaum
2. Upgrading and repairing PCs by Scott Mueller's
3. The Architecture of Computer Hardware, Systems Software, and Networking: An Information Technology Approach by Irv Englander.
4. Computer Networks by Andrew Tanenbaum.
5. Computer Essentials: Computer Science Basics, Architecture, Design, Application Concepts, Quantitative Approach, Engineering, Technology, Ethics, Forensics, Graphics, Hacking & Hardware. By Jerry Ramonyai.
6. Electronic instrumentation by H.S. Kalsi.

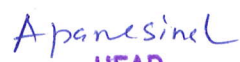
References Books:

1. Computer Networks and Internet by Douglas E Comer
2. Data Communication and Networking by Brijender Singh
3. Computer Networks by Peter Norton
4. Computer Networking with Internet Protocols by William Stallings

CO-PO MAPPING:

	PO1
CO1	2
CO2	3
3	High Correlation
2	Moderate Correlation
1	Low Correlation
0	No Correlation


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