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- (A) **COURSE TITLE & CODE** : **ENTREPRENEURSHIP DEVELOPMENT,
G – 501**
- (B) **LEVEL** : **FIVE**
- (C) **BRANCH/ DISCIPLINE** : **INFORMATION TECHNOLOGY**
- (D) **RATIONALE** :

Small and medium enterprises (SME) play a crucial role in economic growth and development. Today ample opportunities are available for diploma passouts especially in the service sector in small and medium enterprises in order to exercise their technical and entrepreneurial skills. To name a few today a diploma holder has career prospects both for wage and self-employment in:

- Call centers
- Geographical information system
- Medical transcription
- Business process outsourcing
- Retailing
- Consultancy
- Transportation-Airlines, railways, Buses, Trucks
- Banking
- Insurance
- Housing and construction
- Tourism & Hospitality

By establishing their own enterprises they are not only accelerating the process of economic development but also creating gainful employment for masses. The myth that entrepreneurs are born and not made no longer holds good. Experiences of last few decades clearly establish the fact that it is possible to develop entrepreneurs through planned efforts. Today such designed efforts are required in polytechnics in order to reduce the unemployment among polytechnic pass outs by way of promoting self-employment/entrepreneurship as career option, thereby creating more job providers than job seekers. This course provides a foundation for students to undertake entrepreneurial activities as career option.

(E) TEACHING AND EXAMINATION SCHEME:

Sl. No.	Course Code	Name of Course	Teaching Scheme					Examination Scheme				Total Marks
			Pre-requisite	L	T	P	C	Theory		Practical		
								ET	PA	ET	PA	
1.	G- 501	Entrepreneurship Development	-	4	2	-	6	75	25	-	25	125

(F) DETAILED COURSE CONTENTS

CHAPTER – 1.0 CONCEPTUAL FRAMEWORK OF ENTREPRENEURSHIP

- Definition of entrepreneurship
- Difference between self-employment and entrepreneurship
- Characteristics of entrepreneurs
- Need for promotion of entrepreneurship and small business
- Opportunities in service industries.
- Assessing entrepreneurial characteristics

CHAPTER - 2.0 ENTREPRENEURSHIP DEVELOPMENT PROGRAMMES (EDP)

- Entrepreneurship Awareness Camp (EAC)
- Entrepreneurship Development Programme
- Role of government in organizing EDP
 - Establishment of specialized institutions at national level such as NIESBUD, SISI, NISIET, EDI, NSTEDB, IED AND CES
- Establishment of district industry centre
- Financial support provided by government, development banks and nationalized public sector bank
- Institutional support system such as :
 - Small Industries Development Organization
 - National Small Industries Corporation
 - State Small Scale Industries Development Corporation
 - Small Scale Industries Board
 - Industrial Estates

CHAPTER – 3.0 FORMS OF BUSINESS ORGANIZATION

- Forms of ownership
 - Sole proprietorship
 - Partnership
 - Cooperative society
 - Joint – stock company
 - Private limited companies

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- Public limited companies

CHAPTER – 4.0 LEGAL CONSIDERATIONS

- Rules and regulations regarding formation of new enterprise
- Intellectual property
- Patents
- Copyrights
- Trademarks

CHAPTER – 5.0 ENTREPRENEURIAL MOTIVATION TRAINING

- Achievement Motivation
- Games for Developing Entrepreneurial Motivation
- Creativity
 - Concept of creative/divergent thinking
 - Blocks to creativity
 - Creative idea generation
 - Creative exercises

CHAPTER – 6.0 BECOMING AN ENTREPRENEUR

- Buying an existing business
- Buying a franchise business
- Starting your own business

CHAPTER – 7.0 PROJECT SELECTION, FORMULATION & APPRAISAL

- Project selection
- Project Formulation
- Project appraisal

CHAPTER – 8.0 WORKING FROM HOME

- Growth & development of the home-based work environment
- Benefits & challenges of working from home
- Tips for home-based enterprises
- Profiles & case studies of successful home-based enterprises

CHAPTER – 9.0 LEADING ENTREPRENEURS IN INDIA

- Brief case study of leading entrepreneurs in hospitality and tourism

(G) SPECIFICATION TABLE SHOWING DISTRIBUTION OF MARKS AND HOURS

Sl. No.	Chapter No.	Chapter Title	Hours	Marks			
				K	C	A	Total Mark
1.	1.0	CONCEPTUAL FRAMEWORK OF ENTREPRENEURSHIP	12	4	4	-	8
2.	2.0	ENTREPRENEURSHIP DEVELOPMENT PROGRAMMES (EDP)	8	3	2	-	5
3.	3.0	FORMS OF BUSINESS ORGANIZATION	8	4	2	-	6
4.	4.0	LEGAL CONSIDERATIONS	12	8	4	-	12
5.	5.0	ENTREPRENEURIAL MOTIVATION TRAINING	16	4	2	2	8
6.	6.0	BECOMING AN ENTREPRENEUR	8	4	4	4	12
7.	7.0	PROJECT SELECTION, FORMULATION & APPRAISAL	16	4	4	4	12
8.	8.0	WORKING FROM HOME	8	-	3	3	6
9.	9.0	LEADING ENTREPRENEURS IN INDIA	8	-	3	3	6
Total			96				75

Abbreviations: K=Knowledge level, C= Comprehension Level, A=Application level

(H) SUGGESTED IMPLEMENTATION STRATEGIES:

- Important concepts will be explained
- Students will be given relevant exercises
- Students will be given case-studies of entrepreneurs from relevant fields
- Students will visit an entrepreneur

(I) SUGGESTED LEARNING RESOURCES :

(a) Reference Books:

S. No.	Title	Author, Publisher, Edition & Year
1.	Business entrepreneurship	Sharad Jawaderkar, Shobha Dodlani Suvichar Prakashan Mandal, Pune, 1999
2.	Entrepreneurial Development	S.S. Khana S. Chanda and Co. Ltd., New Delhi, 1999
3.	Entrepreneurial Development concepts and practices	Dilip Sarwate Everest Pub. House, Pune, 1996
4.	Business India (Periodical)	

(b) Others:

- Handouts
- Entrepreneurial games
- Cases
- Sample Project reports

HOURS:

MARKS:

SUGGESTED LIST OF PRACTICALS:

Not Applicable

SUGGESTED LIST OF LABORATORY EXPERIMENTS/ DEMONSTRATIONS

- Exercises to stimulate creativity
- Checklist for evaluating a franchise
- Filling a franchise agreement
- Preparing a sample business plan for a service organisation
- Case-studies of successful home-based careers
- Layout of the home office
- Personal presentation

- (A) **COURSE TITLE AND CODE : MAJOR PROJECT (IT-604N)**
- (B) **LEVEL : SIX**
- (C) **BRANCH/DISCIPLINE : INFORMATION TECHNOLOGY**
- (D) **RATIONALE :**

The project will enable the students to integrate the knowledge and software development skills acquired during past years of diploma programme. He would be able to design and develop an identified software system independently in particular using the software taught in fifth level.

(A) TEACHING AND EXAMINATION SCHEME:

Course Code	Name of Course	Teaching Scheme					Examination Scheme				Total Marks
		Pre-requisite	L	T	P	C	Theory		Practical		
							ET	PA	ET	PA	
IT-604W IT-604N	Project	-	1	-	5	6	-	-	100	25	125

(F) PROJECT DEVELOPMENT APPROACH

Project Selection

- Project must be based on the knowledge acquired by the students. Students must be aware of the languages, packages and hardware that he is using for his project.
- Repetition of projects may be avoided as far as possible.
- The students should be given some time for project selection. At the end of it, the student must submit a 3 to 4 page document giving outline of project and feasibility study report.
- Feasibility study includes:
 - Time feasibility.
 - Software, Hardware availability.
 - Information source etc.
- The students has to independently carry out the project.
- Project may be an application software development

Project Design

In this phase the students will actually start analyzing the system and collect data/information for their project. The student should.

- The student should analyse and design the system.
- The student must adopt standard norms and procedures.
- Design must be modular & there must be clear.
- The student must submit “Synopsis” giving details about system analysis and design aspects. He should individually contact the concern teacher to clear his views about the project.

Project Development

Remaining time may be utilized for actual coding, testing, of project.

- Independent module development is necessary.
- The project guide must continuously assess their project during its development.
- Taking into consideration shortcoming & suggestions given during testing, the final software should be developed and submitted by the end of the term.

Project Report

The following section should be considered while writing the project:

- Project Title
- Feasibility study
- Design Aspect
- Developmental Aspect (including source code)
- Books/Manual referred

Project Valuation

Marks Distribution:-

- Innovative idea 5%
- Project Design 25%
- Working Model 45%
- Oral 25%

(G) IMPLEMENTATION

The teachers are expected to motivate the students to take innovative projects either from the polytechnic system or from the industry. Teachers should evaluate the project as per the guidelines given above.

- (A) **COURSE TITLE AND CODE : COMPUTER NETWORK
(IT-601N)**
- (B) **LEVEL : SIX**
- (C) **BRANCH/DISCIPLINE : INFORMATION TECHNOLOGY**
- (D) **RATIONALE :**

The objectives of this subject are to make students learn the technology of the computer networks. The focus is on the aspects of wide area networking. This subject will give opportunity to see the demonstration of network devices, cables, connectors etc. The student would also be able to understand the total setup of a wide area network in particular.

(E) **TEACHING AND EXAMINATION SCHEME:**

Course Code	Name of Course	Teaching Scheme				Examination Scheme				Total Marks	
		Pre-requisite	L	T	P	Theory		Practical			
						ET	PA	ET	PA		
IT-601N	Computer Networks	-	4	2	1	7	100	25	25	25	175

(F) **DETAILED COURSE CONTENT**

CHAPTER – 1.0 MULTIPLEXING AND ERROR CORRECTIONS

- Multiplexing
 - Many To One/One To Many
 - Types Of Multiplexing
 - Frequency-Division Multiplexing (FDM)
 - Time-Division Multiplexing (TDM)
 - Wavelength Division Multiplexing
 - Inverse Multiplexing
- Multiplexing Application:
 - The telephone System
 - Common Carrier Services and Hierarchies
 - Analog Services
 - Digital Services

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- Error detection and correction
 - Types of errors
 - Single-Bit Error
 - Multiple-Bit Error
 - Burst Error
 - Detection
 - Redundancy
 - Vertical Redundancy Check (VRC)

CHAPTER – 2.0 SWITCHING AND NETWORK LAYER FUNCTION

- Circuit switching
- Space-Division Switches
- Time-Division Switches
- Space- and Time-Division Switching Combinations
- Packet switching
- Datagram Approach
- Virtual Circuit Approach
- Message Switching
- Network Layer and switching
- Connection-Oriented and Connectionless Services

CHAPTER – 3.0 INTEGRATEDSERVICESDIGITAL NETWORK (ISDN)

- Services
 - Bearer Services
 - Teleservices
 - Supplementary Services
- History
 - Voice Communication over Analogue Networks
 - Voice and Data Communication over Analogue Networks
 - Analogue and Digital Services to Subscribers
 - Integrated Digital Network (IDN)
 - Integrated Services Digital Network (ISDN)
- Subscriber Access To The Isdn
 - IB Channels D Channels H Channels
 - User Interfaces
 - Functional Grouping
 - Reference Points
 - The Isdn Layers Physical Layer
 - Data Link Layer
 - Network Layer
 - Broadband Isdn Services
 - Physical Specifications

CHAPTER – 4.0 FRAME RELAY AND ATM

- Frame Relay Layers
 - Physical Layer
 - Data Link Layer
- Frame Relay Operation
 - Relay
 - Switching
 - Congestion Control
- Implementation
 - ATM Design Goals
 - Packet Networks
 - Mixed Network Traffic
 - Cell Networks
 - ATM topology
 - ATM Protocol Architecture
 - ATM Layer

CHAPTER – 5.0 TRANSPORT AND APPLICATION LAYERS OF TCP/IP

- Transport layer
 - User Datagram Protocol(Udp)
 - Transmission Control Protocol(Tcp)
- Application Layer
 - Domain Name System (Dns)
 - Telnet
 - File Transfer Protocols
 - File Access Using Nfs And Rpc
 - Electronic Mail: Sntp
 - Simple Network Management Protocol (Snw)
 - Gopher
 - Wide Area Information Service (Wais)
 - Hypertext Transfer Protocol (Http)
 - World Wide Web (WWW)
 - Uniform Resource Locator (Url)
 - Browser Architecture

(G) SPECIFICATION TABLE SHOWING DISTRIBUTION OF MARKS AND HOURS

Chapter No.	Name of Chapter	Hours	Marks			
			K	C	A	Total Mark
1.0	Multiplexing And Error Corrections	21	8	7	7	22
2.0	Switching And Network Layer Function	17	8	4	4	16
3.0	Integrated services digital Network (ISDN)	17	6	6	4	16
4.0	Frame Relay And ATM	20	10	6	6	22
5.0	Transport and application layers of TCP/IP	21	10	8	6	24
	Total	96				100

Abbreviations: K=Knowledge level, C= Comprehension Level, A=Application level

(H) IMPLEMENTATION STRATEGIES

The subject teachers are expected to demonstrate the working of network to the students. They should also take them on visit to telephone exchanges and ISPs to demonstrate multiplexing, switching techniques, ATM, ISDN network setup and communication devices used. The teacher should also demonstrate the students the use and working of http, gopher, DNS, SMTP etc.

(I) LEARNING RESOURCES SUGGESTED TO BE USED

1. Lab manuals if available
2. CAI packages if available
3. Existing software systems for demonstrations

(J) SUGGESTED LIST OF PRACTICALS:

Hours:16 Marks :25

- Working with http, gopher, smtp on windows OS
- **Students should be given exposure to the emerging technology, the concept of multiplexing, switching techniques and ISDN set-up by arranging visits to the Telephone exchanges and ISPs.**

(K) REFERENCE BOOKS

Author	Title	Edition	Year of Publication	Publisher & Address
Behrouz,Forouzan	Data communication and networking			Tata Mcgraw hills,N Delhi
	Data & Computer Communications,	6/e	2000	
Joe Casad & Dan Newland, (MCSE, MCT)	Networking Essential – Training Guide			Techmedia, New Delhi
James Chellis, et al	Networking Essential – Study Guide			Techmedia publications, New delhi

(A) COURSE TITLE AND CODE : NETWORK MANAGEMENT
(IT-602N)

(B) LEVEL : SIX

(C) BRANCH/DISCIPLINE : INFORMATION TECHNOLOGY

(D) RATIONALE :

The objectives of this subject are to inculcate practical skills in the students relating to network installation, administration and management. The focus is on the practical aspects of networking using windows server 2003 and Internet information server operating systems. This subject will give hands-on-training on the installation and configuration of network operating system, working with network devices, cables, connectors etc. The student would also troubleshoot the network related problems.

(E) TEACHING AND EXAMINATION SCHEME:

Course Code	Name of Course	Teaching Scheme				Examination Scheme				Total Marks	
		Pre-requisite	L	T	P	Theory		Practical			
						ET	PA	ET	PA		
G- 501	Network Installation & Management	-	4	-	2	6	100	-	50	25	175

(F) DETAILED COURSE CONTENT

CHAPTER – 1.0 INTRODUCTION TO -WINDOWS SERVER 2003

- Windows server 2003 editions
 - Standard edition
 - Enterprise edition
 - Datacentre edition
 - Web edition
- Windows server 2003 features and capabilities
 - Operating system kernel features
 - File system and disk subsystem feature
 - Networking services features.

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- Domain Controller And Active Directory
 - Concept of Domain
 - Domain controller roles
 - Assigning roles
 - Scheme master
 - Domain naming master
 - Active Directory Concept
 - Active directory structure
 - Centralized and decentralized Administrative control
 - Active directory Users and computers
 - Maintaining active directory

CHAPTER – 2.0 WINDOWS SERVER 2003 INSTALLATION, BOOTING AND REGISTRY

- Installation requirements
 - Hardware requirement and preparation
 - Server specification, Disk partitioning and file systems
 - FAT, FAT32, NTFS.
 - Upgrade vs. new installation
- Understanding installation method
 - Using winnt.exe, winnt32.exe
 - Automated installation
 - Applying service pack
- Operating system Boot
 - MBR code Executes
 - Boot selection menu
 - Boot.ini
 - Advance options (safe mode, VGA mode, last known good configuration, debugging mode)
 - Creating bootable floppy
- Overview of the Registry
 - Registry structure
 - Windows server 2003 registry
 - Registry structure
 - Hives and Hive files
 - Registry data items
 - HKEY_CLASS_ROOT
 - HKEY_CURRENT_USER
 - HKEY_USERS
 - HKEY_LOCAL_MACHINE
 - HKEY_CURRENT_CONFIG
 - Regedit.exe
- Troubleshoot with registry
 - Exporting Keys
 - Adding items to registry
 - Deleting registry items
 - Changing registry values
 - Using registration files

CHAPTER - 3.0 CRATING A SECURE USER ENVIRONMENT

- Planning
 - Concept of user account, groups and security
 - Planning groups
 - Naming conversions
 - Policy planning – Account policies, user rights, audit policy, system policy
- Managing groups
 - Global version local groups
 - Domain Groups
 - Group scope
 - Special built in accounts
- Managing User Accounts
 - domain and local users
 - Special built in Accounts
 - Creating user accounts
 - Copy of user accounts
 - Disabling and deleting user accounts
 - Renaming user accounts
 - Editing user environment profiles.
- Disaster planning and recovery
 - Backup , Restore
 - Recovery consol
 - Automated server recovery
 - Creating boot disks
 - Understanding crashes
 - Windows error reporting
 - Chkdsk

CHAPTER – 4.0 NETWORKING WITH TCP/IP

- TCP/IP protocol stack
- Configuring TCP/IP
 - IP address
 - Subnet Mask
 - IP address class
 - Default gateway
 - TCP/IP tools
 - Ping
 - Tracert
 - Pathping
 - IP config
 - ARP
 - Route
- DHCP
 - Concept of DHCP
 - IP address allocation
 - DHCP communication
 - DHCP and name resolution

CHAPTER – 5.0 WINDOWS SERVER 2003 SERVICES AND SERVERS

- Network Services
 - File transfer and data sharing
 - Device and drive sharing
 - Network printer
- Configuring Windows 2003 based Servers
 - Using configure your server wizard to add or remove server roles
 - Configuring mail server
 - POP3 and SMTP server
 - Configuring Terminal server
 - Concept of VPN server
 - Proxy server
- Introduction to web server
 - Internet and intranet
 - IIS and its application
 - Configuring IIS
 - Domain name system (DNS)
 - Technologies and their purpose – WWW, FTP, Microsoft transaction server, Microsoft index server, Microsoft management console

CHAPTER – 6.0 NETWORK TROUBLESHOOTING

- Hardware Based Monitoring Tools
 - Logical troubles shooting methodology
 - Electronic tools function and its selection - Digital Volt meter, Time Domain reflectometer, cable testers, Oscilloscope.
- Common Troubleshooting Areas-
 - Cable plant and Network Hardware problems (H/W such as connector, cable, hub/switch, modems), isolating problems to node or Network, Peer Network performance, Power problems, upgrading (O.S. protocol conflicts)
- Methods for Isolating the problem
 - Same line, different computer
 - Same computer, different line
 - Swapping components
- Isolating segment of network with terminator

(G) SPECIFICATION TABLE SHOWING DISTRIBUTION OF MARKS AND HOURS

Chapter No.	Name of Chapter	Hours	Marks			
			K	C	A	Total Mark
6.0	Introduction To -Windows Server 2003	8	6	4	4	14
7.0	Windows Server 2003 Installation, Booting And Registry	12	5	6	7	18
8.0	Crating A Secure User Environment	10	3	5	6	14
9.0	Networking With TCP/IP	10	4	6	8	18
10.0	Windows Server 2003 Services And Servers	10	3	5	8	16
11.0	Network Troubleshooting.	14	5	7	8	20
	Total	64				100

Abbreviations: K=Knowledge level, C= Comprehension Level, A=Application level

(H) IMPLEMENTATION STRATEGIES

Teachers are expected to develop practical skills related to installation of windows server 2003 with IIS, Mail server etc. In addition to basic OS installation and configuration It is expected to cover network installation, administration and management also. The students should be able to set-up an Intranet and trouble shoot Problems related to OS in the case of breakdown.

(I) LEARNING RESOURCES SUGGESTED TO BE USED (if available)

4. Lab manuals
5. CAI packages
6. OHP transparencies
7. Existing software systems

(J) SUGGESTED LIST OF EXPERIMENTS/ DEMONSTRATIONS:

Hours:32 Marks :50

- **Creating Domain name, driver installation, working with disk administrator connecting cables and establishing network.**
- **Creating group, user account, setting user profile**
- **Configuring print-server and sharing printer on network.**

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- **Use network performance options**
 - **Configuring Different servers viz. mail server, terminal server, IIS and its different Services.**
 - **Handling other network problems, - Operating System conflicts, hardware and protocol conflicts.**
 - Resolve common problems with cards, cables and Hardware
 - Troubleshooting labels and connectors
 - **Troubleshooting hubs/switches, Troubleshooting Modems**
 - **Tutorial on selected topic may also be given.**
 - **Demonstrate CAI packages if available**

(K) REFERENCE BOOKS

S.No.	Title	Edition, Year of Pubication	Author, Publisher & Address
1.	MS-Internet Information Server 4.0 (MCSE) ESTPREP)		Emmett Dulaney MCSE Prentice Hall India, New Delhi
2.	Windows Server 2003: The complete reference	2003	Kathy Ivens, et.al tata Mcgraw-hill publishing company limited, New Delhi
3.	Networking Essential – Training Guide		Joe Casad & Dan Newland, (MCSE, MCT)Techmedia, New Delhi
4.	Network Essentials Study Guide	2006	Becky Kirsininkas Tata McGraw Hills, N. Delhi
5.	Windows Server 2003 Network Infrastructure	2003	Will Schmied, Dave Bixler, Que Publishing
6.	Teach Yourself Microsoft Windows Server 2003 in 24 Hours		Joe habraken,Sams publishing

- (A) **COURSE TITLE AND CODE : WIRELESS AND MOBILE COMMUNICATION (IT-603N)**
- (B) **LEVEL : SIX**
- (C) **BRANCH/DISCIPLINE : INFORMATION TECHNOLOGY**
- (D) **RATIONALE :**

This course will enable students to understand the concepts of wireless and mobile networks and services.

Based on wireless and mobile network architectures, Personal Communication Services (PCS) offers the enterprise freedom of communication through mobility. This course gives an opportunity to the students to have an insight in the world of wireless and mobile networks, from the enabling technologies and protocols for creating and managing mobile services

(E) TEACHING AND EXAMINATION SCHEME

Course Code	Name of Course	Teaching Scheme				Examination Scheme				Total Marks	
		Pre-requisite	L	T	P	C	Theory		Practical		
							ET	PA	ET		PA
IT-603N	Wireless and Mobile Network	-	4	2	1	7	100	50	-	25	175

(F) DETAILED COURSE CONTENT

CHAPTER – 1.0 MOBILITY MANAGEMENT

- Cellular concept
- Frequency spectrum
- Frequency reuse
- Handoff Management: Detection and Assignment
- Handoff Management: Radio Link Transfer
- IS-41 Network Signaling
- Intersystem Handoff and Authentication in IS-41

CHAPTER – 2.0 NETWORK SIGNALING

- PACS Network Signaling
- Cellular Digital Packet Data
- GSM System Overview
- GSM Network Signaling
- GSM Mobility Management

- GSM Short Message Service
- International Roaming for GSM
- GSM Operations, Administration, and Maintenance

CHAPTER – 3 SERVICES AND PROTOCOL

- Mobile Number Portability
- VoIP Service for Mobile Networks
- Mobile Prepaid Phone Services
- General Packet Radio Service (GPRS)
- Wireless Application Protocol (WAP)
- Heterogeneous PCS.

CHAPTER – 4 THIRD-GENERATION MOBILE SERVICES

- Types of third-generation mobile services
- Paging Systems
- Wireless Local Loop
- Wireless Enterprise Networks

CHAPTER – 5 WIRELESS LAN

- IEEE 802.11 standards
- Ad-hoc and structured WLAN
- Mobile network layer (Mobile IP)
- Mobile transport layer
- OFDM
- Bluetooth technology
- Infrared Technology

(L) SPECIFICATION TABLE OF DISTRIBUTION OF MARKS & HOURS

Chapter No.	Name of Chapter	Hours	Marks			
			K	C	A	Total Marks
1.0	Mobility Management	20	11	8	5	20
1.0	Network Signaling	22	14	9	7	24
1.0	Services And Protocol	20	13	7	7	20
1.0	Third-Generation Mobile Services	16	10	7	5	18
1.0	Wireless LAN	18	8	4	6	18
	Total	96				100

(M) SUGGESTED IMPLEMENTATION STRATEGIES

Subject teacher is expected to follow the teaching scheme for theory and tutorials by covering the examples of problem solving (analysis and design exercises) to make

student understand the underlying technologies associated with wireless and mobile communication network.. Teachers are expected to conduct Practical that will help students to acquire hands-on experience in designing and implementing wireless networks.

(N) SUGGESTED LEARNING RESOURCES

8. Textbooks mentioned in the references
9. Newspaper clippings
10. Periodicals like, news magazines, journals etc.
11. Computer assisted learning CDs
12. Web based resources

(O) REFERENCE BOOKS

S.No.	Title	Edition, Year of Publication	Author/ Publisher & Address
1.	Wireless and Mobile Network Architectures	Latest	Yi- Bing Lin Imrich Chlamtac Prentice hall,
2.	Mobile Communications Engineering	Latest	W.C.Y. Lee , McGraw Hill
3.	Mobile Communication Design Fundamentals	Latest	W.C.Y. Lee , John Wiley and Sons, New York Publication
4.	Mobile & Wireless Networks	Latest	Ulysses Black, Prentice-Hall,
5.	Data Over Wireless Networks		Held, Gilbert
6.	Wireless Communications And Networking		Jon w. Mark and weihua zhuang, Prentice hall of India
7.	802.11 Wireless Local-Area Network Fundamentals	2003	Pejman Roahan, Jonathan Leary, Cisco Press
8.	Bluetooth Technology And Its Applications With Java And J2me		Prabhureddi, Prentice hall of India
9.	Wireless Communications: Principles And Practice, 2nd Ed		Theodore s. Rappaport, Prentice hall of India

A. NAME OF THE COURSE: INDUSTRIAL TRAINING (CPE-608)

B. LEVEL: SIX (SIX WEEKS DURATION)

C. TEACHING AND EXAMINATION SCHEME

D. NAME OF THE COURSE: INDUSTRIAL TRAINING (CPE-608)

Course Code	Name of Course	Teaching Scheme				Examination Scheme				Total Marks	
						Theory		Practical			
		Pre-requisite	L	T	P	C	ET	PA	ET		PA
IT 608	Project	Last Semester	-	-	-	10	-	-	-	-	200

E. RATIONALE: The purpose of industrial training is to offer wide range of practical exposures to the latest practices, computer systems and other hardware equipments, used in the industry/field. Industrial Training also help students in acquiring hands-on-experience of various practices and events adopted in the real life situations. In nutshell through the industrial training the student integrates all what he/she has learned and then puts into practice.

One industrial training has been suggested during the programme, which can be organized by the institute taking into consideration of placement available. It is suggested that industrial training should be offered only after the student earns the requisite credits.

TERM WORK: Term work shall consist of work done by the student or a group of students during the industrial training. Proper recording of events and work done shall be in a developed forms/formats. The students must show evidence of development competencies related to his Competency profile such as:

- Installation, Configuration, Testing, trouble shoot and repair of computing equipment.
- Implementation of Networks
- Assembly/ Disassembly of computer subsystems
- Software system design and development

The student shall defend on the report submitted, in the oral/viva examination after completing of the training.

F. INSTRUCTION SHEET: The students should be placed in the organization/industry where Computers are used for different applications. Students should be given various sheets/forms/formats to collect information from the industry, prior to they are deputed for the industrial training. These sheets/ forms etc. shall be filled during and furnished after the industrial training. Competent faculty / staff member shall follow-up the students regularly.