PGDCA scheme

PGDCA I Sem

Paper Code	Paper Name	Theory		Sessional		Practical		Total
		Max	Min	Max	Min	Max	Min	
PGDCA101	Computer Fundamentals	100	40	50	30	-		150
PGDCA102	Application Software Packages	100	40	50	30	-		150
PGDCA103	Programming in 'C'	100	40	50	30			150
PGDCA104	Computer organization & architecture	100	40	50	30	-		150
PGDCA105	Software Engineering	100	40	50	30			150
PGDCA106	Programming lab on102,103,104	-				50	25	50
	Total	500		250		50		800

PGDCA II Sem

Paper Code	Paper Name	Theory		Sessional		Practical		Total
		Max	Min	Max	Min	Max	Min	
PGDCA201	Python programming	100	40	50	30	-		150
PGDCA202	Object Oriented Programming	100	40	50	30	-		150
PGDCA203	DBMS	100	40	50	30			150
PGDCA204	Introduction to Internet Technologies.	100	40	50	30	-		150
PGDCA205	Introduction to Linux	100	40	50	30			150
PGDCA206	Minor Project based on 201 & 203					100	50	100
PGDCA207	Programming Lab on 202 & 205	-				50	25	50
	Total	500		250		150		900

Note -: In PGDCA 206 a group of 2 or 3 students will be allowed to carry out the project jointly.

PROGRAMME SPECIFIC OUTCOME (PSO)

The aim of PGDCA programme is to develop dynamic computer professionals in short time. The programme covers all aspects and basics in Computer Application. It also has projects for developing full software in various software languages along with real time environment. The programme prepares the student for designing small business application softwares as per the need of industry and real world.

PGDCA 101 : Computer Fundamentals

COURSE OUTCOME: On the completion of this course, student will be able to understand the fundamental concepts of computer and familiar about peripheral devices, programming languages, system software, computer applications and basics of networking.

UNIT 1 - Computer system concepts, Computer system characteristics, Capabilities and limitations, Types of computers-Analog, Digital, Hybrid, General, Special Purpose, Micro, Mini, Mainframe, Super, Basic components of a computer system - Control unit, ALU, Input/Output functions and characteristics, memory - RAM, ROM, EPROM, PROM and other types of memory.Data representation and codes, Decimal, Binary ,Octal and Hexadecimal System and inter conversion ,BCD numbers and ASCII codes.

UNIT 2-Computer hardware, Input devices- Keyboard, Mouse, Trackball, Joystick, Digitizing tablet, Scanners, Digital Camera, MICR, OCR, OMR, Bar-code Reader, Voice Recognition, Light pen, Touch Screen, Output devices- Monitors - characteristics and types of monitor -Digital, Analog, Size, Resolution, Refresh Rate, Interlaced / Non Interlaced, Dot Pitch, Video Standard - VGA, SVGA,XGA etc, Printers - Daisy wheel, Dot Matrix, Inkjet, Laser, Line Printer, Plotter, Sound Card and Speakers , , Memory devices, RAM, ROM, Winchester drive, Mass storage devices, CD-ROM, Flash memory and their characteristics and uses.

UNIT 3-System software - Assemblers, Translators, Interpreters, Compilers, Operating Systems - Functions, Types- Batch, Single, Multiprogramming , Languages : High level languages, Procedural and Object Oriented languages. Application Software – Word Processing, Spreadsheet, Presentation Graphics, Data Base Management Software.

UNIT 4-Computer applications, Office automation, Industrial applications, CAD/CAM, Library information system, Digital image processing, Multimedia applications, Space research,

UNIT 5-Computer networking: Goals and applications, LAN, MAN, WAN Computer communication, Communication modes : simplex, half duplex, full duplex.
Types of Network - LAN, WAN, MAN etc., Topologies of LAN - Ring, Bus, Star, Mesh and Tree topologies, Components of LAN -Media, Bridges, HUB, Routers, Repeater and Gateways, communication Channels - Twisted, Coaxial, Fiber Optic, Serial and Parallel Communication, Modem - Working and characteristics, Types of Connections - Dialup, Leased Lines, ISDN, Use of Communication in daily life.

Reference:
1. Introduction to Computers   C. Xavier 2nd Edition, New Age International
2. Fundamentals of Computers   V. Rajaraman 2nd EditionPrentice Hall of India
3. IT Today   S Jaiswal Galgotia Publication
4. Computers Today   S.K.Basandra, Galgotia Publications.
5. Fundamentals of Information technology Alexis Leon & Mathews Leon,
                                      Vikas Publishing House, New Delhi.

PGDCA102: Application Software Packages

COURSE OUTCOME: This course will enable the student to gain an understanding of the core concepts of computer applications. And will also make them proficient in the use of computer applications such as ms word, access, excel and power point presentation slides relevant to their upcoming project and their reports.

UNIT – 1
MS Windows: Introduction to M.S. Windows; Features of Windows; Various versions of Windows & its use; Working with Windows; My Computer & Recycle bin ; Desktop, Icons and Windows Explorer; Screen description & working styles of Windows; Dialog Boxes & Toolbars; Working with Files & Folders; Shortcuts & Auto starts; Accessories and Windows Settings using Control Panel; Start button & Program lists; Installing new Hardware & Software.

UNIT – II
Basics Of word:
Creating word documents; The word window , Entering Text . Editing Document text; Selecting Text, Copying and Moving Text. Applying Text Enhancements; Applying Fonts and Font Styles in Word, Highlighting Text For Distinctive Look . Aligning and Formating ; Aligning Text, Using Identation Options, Setting Line Spacing Options, Using Tabs. Creating Lists, Numbers and Symbols ; Numbering and Bullets, Creating Special Characters. Replacing and checking Text ; Creating and Applying Frequently Used Text, Finding and Replacing Text , More about Spelling and Grammar, Using the Thesaurus Command. Getting Into Print ; Using Print Preview, Changing Page Orientation and Paper Size, Aligning Text Vertically, Settting Margins, Printing Options.

Advanced Formatting Techniques in Word :
Formatting Pages; Formatting Sections, Creating and Modifying Page Numbers, Creating Headers and Footers , Taking Care of Loose Ends .Working With Columns ; Working With Newspaper Columns, Revising Column Structure. Constructing High-Quality Tables ; Creating and Revising Tables , Modifying Table Structure , Formatting Tables , Using Tables Calculatingly. Working Smarter with Word ; Using Templates. Creating Outlines in Word ; Creating an Outline , Modifying an Outline

UNIT- III
Access Concepts & terms : database tables ,relational databases , records , fields , controls & objects , queries & dynasets, forms, reports ,properties , wizards , macros , Access requirements , starting & quitting access , the access workspace & tool, views .
Creating database & tables with & without wizard , field name , data types & properties , adding & deleting fields in fields , renaming fields & their caption , resizing fields , freezing columns , primary key field & indexing fields. Form: Form wizard , saving & modifying forms : Entering & Editing data , Finding , sorting & displaying data , queries & dynasets , creating & using select queries , using wild cards in queries , reformatting dynasets.
Reports : Creating reports, previewing reports, printing reports, modifying, saving. Relational databases – definition, purpose, creation, viewing, deleting. Expressions , Macros.

UNIT - IV
Creating Excel Worksheets :

Entering and Editing Cell Entries ; The excel Application Window , Workbooks and Worksheets, Moving the Cell Pointer, Entering Text and Numbers , Revising Text and Numbers. Working with Numbers ; Creating Formulas, Formatting numbers. Changing Worksheet Layout ; Adjusting Column Width and Row Height, Inserting and Deleting Rows and Columns, Inserting and Deleting Cells , Moving and Copying Cell Contents , Naming a Worksheets , Selecting Worksheets , Copying and Moving Worksheets, Inserting and Deleting Worksheets, Other Formatting Options ; Aligning Text , Border and Color. Printing in Excel ; Print Preview, Changing Page Setup , Checking Worksheet Spelling.

Advanced Techniques in Excel :

Using Functions and References ; Using Functions , Entering Functions, Relative and Absolute Cell References. Naming Ranges ; Naming Ranges , Using Names . Creating Easy-to-Understand Charts ; Pie Charts , Series Charts , Creating Charts , Moving , Sizing , and Printing Chart Objects . Editing and Formatting Charts ; Adding a Data Series , Deleting a Data Series , Modifying and Formatting Charts.

UNIT – V
Creating PowerPoint Presentations:

Creating a Basic Presentation , Building Presentations, Modifying Visual Elements , Formatting and Checking Text , Adding Objects, Applying Transitions , Animation Effects and Linking , Preparing handouts , Taking the Show on the Road.

Reference :

1. Microsoft Office 97 : Will Train , Gini Courter, Annette Marquis
                           bpb Publication.

PGDCA 103 : Programming in 'C'

COURSE OUTCOME: Upon successful completion of this course student will get skills about basic primitives of C language through decision control statements, loop statements, arrays, modular programming and pointers after that student will write efficient programs in C language. The main focus is on problem solving techniques, algorithm, and flow chart and writing efficient programs.

UNIT 1-Programming Fundamentals : Program Concept, Algorithms, Flow Charts - Symbols, Rules for making Flow chart, Types of flowchart, Advantage & Disadvantage, , techniques of problem solving : Programming Techniques – Top down, Bottom up, Modular, Structured - Features, Merits & Demerits, Programming Logic- Simple, Branching, Looping, Recursion, Cohesion & Coupling, Programming. Testing & Debugging & their Tools .

UNIT 2-Programming in C including features of 'C', Ctokens, Variables, Expressions, Identifiers, Keywords, Data Types, Constants, Operator and expression Operator: Arithmetic, Logical, Relational, Conditional and Bit wise Operators, Precedence and Associativity of Operators, Type conversion in expression, Basic input/output and library functions Single character input/output i.e. getch(), getchar(). getche(), putchar(),Formatted input output i.e. printf() and scanf(). Branching Constructs: if-else,switch, conditional operator & goto statements If statement, If.....Else statement, Nesting of If....Else Statement, else if ladder, The ?: operator, goto statement, Switch statement, Compound statement, Loop controls, for, while, do-while loops, break, continue, goto statement.

UNIT 3- Functions: categories of functions User defined and library function , recursion, Function arguments, Return values and nesting of function, Recursion, Calling of functions, Scope and life of variables - local and global variable, Storage class specified - auto, extern, static, register.Arrays : what is array, declaring initializing , 2D and 3D array. String: declaration, string functions – strcat,strcpy,strcmp,strlen,strstr.

UNIT 4-Pointers: operations on pointers,Basic of pointers and operators, Pointers and function, Array of pointers, Pointer and strings, Pointer to structure, Pointers within structure ;The preprocessor, #define, defining functions like macros, #error,#include, conditional compilation directives i.e. #if, #else, #elif and#ifdef & undef Structures : the concept of structure of structure, intilizing a structure, the structure tag, period operator , array of structure, structure and pointer, te arrow operator and nesting of structure. Unions : initialization and use of it in a program.

UNIT 5-File Management: Introduction – File handling, File structure, File handling function, File types, Streams, Text, Binary, File system basics, The file pointer,Opening a file, Closing a file, Writing a character, Reading a character, Using fopen(), getc(), putc(), and fclose(), Using feof(), Working with string fputs() and fgets(), Standard streams in C,Flushing astream, Using fread() and fwrite(), Direct access file, fseek() and random access I/O, fprintf() and fscanf(), Command line arguments

Reference:
1.Let us C   Yashwant Kanitkar, BPB Publicatiuon
2.Programming in ANSI C   Balgurusuamy Tata McGraw Hill
3.C Programming   Schaum's series
4. The sprit of C   Mulish Cooper, Jaico Publishing
5. Programming with ANSI & Turbo C   Kamthane, Pearson Education.

PGDCA 104 : Computer Organization and Architecture

COURSE OUTCOME: On completion of the course, students will be able to understand fundamental of computer, examine the operation of the major building blocks of a computer system and it also familiar to number system, Boolean algebra, flip-flops and memory hierarchy.

UNIT 1-Component of computer system, number system, binary, octal, hexadecimal conversion, 1's compliment and 2's compliment, binary arithmetic - addition, subtraction character codes (ASCII, EBCDIC). Error detection and correction codes,

UNIT 2-Boolean Algebra - Representation of values and complement, AND, OR, NOT operators, d'morgan's theorem, simplifying expressions, truth table, logic gate : AND, OR, NOT, NAND, NOR, XOR, XNOR and karnaugh map method, combination logic design.

UNIT 3-Flip flops-clocked RS, D, JK flip flops. Counters - Ripple, Synchronous, Ring Counters. Registers - Buffer, Controlled Buffer Register. Addressing Techniques - Direct, Immediate, Indirect Addressing.

UNIT 4-Control Unit - Its purpose, instruction word, instruction cycle.I/O devices - Printers: Dot matrix, Electro magnetic, Thermal, Laser, CRT's, Keyboards.

UNIT 5-Memory- Main, Ram, Static & Dynamic, ROM, EPROM, cache memory, Auxiliary storage : floppy disk, introduction to microprocessor, interfacing buses, bus formats address, data and control.

Reference:

1. Digital computer fundamental-Thomas C Bartee
2. Computer system architecture-M.M Mano
3. Computer fundamentals (architecture & organization) B.Ram.

PGDCA 105 : Software Engineering

COURSE OUTCOME: On successful completion of this course student will get the skills to apply the software engineering tasks by demonstrating in communication, planning, analysis, design, construction and deployment phases of life cycle and also be able to demonstrate to apply current theories, models, and techniques that provide a basis for the software lifecycle.

UNIT – I

Introduction: Software Crisis, software engineering, Software Processes & Characteristics, Need of Software life cycle models, Waterfall, Prototype, and Spiral Models. Software Requirements analysis & specifications: Requirement elicitation techniques: Interview, form analysis, need for SRS, Characteristics of SRS.

UNIT – II.

Software Project Planning: Issues involved in software estimation, Size Estimation like lines of Code & Function point method, Cost Estimation Models - COCOMO, Software project management technique – Gantt Chart.

UNIT-III

Basic Concept of Software Design, Design process, design fundamentals, software design levels: Architectural Design, high level design, detail Design, Design notations & specification Modularization, Design Structure Charts, Pseudo Codes, Flow Charts, Design Strategies: Function Oriented Design, , Object Oriented Design.

UNIT – IV

Overview of UML: class diagram object diagram, use case diagram, sequence diagram, activity diagram, component diagram, collaboration diagram.

UNIT – V

Software testing, Test cases, Software Maintenance: Types of software Maintenance, software maintenance model: Quick fix Model, taute's maintenance model, Concept of Software Re-engineering & Software Reverse engineering- Definition, purposes and objectives, benefits.

Reference:
1.Software Engineering – A practitioner's approach"- R. S. Pressman, 5th Ed., McGraw Hill Int.
2. Software Engineering (Principle & Practices –Waman S. Jawadekar , Tata McGraw Hill
3. An Integrated approach to software Engineering,- Pankaj Jalote , Narosa Publication
4. Software Engineering- Shari Lawrence, Pfleeger, Pearson edu.
5. Unified software development Process- Ivar Jacobson, Grady Booch, Pearson edu.

PGDCA 201 : Python Programming

COURSE OUTCOME: At the end of this course, students will be able to acquire the basic skills to work on principles of Python programming language, understand object oriented concepts and create database connection.

UNIT – 1:
Introduction to Python, History, Features, Setting up path, Working with python, Basic Syntax, Variable and data type, operators, input and output operations.

UNIT – 2:
Conditional Statements – if, if-else, nested if-else, elif. Looping statements: while, for nested loops. Control statements: break, continue, pass. String operations .List, Tuple, Dictionaries: Lists- introduction, accessing, operations, working with lists, built-in functions.

UNIT – 3:
Functions- defining a function, calling a function, types of function, function arguments, anonymous function, global and local variables. Exception Handling- Introduction, types of error and exceptions, user defined exceptions.

UNIT – 4:
OOPs Concepts: introduction, class, object, attributes, inheritance, overloading, overriding, data hiding, polymorphism and etc.

UNIT – 5:
Tkinter: Introduction, Tkinter controls, import package, Frame, Button, Label, Entry, Radio, Checkbox, Grid, pack, Menu. Database- Introduction, connections with python, executing queries using tkinter.

Reference:

1. Python: the complete reference by Matic C.Brown
2. Python for beginners by Harish Bhasin
3. Python Programming by Michael Urban and Joel Murach

PGDCA 202: Object Oriented Programming

COURSE OUTCOME: After successful completion of this course, students will get the skills to use features of object oriented programming such as class, object, inheritance, encapsulation, polymorphism and stream classes which will help to design software to solve real life problems.

UNIT-I

Overview of C++ : Object oriented programming, Introducing C++ classes, Concepts of object oriented programming. Classes & Objects : Classes, Structure & classes, Union & Classes, Friend function, Friend classes, Inline function, Scope resolution operator, Static class members: Static data member, Static member function, Passing objects to function, Returning objects, Object assignment.

UNIT-II

Array, Pointers references & The Dynamic Allocation operators : Array of objects, Pointers to object, Type checking C++ pointers, The This pointer, Pointer to derived types, Pointer to class members, References: Reference parameter, Passing references to objects, Returning reference, Independent reference, C++ 's dynamic allocation operators, Initializing allocated memory, Allocating Array, Allocating objects. Constructor & Destructor : Introduction, Constructor, Parameterized constructor, Multiple constructor in a class, Constructor with default argument, Copy constructor, Default Argument, Constructing two dimensional Array, Destructor.

UNIT-III

Function & operator overloading : Function overloading, Overloading constructor function finding the address of an overloaded function, Operator Overloading: Creating a member operator function, Creating Prefix & Postfix forms of the increment & decrement operation, Overloading the shorthand operation (i.e. +=,-= etc), Operator overloading restrictions, Operator overloading using friend function, Overloading New & Delete.

UNIT-IV

Inheritance : Base class Access control, Inheritance & protected members, Protected base class inheritance, Inheriting multiple base classes, Constructors, destructors & Inheritance, When constructor & destructor function are executed, Passing parameters to base class constructors, Granting access, Virtual base classes . Virtual functions & Polymorphism : Virtual function, Pure Virtual functions, Early Vs. late binding

UNIT-V

The C++ I/O system basics : C++ streams, The basic stream classes: C++ predefined streams, Formatted I/O: Formatting using the ios members, Setting the format flags, Clearing format flags, An overloaded form of setf ( ), Examining the formatted flags, Setting all flags, Using width() precision() and fill(), Using manipulators to format I/O, Creating your own manipulators.

reference books :
C++ The complete reference - *Herbert Schildt,- TMH Publication*
Object Oriented Programming C++ - *R. Lafore*
Object Oriented Programming with C++ - *R. Subburaj, Vikas Publishing House, New Delhi.*
C++- *E. Balguruswamy, , TMH Publication*

PGDCA 203 : DBMS

COURSE OUTCOME: After study this course, students will get the skills to understand the fundamentals of database management systems, various models and SQL queries. They will be able to develop databases with all the constraints which will help in storing and retrieving data easily.

UNIT 1-Introduction: database system, advantages of database systems-redundancy, consistency, sharing, standards, integrity, security, conflicting requirements and data independence, concept of distributed database, DBMS, component. Architecture of database systems: schema, sub-schema; logical and conceptual view. data description language (DDL), DML and database administrator.

UNIT 2-Data models: relational model-structure, tuple, attributes, relation normalization, key-primary key, candidate key, alternate key. relational calculus & relational algebra-concepts, definition of union, set difference, Cartesian product -selection, intersection, quotient and join. Normal forms : -first, second, third normal forms.

UNIT 3-Hierarchical and network model-concept, structure, advantages and disadvantages. protection and security : - types of crashes, security on databases.

UNIT 4-.

Relational Algebra & SQL: The structure, relational algebra with extended operations, modifications of Database, idea of relational calculus, basic structure of SQL, set operations, aggregate functions, null values, nested sub queries, derived relations, views, modification of Database, join relations, DDL in SQL.

UNIT 5

Database Integrity: general idea. Integrity rules, domain rules, attribute rules, relation rules, Database rules, assertions, triggers, integrity and SQL

Reference:

1) Introduction to database systems- C. J date.
2) Principles of database system Jeffery D Ullman.
3) A Silberschatz, H.F Korth, Sudersan "Database System Concepts" –, MGH Publication.

PGDCA 204: Introduction to Internet Technologies

COURSE OUTCOME: At the end of this course, students will get the skills to understand basic knowledge of IT and basics of internet. Students will also able to build web page using HTML.

UNIT- 1

Introduction of Internet : What is Internet , Services Of Internet , H/W & S/W Requirements to Connect to the Internet .E-mail, Introduction of WWW, Web Server and Web Client , Difference between the web and the Internet , Internet Service Provider (ISP). Web publishing Concepts, Domain name Registration, Space on Host Server for Web site,

UNIT- 2

Choosing an Internet Service Provider :Location , Stability , Customer Service, Performance , Pricing , Establishing an Internet Account. E-mail Basics: Running an E-mail Program, Sending mail, Reading mail, Replying to mail, Deleting mail. Newsgroups, mailing Lists, Chatting.

UNIT –3

Data Transmission Protocols, Client/Server Architecture & its Characteristics, FTP & its usages. Telnet Concept, Remote Logging, Protocols, Terminal Emulation. Massage Board, Internet chatting -Voice chat, text chat.

UNIT –4

An Introduction to Internet Explorer : Starting Internet Explorer , A Quick Tour with Internet Explorer , At the Helm in internet Explorer, Viewing Various file Types .

Internet Search Engines: What is Search Engines , How do Search Engines work ?, Types of Search Engines.

UNIT -5

Creating a Web Page : What is HTML , What can You Do with HTML , Creating , Saving and Viewing HTML documents , Applying Structure Tags , Applying Common Tags and attributes Images, Hyperlinks, Backgrounds and Colour controls, Different HTML tags, Table layout and presentation, Use of font size & Attributes, List types and its tags. Use of Frames and Forms in web pages.Creating a New Web, Opening an Existing Web, Creating , Opening and Saving Web Pages , Entering and Editing Text. Printing Page , Spell Checking, Finding or Replacing Text.

Reference:
Alexis leon and Mathews Leon   - Internet for every one (Tech World)
Douglas Comer - The Internet Book (prentice Hall)
SYBEX- bpb publication – Internet Complete (Second Edition).
V.K.Jain - O level Module - M 1.2 - Internet & web page designing , BPB Publications
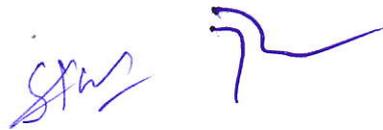
PGDCA 205 - Introduction to Linux

COURSE OUTCOME: Study this course, students will get the skill to work on Linux operating system and their environment, Linux commands and File system. Students will also be able to able to do shell programming and shell scripting.

UNIT – I

Linux introduction and file system - Basic Features, Advantages, Installing requirement, Basic Architecture of Unix/Linux system, Kernel, Shell. Linux File system-Boot block, super block, Inode table, data blocks,How Linux access files, storage files, Linux standard directories. Commands for files and directories cd, ls, cp, md, rm, mkdir, rmdir, pwd, file, more, less, creating and viewing files using cat, file comparisons – cmp & comm, View files, disk related commands, checking disk free spaces. Partitioning the Hard drive for Linux, Installing the Linux system, System startup and shut-down process, init and run levels.

UNIT–II

Essential linux commands Understanding shells, Processes in linuxprocess fundamentals, connecting processes with pipes, tee, Redirecting input output, manual help, Background processing, managing multiple processes, changing process priority with nice, scheduling of processes at command, cron, batch commands, kill, ps, who, sleep, Printing commands, find, sort, touch, file, file related commands-ws, sat, cut, dd, etc. Mathematical commands- bc, expr, factor, units. Creating and editing files with vi, joe & vim editor

UNIT–III

System administration Common administrative tasks, identifying administrative files – configuratinn and log files, Role of system administrator, Managing user accounts-adding & deleting users, changing permissions and ownerships, Creating and managing groups, modifying group attributes, Temporary disable user's accounts, creating and mounting file system, checking and monitoring system performance file security & Permissions, becoming super user using su. Getting system information with uname, host name, disk partitions & sizes, users, kernel. Backup and restore files, reconfiguration hardware with kudzu, installaing and removing packages with rpm command. Configure X-windows desktop-redhat-config-Xfree86, understanding XF86config file, starting & using X desktop. KDE & Gnome graphical interfaces, changing X settings.

UNIT–IV

Shell programming- Basic of shell programming, Various types of shell available in Linux, comparisons between various shells, shell programming in bash, read command, conditional and looping statements, case statements, parameter passing and arguments, Shell variables, system shell variables, shell keywords, Creating Shell programs for automate system tasks.

UNIT-V

Simple filter commands – pr, head, tail, cut, paste, sort, uniq, tr. Flter using regular expressions – grep, egrep, and sed. awk programming – report printing with awk.

References books :

UNIX– Concepts&Applications (Third Ed.)– Sumitabha Das, Tata McGraw Hill Publications.
Unix for programmers and users (Third Ed.) –Graham Glass& KingAbles, Pearson Education India. (Low Prices Edition).
Red Hat Linux 9 Bible – Cristopher Negus, IDG Books India Ltd.
LINUX Complete – BPB Publication

PGDCA 206 : Minor Project

COURSE OUT COME: Completion of this course of minor project, students will get the exposure and skills to develop project on real life problem.

The project is to be done by the student reflecting the knowledge gained during the course of work. Presentation of the project will be in the accepted norms and should be of real life value.

Project report will be submitted by the students latest on the date announced by the department and then evaluated by the examiner.