

RASHTRASANT TUKADOJI MAHARAJ NAGPUR UNIVERSITY

DIRECTION NO. 23 OF 2012

**FACULTY OF COMMERCE
COMPUTER APPLICATION BOS**

**DIRECTION GOVERNING THE EXAMINATION LEADING TO THE DEGREE OF
POST GRADUATE DIPLOMA IN COMPUTER COMMERCIAL APPLICATIONS (PGDCCA)**

1. There shall be TWO examinations leading to the degree of Post Graduate Diploma in Computer Commercial Applications (PGDCCA) namely :
 - (1) the Post Graduate Diploma in Computer Commercial Applications (PGDCCA) Semester-I Examination,
 - (2) the Post Graduate Diploma in Computer Commercial Applications (PGDCCA) Semester-II Examination,
2. The duration of the Degree Course under this shall be of one academic year. The PGDCCA Semester-I Examination at the end of the first Semester and PGDCCA Semester-II Examination at the end of the Second Semester.
3. The Examinations Specified in paragraph 2 above shall be held twice a year (Winter+Summer) at such places and on such dates as may be fixed by the University.
4. The details of the procedure for admission as well as eligibility for examination of :
 - (A) An applicant of the **PGDCCA Semester – I** Examination shall have :
 - (i) Obtained a Bachelor degree of this University or an equivalent Bachelor Degree of any statutory University in any faculty
 - (ii) Prosecuted a regular course of study for not less than one Semester in any recognized institution or college affiliated to the Nagpur University where the course will be conducted.
 - (B) An applicant of the **PGDCCA Semester II** Examination shall have :

Appeared PGDCCA Semester– I Examination of this University

Admission to Semester	Candidate should have passed in following examinations	Candidate should have completed the term and filled examination form	Candidate should have passed at least 50% courses of following examinations
I Semester	Degree examination	-	-
II Semester	-	Semester – I	-

5. Without prejudice to the other provisions of Ordinance No. 6 relating to the Examinations in General, the provisions of Paragraphs 5, 7, 8, 10, 26 and 31 of the said Ordinance shall apply to every collegiate candidate.
6. The fees for the examination shall be as prescribed by the Management Council from time to time and whenever any change is made in the fees prescribed for any particular examination that shall be notified through a notification for information of the examinees concerned.

7.

Semester-I

Course Code	Subjects	Paper	Teaching Scheme per weeks (hr)	End Sem Examination	Min Marks	Internal Assessment	Min Marks	Credits
Theory								
1.	Information Technology	I	4	80	40	20	10	4
2.	Programming Skills	II	4	80	40	20	10	4
3.	Operating Systems Concepts & Software Package	III	4	80	40	20	10	4
4.	Computerized Accounting (Tally)	IV	4	80	40	20	10	4
Practical								
1.	Practical-I : Programming Skills	P-I	8	100	50	Nil	Nil	4
2.	Practical-II : Operating System & MS-Office	P-II	8	100	50	Nil	Nil	4
Total			32	520		80		24

Semester-II

Course Code	Subjects	Paper	Teaching Scheme per weeks (hr)	End Sem Examination	Min Marks	Internal Assessment	Min Marks	Credits
Theory								
1.	Management Information Systems	I	4	80	40	20	10	4
2.	Visual Basic	II	4	80	40	20	10	4
3.	Principles and Practice of Management	III	4	80	40	20	10	4
4.	E-Commerce and Web Development	IV	4	80	40	20	10	4
Practical								
1.	Practical-I : Visual Basic	P-I	8	100	50	Nil	Nil	4
2.	Practical-II : Web Development	P-II	8	100	50	Nil	Nil	4
Project								
	Project	Proj	8	100	50			4
Total			40	620		80		28

8. In order to pass the examination , an examinee shall obtain not less than 50 % marks in each of the theory papers and each of the practical and the project and Internal Assessment (Sessional) separately.

9. (A) The scope of the subjects and pattern of examination shall be as indicated in syllabi.
(B) The Medium of instructions and examinations shall be in ENGLISH only.
10. Applicant for PGDCCA Examination prosecuting regular course of study shall not be permitted to join any other course in this or any other University.

11.

ASSESSMENT

- The final total assessment of the candidates is made in terms of an Internal assessment (Sessional) and an external assessment for each course.
- For each paper, 20 marks will be based on internal assessment and 80 marks for semester end examination (external assessment), unless otherwise stated.
- The division of the 20 marks allotted to internal assessment of theory papers is on the basis of written test, seminars, presentations and attendance as determined by the teacher in respective subject and moderated by Head of the Institute/Principal.
- An unsuccessful examinee at any internal shall be eligible for reexamination on payment of fresh examination fee prescribed by the University as per the respective directions.
- The internal marks will be communicated to the University at the end of each semester, but before the semester end examinations. These marks will be considered for the declaration of the results.
- The record of internal marks, evaluation & result should be maintained for a period of one year by respective institute/college for verification by competent authority.
- The Maximum and Minimum marks which each subject carries in PGDCCA Semester-I and Semester-II Examination are as indicated in Appendices "A" and "B". respectively.
- A copy of Project work shall be submitted to college prior to commencement of Semester-II Examination for Evaluation by Internal and External Examiner appointed as per University rules.
- Candidate shall submit his/her declaration that the Project is a result of his/her own work and the same has not been preciously submitted to any examination of this University or any other University.

- The Practical Examination of each Semester will be conducted by Internal and External Examiner appointed as per University rules.
- The old course students shall be absorbed as per the absorption scheme attached.
- If an examinee failed to pass the PGDCCA Degree within Three Successive Years from the date of his/her First Admission to particular programme he/she shall be declared as “**Not Fit for the Course**” (NFC) and he/she will not be allowed to appear further for any examination of the course.

STANDARD OF PASSING

- Every candidate must secure 50% marks in each head of passing.
- The passing marks for external examination will thus be 40 out of 80 and for internal examination 10 out of 20 and aggregate marks taking both together will be 50 marks.
- There shall be no internal marks in Practical and Project Examination.

11. (a) There shall be no classification of examinees successful at the PGDCCA Semester-I Examination whereas SGPA will be notified.

*** Conversion of Marks to Grades and Calculations of SGPA (Grade Point Average) and CGPA (Cumulative Grade Point Average):** In the Credit and Grade Point System, the assessment of individual Courses in the concerned examinations will be on the basis of marks only, but the marks shall later be converted into Grades by some mechanism wherein the overall performance of the Learners can be reflected after considering the Credit Points for any given course. However, the overall evaluation shall be designated in terms of Grade. There are some abbreviations used here that need understanding of each and every parameter involved in grade computation and the evaluation mechanism. The abbreviations and formulae used are as follows:-

Abbreviations and Formulae Used

G: Grade

GP: Grade Points

C: Credits

CP: Credit Points

CG: Credits X Grades (Product of credits & Grades)

$SGPA = \frac{\sum CG}{\sum C}$: Sum of Product of Credits & Grades points / $\sum C$: Sum of Credits points

SGPA: Semester Grade Point Average shall be calculated for individual semesters. (It is also designated as GPA)

CGPA: Cumulative Grade Point Average shall be calculated for the entire Programme by considering all the semesters taken together.

After calculating the SGPA for an individual semester and the CGPA for entire programme, the value can be matched with the grade in the Grade Point table as per the Seven (07) Points Grading System and expressed as a single designated GRADE such as O, A, B, etc....

Marks	Grade	Grade Points
85 and above	O	10
75 -84	A	9
65-74	B	8
60-64	C	7
55-59	D	6
50-54	E	5
00-49	F (Fail)	0

(b) Division at the PGDCCA Semester-II Examination shall be declared on the basis of the aggregate marks at the PGDCCA Semester-I, PGDCCA Semester-II Examination taken together and the CGPA will be calculated and notified.

(c) Successful examinees at the PGDCCA Semester-II Examination shall be awarded division based on CGPA as follows :

CGPA Range	Final Grade	Equivalent Class/ Division
5.0 to 5.49	E	Pass Class
5.5 to 5.99	D	Second Division
6.0 to 6.99	C	First Division
7.0 to 7.99	B	First Division with Distinction
8.0 to 8.99	A	First Division (Excellent)
9.0 to 10	O	First Division (Outstanding)

12. Successful examinees in the PGDCCA Semester Examination shall be awarded Distinction in each subject in which examinees obtain 75% or more marks in that subject at the respective Examination.
13. Unsuccessful examinees at the above examinations can be readmitted to the same examination on payment of a fresh fee and such other fees as may be prescribed.
14. Provisions of Direction 44 of 2001 relating to the award of Grace marks for passing an examination, securing higher division / class and for securing distinction in subject(s) and of Ordinance 10 relating to grant of Exemptions and Compartment vide Ordinance No. 45 of 1983 as amended up-to-date shall apply to the Examinations under this Direction.
15. Notwithstanding anything to the contrary in this Direction, no person shall be admitted to an examination under this Ordinance, if he/ she has already passed the same examination or an equivalent examination of any other University.
16. Examinees successful at PGDCCA Semester-I and Semester-II Examination shall on payment of the prescribed fees receive a Diploma in the prescribed form signed by the Vice-Chancellor.

17. This Scheme shall come into force from the academic session 2012-13
18. The Provisions of Ordinance No. 21 of 1994 governing the existing course for Post Graduate Diploma in Computer Commercial Application (PGDCCA) stand repealed phasically on implementation of this Scheme.

APPENDIX - A
PGDCCA
Semester-I

Course Code	Subjects	Paper	End Sem Examination	Min Marks	Internal Assessment	Min Marks
Theory						
1.	Information Technology	I	80	40	20	10
2.	Programming Skills	II	80	40	20	10
3.	Operating Systems Concepts & Software Package	III	80	40	20	10
4.	Computerized Accounting (Tally)	IV	80	40	20	10
Practical						
1.	Practical-I : Programming Skills	P-I	100	50	Nil	Nil
2.	Practical-II : Operating System & MS-Office	P-II	100	50	Nil	Nil
Total			520		80	

Semester-II

Course Code	Subjects	Paper	End Sem Examination	Min Marks	Internal Assessment	Min Marks
Theory						
1.	Management Information Systems	I	80	40	20	10
2.	Visual Basic	II	80	40	20	10
3.	Principles and Practice of Management	III	80	40	20	10
4.	E-Commerce and Web Development	IV	80	40	20	10
Practical						
1.	Practical-I : Visual Basic	P-I	100	50	Nil	Nil
2.	Practical-II : Web Development	P-II	100	50	Nil	Nil
Project						
	Project	Proj	100	50		
Total			620		80	

APPENDIX – B

**POST GRADUATE DIPLOMA IN COMPUTER COMMERCIAL
APPLICATIONS (PGDCCA)**

QUESTION PAPER PATTERN

Total Marks : 80

- N.B.) a) All Questions are compulsory.
b) All Questions carry equal marks. (Twenty each)

**Q. 1 : Unit – I
 OR
 Unit-I**

**Q. 2 : Unit – II
 OR
 Unit – II**

**Q. 3 : Unit – III
 OR
 Unit – III**

**Q. 4 : Unit – IV
 OR
 Unit – IV**

APPENDIX – C

POST GRADUATE DIPLOMA IN COMPUTER COMMERCIAL APPLICATIONS (PGDCCA)

Semester-I

Paper-I : Information Technology

UNIT-I

Introduction to IT and Computers, Block diagram of computer, functioning of computer, generations of computer, classification of computers, characteristics, advantages & limitations of computer. Computer organization: Central processing Unit - speed of processor, computer memory: primary & secondary, types of primary memory, registers. Storage devices: floppy disk, Hard disk, magnetic tapes, optical disk (CD/ DVD), solid state storage (Flash memory cards, pen drive, etc.). Input devices: keyboard, mouse, joystick, light pen, scanners, OCR, MICR, Touch Screen, Bar code reader. Output devices: monitor, printers, classification of printers, impact & non-impact printers, dot matrix, ink jet, laser, thermal printers, plotters.

UNIT-II

Data Representation

Binary, Octal, Hexadecimal, BCD, ASCII – Features and conversions.

Computer Software

Types of software, types of languages, compilers & interpreters

Operating Systems- concept, need, and functions; Salient features of Dos and UNIX operating system.

UNIT-III

Computer Communication & Networking Concepts

Forms of data communication- analog, digital; Communication channels; Concept of bandwidth;

Data transmission media- wire, fiber optics, cable, satellite, microwave; Rate of data transmission.

Types of networking :Telephone networks, ISDN, LAN, MAN, WAN, and VAN; Networking topology., OSI Model

UNIT-IV

Concept of E-Commerce & Internet

Brief history and development of internet, www, Internet architecture- servers, browsers, URL, service providers- shell account, TCP/IP

Internet services and applications

Email, education, financial services, e-commerce, banking, shopping, advertising and governance.

Virus, Types of Viruses, Anti-Virus, Firewall and Anti-Spy ware Utilities

BOOKS RECOMMENDED:

1. I.T. TODAY (ENCYCLOPEDIA) BY S. JAISWAL (TEST BOOK)
2. COMPUTER TODAY BY DONALD SENDERS
3. Computer Applications in Management – Usha Dahiya, Sapna Nagpal(Taxmann's)
4. Information Technology - Dr. Sushila Madan (Taxmann's)
5. UNDERSTANDING COMPUTER BY DINESHKUMAR
6. COMPUTER FUNDAMENTALS BY P. K. SINHA
7. OFFICE AUTOMATION BY K.K. BAJAJ (MACMILAN)
8. BUSINESS ON THE NET AN INTRODUCTION TO THE WHATS AND HOWS OF E-COMMERCE BY K. N. AGARWALA & OTHERS (MACMILAN)
9. INFORMATION TECHNOLOGY BY S.B. KISHOR (DASGANU PRAKASHAN)
10. Fundamentals of Computers – ITL Education Solutions Ltd. (Pearson)

Paper-II : Programming Skills

UNIT – I

Programming Logic : Problem Analysis, Process Analysis, Conceptual Development of solution.
Development Tools : Algorithm & Flowchart Translator : Interpreter, Compiler Introduction to C, C-Character Set and Keyboards, Constants and Variables, Data types, Type Casting, Type Modification,
Operators and Expressions – Arithmetic, Relational, Logical Assignment, Ternary, Bit wise and Increment and Decrement Operator
Input and Output statements in C.

UNIT – II

Storage Class: Automatic, static, External.
Control Statement
If-else, go-to, while, do- while and for loop statements, Switch and Use of Break and Continue statements

UNIT – III

Arrays: Declaration, Referring Individual elements, Entering data in to an array, Reading data from array, Array initialization, Printing of Array, Searching. Sorting and merging of array, String Manipulation using string library functions.
Function: Arithmetic and String Library Function, User defined functions, Arguments and local variables, Returning function result, use of void, functions without value and reference and function with call by value and call by reference, recursion.
Pointer: Introduction to pointer and function, pointer and structure, Pointer and Array, Call by value and call by Reference, Pointer and string
Dynamic memory allocation: Sizeof (), malloc ()

UNIT – IV

Structure: Declaration Structure, Initializing Structure, Structure variables, accessing structure elements, Arrays of Structure, Structures containing Arrays.
Unions: Concept and applications. Enum
Files: Concept of file, Modes of files, Open and Close, Creation and reading of files, Character input/output, getchar, putchar, getch, putch, string input and output: sscanf, sprintf, gets, puts. File input/output : fprintf, fscanf, getc, putc, Block read, Block read/write: fread, fwrite.
File inclusion and command line argument.

BOOK RECOMMENDED:

1. COMPUTER PROGRAMMING IN C BY V RAJARAMAN (PHI)
2. C-PROGRAMMING BY S.K. SHRIVASTAVA
3. PROGRAMMING IN 'C' BY BALAGURUSWAMI
4. EXPLORING 'C' BY KANETKAR
5. LET US 'C' BY KANETKAR
6. PROGRAMMING USING C BY DR.S.B. KISHOR (DASGANU PRAKASHAN)

Paper-III : Operating Systems Concepts & Software Package

UNIT – I

Introduction to Operating System, definition, need, functions, types of operating system, simple batch system, multiprogramming, time sharing system, parallel system, distributed systems, real-time system, multiprocessing, on-line and off line processing, multitasking, virtual memory management.

UNIT – II

Introduction to Disk Operating System (DOS)

- File types, Directory Structure, Booting - Warm and Cold Booting, Types of DOS commands (Internal and External), Introduction of Autoexec and Config files.
- Directory commands: DIR, MD, RD, TREE, PATH, SUBST ETC., Wild card Definitions, Commands related to file management: COPY, DEL, ERASE, REN, ATTRIB, XCOPY, BACKUP and RESTORE, General commands: TYPE DATE, TIME, PROMPT etc., batch commands, wild card characters & its use.

Introduction to windows Operating System

Advantages of windows operating system, using different windows applications simultaneously, operating with windows, GUI, use of help features, starting an application, essential accessories, creating shortcuts, windows explorer, control panel, my computer, my documents, recycle bin, finding folders and files, changing system settings, system tools, use of run command, setting peripherals, drivers, editing graphics in windows, new features in windows XP/Vista versions.

UNIT – III

WORD PROCESSING

MS WORD – introduction, basics, starting Word, creating document, parts of Word window, mouse and keyboard operations, designing a document; Formatting- selection, cut, copy, paste; Toolbars, operating on text; Printing, saving, opening, closing of document; Creating a template; Tables, borders, pictures, text box operations; Mail Merge.

SPREAD SHEET PACKAGE

Introduction to MS EXCEL, navigating, Excel toolbars and operations, Formatting; copying data between worksheets; entering formula, chart creation; data forms, data sort; Functions in Excel- ROUND(), SQRT(), MAX(), MIN(), AVERAGE(), COUNT(), SUMIF(), SUMIF(), ABS(), ROMAN(), UPPER(), LOWER(), CELL(), TODAY(), NOW().

UNIT – IV

POWER POINT PRESENTATIONS

Introduction, Working with Power Point Window, Standard Tool Bar, Formatting tool bar, Drawing tool Bar, Moving the Frame, Inserting Clip Art, Picture, Slide ; Text Styling, Send to back, Entering data to graph, Organization Chart, Table, Design template, Master Slide, Animation Setting, Saving and Presentation, auto Content Wizard.

DBMS

Introduction to Database Management System, DBMS Vs RDBMS

Introduction to Microsoft Access, Creating a Database in Access

Using Database wizards & Blank Database.

Creating table, Database view and Design View,

Creating queries, forms and Reports in MS Access.

BOOK RECOMMENDED :

1. MODERN OPERATING SYSTEMS 2nd EDITION BY TANENBAUM (PHI)
2. DOS/UNIX & WINDOWS: I.T. TODAY (ENCYCLOPEDIA) BY S. JAISWAL
3. OPERATING SYSTEM CONCEPT: SILLBERSCHATZ GALVIN
4. MSDOS; MANUAL
5. A First Course in Computers – Sanjay Saxena
6. Mastering Access – Simpson Olson
7. Guide to Microsoft Access – Carl Townsend

Paper-IV : Computerized Accounting (Tally)

Unit-I

Introduction to Accounting, Advantages of accounting, Books of accounts, Classification of Accounts, Financial Statements, Inventory management, Computerized Accounting, Need of Computerized Accounting, Accounts Organization, Accounts group, Loans Liabilities, Assets and Budget.

Unit-II

Accounting Software's Introduction to tally Software, Features of Tally Screen, Company information, Creating new Company, Gateway, Selection of Company, selection of Options, Buttons at Gateway, Working with multiple Companies, Company Features, Configuration- General, Numeric Symbols, Voucher Entry, Creation of Voucher Screen, invoice Order Entry, Printing.

Unit-III

Accounts info menu, Account Groups- create new group, creation of primary group. Normal and advance information, Ledger Accounts, cost categories, Cost Centers. Creation of Budget, Types of budget. Voucher- Voucher Entry, creation of Vouchers Screen, types of Voucher, Selection of Voucher types, Post Dated Voucher, printing of Vouchers, Cheque Printing, advance Features of account Voucher.

Unit-IV

Inventory info, Features of Inventory info. Configure- Inventory Info, balance Sheet, Audit Trail, Ratio Analysis. Display-Accounting Report Display, Inventory report Display, and MIS Report Display. Printing Reports, Export, Export of Data. Maintenance- Bank Reconciliation, House Keeping, Data Maintenance. Security- Users and Password, Security Controls, Types of Security, Creation New Security Levels and Tally Audit. Introduction to ERP

Practical:

Tally Software – All Accounting Problems Viz. Balance sheet, Profit & Loss, Cash Book, Loans, Cost Accounting, Vouchers, Budget, Sales and Purchase, Assets & Liabilities, Inventory Management, Financial Statements, Books of accounts, Ledger, etc.

Books Recommended:

1. Accounting with Tally : K.K. Nadhani, BPB Publication
2. Tally Tutorial : K.K. Nadhani and A.K. Nadhani, BPB Publication.
3. Advances Accounts Vol-I: M.C. Shukla, T.S.Grewal and S.G.Gupta, S.Chand & Company, Delhi.
4. Accounting Principles: Anthony R.N. and J.S. Richard, Irwin Inc.
5. Advanced Accountancy By P.C. Tulsian, Tata McGraw HILL Publication.
6. Tally By S.B. Kishor (Dasganu)
7. Fundamentals of Computers – ITL Education Solutions Ltd. (Pearson)

Practicals :

Practical-I : Programming Skills

Practical-II : Operating System (MS-DOS, Windows) and MS-Office

PGDCCA

Semester-II

Paper-I : Management Information Systems

UNIT -I

System Concepts:

System approach, characteristics, Types of System Elements – Input, Output, Environment, Boundary Interface, feedback, Control, SLC, MIS, TPS, OAS, DSS, KWS, Value of information, information life cycle, data Vs information, information and decision making.

UNIT -II

Information gathering - Sources, Methods, Interviews, questionnaires, observation, Document analysis etc. System analysis – Structured systems Analysis, PARTS model, planning approach- elements, objectives, constraints , feasibility study, Tools of data recording, DFDs, CASE tools, data dictionary, Model Building – Logical

UNIT -III

Output input design , form design, process design, process specification file design, program design, module integration, storage requirement ,selection of hardware and software, software controls, DADs, IRCs, STDs, use and provisions of networks.

UNIT -IV

Testing and Implementation

Testing: Code testing, specification testing, types tests, verification and validation systems security and privacy, system audit

Documentation : user's, System , operations

Role and qualities of system analyst as a change agent.

Implementation – Methods of change over, transition and conversion, change management, user training.

BOOK RECOMMENDED :

1. SYSTEM ANALYSIS AND DESIGN BY E. AWAD (GALGOTIA)
2. MANAGEMENT INFORMATION SYSTEMS BY S. SADAGOPAN (PHI)
3. MANAGING WITH INFORMATION 4th EDITION BY KANTER (PHI)
4. SYSTEMS ANALYSIS AND DESIGN BY EDWARD (TMH)
5. Computer Based Information System - Dr. Sushila Madan (Taxmann's)
6. SYSTEM ANALYSIS AND DESIGN BY DON YEATS (MCMILLAN)
7. MANAGEMENT INFORMATION SYSTEM : GOYAL
8. MANAGEMENT INFORMATION SYSTEM : JAWADEKAR (TMH)
9. MIS AND SYSTEM ANALYSIS By Dr. S.B. Kishor (Dasganu)

Paper-II : Visual Basic

Unit –I

Introduction to Visual Basic, Event driven programming, **Programming constructs** - Variables, Types of Variables, Data Types, Scope of Variables, Constants, system defined functions, Operators (Precedence and Associativity), Creating User Interface, **VB Controls** (Label, Text box, Command button, Frame, Check box, Option button, List box, Combo box, Timer, Drive list box, Directory list box, File list box, Horizontal and vertical scroll bars, Image, Picture box, Shape, Line, Data, OLE container), **Microsoft windows common controls** (Tab Strip, Tool bar, Status Bar, Progress Bar, Tree View, List View, Image List, Slider, Date Picker, Month View), adding controls to a form, adding controls at run time,

Unit –II

Working with Procedure, Function and Modules (Form, Class, Standard Modules)
Scope of Procedures, Calling Procedures, Calling Functions, Passing Arguments,
Control Structures : If-Then, If-Then-Else, Select Case, **Loops Structures** : Do-While, While - Wend, For-Next, For-Each, With-End With.
Arrays : Declaring an Array, Types of Array (Fixed arrays, Single-dimensional arrays, Multidimensional arrays, Dynamic arrays), Control Array.
Menus : Creating Menus, Adding Menu Items, Adding Code for the Menus, Modifying menus at run time, Creating Pop-Up Menus.

Unit – III

Database Programming in Visual Basic

Use of data control, creating database using Visual data manager, validating data, data bound controls.

Comparative study of Data Access Techniques : DAO, RDO, ADO, ODBC

Data access object :

DAO Architecture , Database connectivity through data access object. Types of recordset , setting properties and record editing & updating , searching records.

UNIT IV :

Active X data object

ADO architecture, setting data source through Active X Data objects. Use of ADO control , connecting ADODC to bound controls. Use of different data bound Controls. Editing , Updating & searching through ADO.

Data Reports, Data Environment designer adding connection & commands Data report controls creating & printing reports.

Error handling : Types of errors, Debugging , tools for debugging, break mode, break points, watch window, immediate window.

Handling runtime errors.

BOOKS RECOMMENDED :

1. PAUL SHERIFF TEACHES VB-6 BY SHERIFF (PHI)
2. VISUAL BASIC: PETER WRITES
3. LEARN VB 6 BY HALVARSON (MICROSOFT/PHI)
4. VB PROGRAMMING FOR A ABSOLUTE BEGINNER – MICHAEL VINE (PHI)
5. VISUAL BASIC: SUPPER BIBLE TECH MEDIA
6. VISUAL BASIC: STEPHEN SOLOSKY (PHI)
7. COMPLETE REFERENCE VISUAL BASIC – TATA MCGROW HILL
8. FRONT END DEVELOPMENT USING VISUAL BASIC BY DR. S.B.KISHOR(DASGANU)

Paper-III : Principles and Practice of Management

Unit –I

Principles Of Management:

Concept of Management: - role & importance, Management –art, science & profession;

Process of decision-making: - Controlling, Decision Making, Leadership and Communication.

ORGANIZATION :- Concept, importance, types of organization, departmentation, authority and responsibility, delegation, span of control, centralization vs. decentralization. Control: Meaning, Need, types, process, steps in establishing control system.

UNIT – II:

MARKETING MANAGEMENT:

Meaning, Nature, Scope of marketing process, 7Ps of marketing; Segmentation – Concept, need and methods. Marketing Research – Meaning Scope, methodology, Marketing Plan –Formulation, strategic marketing process – GE, BCG, SBU etc. models

UNIT – III:

HUMAN RESOURCE MANAGEMENT:

Nature, concept, significance of human factor, human resource planning – recruitment and selection, Job evaluation: concept objectives, importance, procedures; Merit rating and performance appraisal: Need, methods; Record keeping: Service records, attendance, absenteeism; HRA.

UNIT – IV:

BUSINESS COMMUNICATION:

Process, Objectives, Significance, Types, Barriers to effective communication, Listening and interpersonal skills. Coordination : Concept importance, need, principles, methods of effective coordination. Negotiations: Bargaining, Compromise, Lose- lose and win-win orientation, elements of negotiation. Making presentations, writing letter. Report Writing: Elements of report, framework, structure of report, types; Steps in writing report.

BOOK RECOMMENDED:

1. PRINCIPLES OF MANAGEMENT BY V.P. MICHEL
2. PRINCIPLES OF MANAGEMENT & ADMINISTRATION BY CHANDRA BOSE (PHI)
3. PRINCIPLES OF MANAGEMENT BY TRIPATHY REDDY
4. DEVELOPING OF COMMUNICATION SKILLS – MOHAN (MCMILLAN)
5. MARKETING MANAGEMENT BY PHILIP KOTLAR
6. PERSONNEL MANAGEMENT BY C.B. MEMORIA.
7. BUSINESS COMMUNICATION BY ASHA KAUL (PHI)
8. PRINCIPLES OF BUSINESS MANAGEMENT BY DR.PRATIBHA SIRIYA (SAI JYOTI PUBLICATION)

Paper-IV : E-Commerce and Web Development

Unit-I

Introduction, Definition, Benefits of E-Commerce, Impact of E-Commerce on business models, Traditional Commerce Vs E-Commerce, Advantages and Disadvantages of E-Commerce, Electronic Commerce and the Trade Cycle. **Electronic Market** : Usage, Advantages and Disadvantages and its future. **Electronic Data Interchange (EDI)** : Introduction, Benefits, Trade Cycle and Example. **Internet Commerce** : Introduction, Internet Trade Cycle and example, **Internet Security** : Secure Transaction, Privacy issues, computer crimes and its type, **Security Issues** : Security threats like damage to data, loss of data and unauthorized use of data, **Security Procedure** : Firewall, Encryption, Password, Access Control List, Digital Certificate.

UNIT – II

HTML

Introduction to HTML, creating HTML documents, Creating web pages with HTML Tags : HTML, Head, Title, Body H1, H2, H3, H4, Paragraph tags, Alignment, Formatting, Font size, attributes, list, Character formatting : Logical verses physical style, logical and physical style. Changing the colors of the fonts. Multiple tags.

Linking :Relative pathnames verses absolute pathnames, URLs, Link to specific sections, Links between sections of different documents, Links to specific sections within the current document, Mailto.

UNIT – III

Inline Images : Image size attributes, inline images, alternate text images, Images a Hyperlink, Image map navigation

Frames and Tables : Table row and columns, creating simple tables, Spanning row and columns with HTML tables, spanning rows and columns. Table alignment properties.

Embedding Multimedia : Introduction, Embedding Multimedia, Inserting sound/audio formats, video file formats.

Form designs, Form Controls, Text controls, password fields, radio buttons, checkboxes, reset and submit buttons, form control selection, option processing and textarea.

UNIT – IV

Scripting Language , Types of Scripting languages, JAVA SCRIPT – Introduction, Advantages, Disadvantages, Working of JavaScript, Structure of JavaScript program, Variable, Data types, Operators & Expression, Decision Making- if—else, switch, loops(for, for...in, while, do...while), break & continue, , Arrays – Types, methods

Functions – Types, declaration, passing parameter, return statement, recursion

Dialog box in JS – Alert, Prompt, Confirm

Events in JS, Error Handling in JS, JS Objects – Object Hierarchy, Native objects, Math Objects, Date, Boolean Object, Navigator, Window, Frame, History, location, Document, Anchor, Applet, Area, image, link, Form object, Validation in JS, Creating Floating toolbar.

Introduction to PHP and MySQL.

BOOKS RECOMMENDED :

1. Electronic Commerce by Greenstein and Feinman (TMH)
2. E-Commerce by Bhushan Dean – S. Chand
3. Web Publishing by Monic D'souza and J D'souza
4. Complete HTML by BPB
5. HTML – 4 Unleashed (SAMS)
6. Dynamic HTML by O'RELLY (SPD)
7. Java Script Programming for the absolute beginner by Harris (PHI)
8. Java Scripts unleashed (SAMS)

Practicals :

Practical-I : Visual Basic-6

Practical-II : Web Development (HTML, JavaScript)

Project

Project :

Towards the end of the second year of study, a student will be examined in the course "Project Work".

- a. Project Work may be done individually or in groups (Maximum 3 students) in case of bigger projects. However if project is done in groups, each student must be given a responsibility for a distinct module and care should be taken to monitor the progress of individual student.
- b. The Project Work should be done using the tools covered in PGDCCA.
- c. The Project Work should be of such a nature that it could prove useful or be relevant from the commercial / management angle.
- d. The project work will carry 100 marks.
- e. Project Work can be carried out in the Institute or outside with prior permission of the Institute.
- f. The external viva-voce examination for Project Work would be held as per the Examination Time Table of the second year of study, by a panel of one external and one Internal examiner.

Types of Project

As majorities of the students are expected to work out a project in some industry/research and development laboratories/educational institutions/software export companies, it is suggested that the project is to be chosen which should have some direct relevance in day-today activities of the candidates in his/her institution. The Applications Areas of project - Financial/Marketing/ Database Management System / Relational Database Management System/ E-Commerce / Internet/ Manufacturing /web Designing etc.

Project Proposal (Synopsis)

The project proposal should be prepared in consultation with the guide. The project guide must be a person having minimum Qualification MCM/M.Sc. (Computers)/ M.Sc. (Maths/Electronics/Statistics/Physics + Post B.Sc. Dip. In Comp. Sc. & Appl.)/MCA. The project proposal should clearly state the objectives and environment of the proposed project to be undertaken. It should have full details in the following form:

1. Title of the project
2. Objectives of the Project
3. Project Category (DBMS/RDBMS/OOPS/Web Designing/Internet etc.)
4. Tools/Platform, Languages to be used
5. A complete Structure of the program:
 - i. Analysis.
 - ii. Numbers of Modules.
 - iii. Data Structures or Tables
 - iv. Process Logic.
 - v. Types of Report Generation.
6. Scope of future Application.

Project Report Formulation.

1. Title Page.
2. Certificate Page.
3. Declaration Page.
4. Acknowledgment Page.
5. Index or Content Page.
6. Documentation.
 - i. Introduction/Objectives.
 - ii. Preliminary System Analysis.
 - Identification of Need.
 - Preliminary Investigation.
 - Feasibility Study.
 - Need Of New System.
 - Flaws in Present System.
 - iii. Project Category.

- iv. Software Requirement Specification.
 - v. Detailed System Analysis.
 - Data Flow Diagram.
 - Numbers of Modules and Process Logic.
 - Data Structures and Tables.
 - Entity-Relationship Diagram.
 - vi. System Design.
 - Source Code.
 - Input screen & Output Screen.
 - vii Validation Checks.
 - viii Implementation, Evaluation and Maintenance.
 - ix Security Measures taken.
 - x Future Scope of the project.
 - xi Bibliography.
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Note :-

- i. A Student is expected to complete the Assignments based on Syllabus of Practical subjects and Submit the same in the form of a files (assignment Record) at the end of Academic Session for the evaluation purpose.
- ii. A student should submit internal assessment of each theory paper prescribed by the subject teacher.

Classification Of Practical Marks :-

Practical – I	Marks
1. Writing a Program or Problem (Algorithm & Flowchart)	40
2. Execute on a computer	
3. Taking Hard Copy	
Practical – II	
1. Writing a Program or Problem (Algorithm & Program)	20
Viva Voce	20
Practical Record	20

Total Marks	100

Classification Of Marks on Project :-

	Marks
Report & Documentation	40
Viva voce (External)	40
Viva Voce (Internal)	20

Total Marks	100

The marks of Practical and Project shall be notified as a whole out of 100 in Foil/C-Foils.
