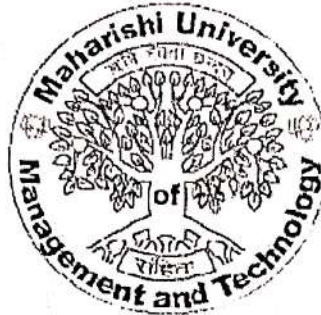# MAHARISHI UNIVERSITY OF MANAGEMENT AND TECHNOLOGY

MAHARISHI ROAD, MANGLA, BILASPUR (C.G)

BOARD OF STUDIES MEETING - MINUTES

DATE OF THE MEETING-25.04.2022

For the Approval of Syllabus of Program me

DCA, BCA, PGDCA, DMA

Venue: Hall in the Administrative building,
Maharishi University of Management & Technology
Mangla, Bilaspur

HEAD
Dept. of Computer Science
Maharishi University of
Management & Technology
Mangla, Bilaspur (C.G.)

MAHARISHI UNIVERSITY OF MANAGEMENT AND TECHNOLOGY

MAHARISHI ROAD, MANGLA, BILASPUR (C.G.)

Department of Computer Science & Information Technology

Agenda

Date: /   /2022

Proposed agenda items for BoS Meeting scheduled to be held   on..../.../.......

The proposed agenda items for BoS meetings are following, is to be discuss-

1.	On Syllabus of BCA session 2022-23.
2.	On Syllabus of PGDCA session 2022-23.
3.	On Syllabus of DCA session 2022-23.
4.	On Syllabus of DCA session 2022-23.
5.	Each program has intake at 60 seats, multiples of unit/intake in particular course is subject to the approval at BoM.

H.O.D./Chairman

MAHARISHI UNIVERSITY OF MANAGEMENT AND TECHNOLOGY
MAHARISHI ROAD, MANGLA, BILASPUR (C.G.)

Date: 25/04/2022

The Board of studies meeting of 25/04/2022. held on   MUMT,Bilaspur at conference Hall of Maharishi University of Management And Technology, Maharishi Road, Mangla, Bilaspur (C.G.)

Members Presented:

RAKESH KUMAR KHILLAN   -   Chairman
IT HOD (I/c)
MUMT,Bilaspur (C.G)

Dr. Garima Sharma   -   External Member
HoD, School of Computer Science & IT
Career Point University Kota,
Rajasthan

Dr. Aabid Hussain
Assistant School of Computer Science & IT   -   External Member
Career Point University Kota,
Rajasthan

Dr. Abhishek Srivastava   -   University Nominee
Professor
MUMT, Bilaspur (C.G)
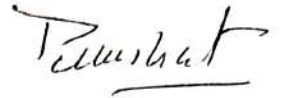
REGISTRAR
MAHARISHI UNIVERSITY OF
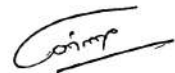MANAGEMENT & TECHNOLOGY
MANGLA. BILASPUR (C.G.)

Dr. Prashant Upadhyay
Assistant Professor
MUMT, Bilaspur (C.G)

- Internal Member

Dr. Garima
Associate Professor
MUMT, Bilaspur (C.G

- Internal Member

Special Invitees

Dr. Yogendra Sharma
Assistant Professor
MUMT, Bilaspur (C.G)

Mr. Tushar Ranjan Barik
Assistant Professor
MUMT, Bilaspur (C.G)

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MAHARISHI ROAD, MANGLA, BILASPUR (C.G.)

Minutes of the Meeting

1.	**On Syllabus of BCA session 2022-23.**	
	Resolution: Discussed	
2.	**On Syllabus of PGDCA session 2022-23.**	
	Resolution: Discussed	
3.	**On Syllabus of DCA session 2022-23.**	
	Resolution: Discussed	
4.	**On Syllabus of DMA session 2022-23.**	
	Resolution: Discussed	
5.	To be discuss on the point" Each program has intake at 60 seats, multiples of unit/intake in particular course is subject to the approval at BoM".	
	Resolution: Confirmed Each program has intake at 60 seats, multiples of unit/intake in particular course is subject to the approval at BoM.	

MAHARISHI UNIVERSITY OF MANAGEMENT AND TECHNOLOGY
MAHARISHI ROAD, MANGLA, BILASPUR

BOARD OF STUDIES – Department of Computer Science & information & Technology
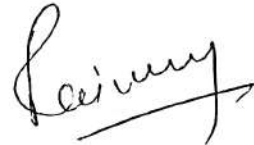
Minutes of the Meeting

Date 25/04/2022

The Board of studies meeting of **Department of Computer Science & information & Technology** held on 25.04.2022 at conference Hall of Maharishi University of Management And Technology, Maharishi Road, Mangla, Bilaspur (C.G.)

Members Presented :

RAKESH KUMAR KHILLAN
IT HOD (I/c)
MUMT,Bilaspur (C.G)   -   Chairman

Dr. Garima Sharma
HoD, School of Computer Science & IT
Career Point University Kota,
Rajasthan   -   External Member

Dr. Aabid Hussain
Assistant School of Computer Science & IT
Career Point University Kota,
Rajasthan   -   External Member

Dr.Abhishek Shirvastava
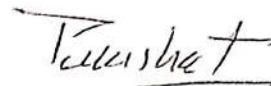Professor   -   University Nominee

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MANGLA BILASPUR (C.G.)

MUMT, Bilaspur (C.G)

Dr. Prashant Upadhyay **Assistant Professor** **MUMT, Bilaspur (C.G)**	-	**Internal Member**

Dr. Garima **Associate Professor** **MÜMT, Bilaspur (C.G**	-	**Internal Member**

Special Invitees

Dr. Yogendra Sharma
Assistant Professor
MUMT, Bilaspur (C.G)

Dr.Tushar Ranjan Barik
Assistant Professor
MUMT, Bilaspur (C.G)

The following points were discussed and recommended for academic council approval.

1. The DCA Curriculum and syllabus was presented by
   Rakesh Kumar Khillan and recommended for academic council for approval.

2. The BCA Curriculum and syllabus was presented by
   Rakesh Kumar Khillan and recommended for academic council for approval.

3. The PGDCA Curriculum and syllabus was presented by
   Rakesh Kumar Khillan and recommended for academic council for approval.

4. The DMA Curriculum and syllabus was presented by
   Rakesh Kumar Khillan and recommended for academic council for approval.

5. Permission for seat increment if number of candidates increases.

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Dr. Abhishek Srivastava   -

Dr. Garima   -

Dr. Aabid Hussain   -

Dr. Garima Sharma   -

Dr. Prashant Upadhyay   -

Mr. Rakesh Kumar Khillan   -

Special Invitees

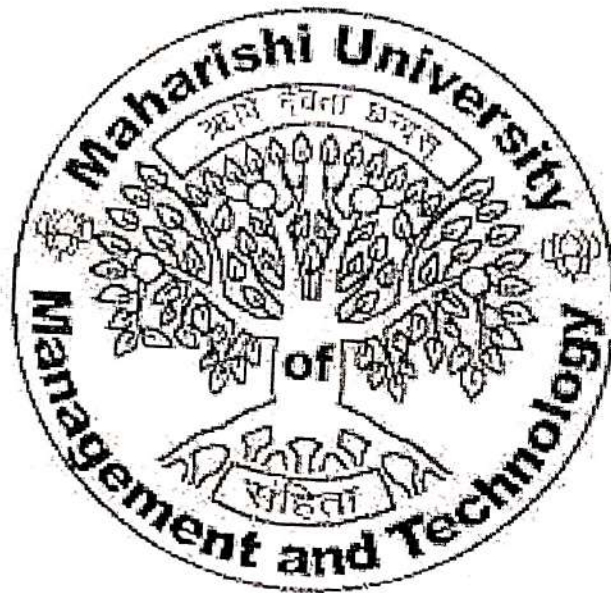Dr. Yogendra Sharma   -

Dr.Tushar Ranjan Barik   -

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MANGLA BILASPUR

The members had a valuable discussion and interaction among themselves. Based on the suggestions given by the members, BOS resolved to recommend the following to the Academic Council for further approval.

1. On Syllabus of BCA session 2022-23.

2. On Syllabus of PGDCA session 2022-23.

3. On Syllabus of DCA session 2022-23.

4. On Syllabus of DCA session 2022-23.

5. Each program has intake at 60 seats, multiples of unit/intake in particular course is subject to the approval at BoM.

Maharishi University of Management &Technology, Bilaspur

SYLLABUS
2022-23

Diploma in Computer Application

(DCA)

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Introduction of Program

Name of the Program - DCA

Aim of the Programme- DCA programme has been designed to prepare graduates for attaining the following specific outcomes:

- An ability to apply knowledge of mathematics, computer science and management in practice.
- An ability to enhance not only comprehensive understanding of the theory but its application too in diverse field.
- The program prepares the young professional for a range of computer applications, computer organization, techniques of Computer Networking, Software Engineering, Web development, Database management and Advance Java
- An ability to design a computing system to meet desired needs within realistic constraints such as safety, security and applicability in multidisciplinary teams with positive attitude.
- An ability to communicate effectively.
- In order to enhance programming skills of the young IT professionals, the program has introduced the concept of project development in each language/technology learnt during semester.

Seats: 60 (sixty)
Eligibility: 12th
Medium of Instruction: English

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DCA-Syllabus

S.N.	Paper Code	Paper No	Subject Title	Total
I SEMESTER				
1	FC-I(I)	I	Maharishi Vedic Science -I	100
2	DCA 101	II	Fundamentals of Computer and Information Technology	100
3	DCA 102	III	PC Package	100
4	DCA 103	IV	Programming Methodology and C Programming	100
5	DCA 104	V	Desk Top Publishing (DTP)	100
6	DCA 105	VI	Practical-	100
		Total		600
II SEMESTER				
7	FC-I(II)	I	Maharishi Vedic Science- II	100
8	DCA 106	II	Internet and Web Page Designing	100
9	DCA 107	III	Programming in Visual Basic	100
10	DCA 108	IV	DBMS using MS Access	100
11	DCA 109	V	Computerized Accounting	100
12	DCA 110	VI	Practical	100
13	DCA 111	VII	Project	100
		Grand Total		700

Programme Outcome:

PO-1. Enhance ability to use computer techniques.

PO-2. Develop understanding the basic components of computers and terminology.

PO-3. Make aware of different type of computer viruses and prevention.

PO-4. Develop ability to use computer to learn new skills and upgrade existing skills.

PO-5 Help to frame effective mail for good communication.

PO-6.Enhance ability touse word processor, spreadsheet and presentation software for creating documents.

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Programme Specific Outcome:

After completion of the course, candidates will be equipped with:-

PSO-1. Basics of computer and its function.

PSO-2. Acquire knowledge of features of Ms Word, Ms Excel, worksheets and drafting email.

PSO-3. Ability of creating and compiling C-Programs.

PSO-4. Understanding of Internet and functions of web browser.

PSO-5. Acquire knowledge of MS Access and creating, editing table in MS Access.

PSO-6. Acquire Knowledge of Data base programming, visual basic language, Graphic method and Image handling in visual basic.

PSO-7.Ability to create balance sheet, understanding of tally vault and use of tally audit.

SEMESTER-I

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Paper Code- FC-I (I)
Paper – I
Maharishi Vedic Science

Course Out Comes:

The subject entitled 'Maharishi Vedic Science has the following CO:

CO-1. Understand structures, patterns, models / thought models and rationale of the scientific knowledge systems of the west and the Vedic.

CO-2. Assimilate the Vedic worldview gleaning through the plethora of related knowledge streams.

CO-3. Contrast the western and Vedic worldviews and blend their functions in different applications as required through assimilation of their variety of structures and patterns made available through their respective ontologies.

CO-4. Prepare for a deep dive into Shaastras to supplement contemporary technology / lifestyle / personality solutions.

CO-5. Pursue career goals (armed with a vedic worldview) in science, technology, engineering, computation, governance & administration, leadership, public service, Shaastras, environmental sciences, politics, management, entrepreneurship and so on.

UNIT - I

Meaning & importance of Guru Pujan, Meaning of meditation, Mann, Intelligence, Chitta, Ego, Thought.

UNIT - II

Name of forty areas of Vedic Science and their expression in Human Physiology and characteristics of consciousness, Consciousness, types of consciousness, characteristics of higher stages of consciousness. Maharishiji's effect on Society, Environment, Behaviour and Moral Values.

UNIT - III

Maharishi's Yoga, Transcendental Meditation- a general Introduction, Types of Speech, TM Sidhi Programme, Principle of Yoga Asanas and their Concept. Meaning of " YogasthaKuruKarmani" and " GyanamChetanayaamNihitam".

UNIT – IV

Introduction: Maharishi Vedic Management. Fundamental elements of Vedic Management – Totality Introduction to Absolute theory of Maharishi Government.

UNIT – V

Theory of Ayurved, Vedic Management and Leadership.

Reference Books:

1. Maharishi Sandesh Part I and II.
2. ChetnaVigyan by His Holiness Maharishi Mahesh Yogi Ji.
3. DhyanShailey by BrahmachariDr. Girish Jii

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Course Out Comes–

CO-1. To make aware of history and development of Computers.

CO-2. Understanding Computer organization and its process of working.

CO-3.Understanding Input and Output devices and its function.

UNIT – 1

Introduction to computer and information technology : History of development of computers, computer system concept, characteristics, capabilities and limitation, types of computer analog, digital, hybrid, general, special purpose, micro, mainframe, super, generation of computer, personal computer (PCs)- IBM Pcs, characteristics, PC/PCXT/PCAT- configurations, Pentium and Newer PCs specification and main characteristics, types of PCs- Desktop, Laptop, Notebook, Palmtop, Workstation etc, their characteristics.

Computer Organization and Working: Basic component of a computer system- control unit, ALU, INPUT/Output function and characteristics, memory–RAM, ROM, EPROM, PROM and other types of memory.

UNIT - 2

Input Devices: Keyboard, Mouse, Trackball, Joysticks, Digitizing tablet, Scanner, Digital Camera, MICR, OCT, OMR, BAR-CODE Reader, Voice Recognition, Light Pen and Touch Screen.

Output Devices: Monitor – characteristics and types of monitor – digital, analog size, resolution, refresh rate, Interlaced/ Non Interlaced, Dot Pitch, Video Standard- VGA, SVGA, XGA etc, Printer - Daisy wheel, Dot Matrix, Inkjet, Laser, line printer, plotter, sound card and speakers.

UNIT – 3

Storage Devices : Storage Fundamental – Primary VS Secondary, Data Storage and Retrieval method – Sequential, Direct and Index Sequential, Various Storage Devices – Magnetic Tape, Magnetic disks, Cartridge Tape, data drives, hard disk drives, floppy (Winchester disks), Disks, Optical Disks, CD, VCD, CD-R, CD-RW,ZIP Drive.

Computer Software: Need types of software – system software, application software, system software- operating system, utility program, programming Language, assemblers, complier and interpreter.

UNIT - 4

Operating System : Function types – Batch, Single, Multiprogramming, Multiprocessing, Programming languages- Machine, Assembly, High Level and 4GL. Merit and Demerits of Programming Languages.

Disk Operating System (Dos) Introduction History & version of Dos basic – physics structure of disk name, Fat, File & directory structure and naming rules, booting process, Dos system files. Dos command: Internal – DIR, MD, CD, RD, COPY, DEL, REN, VOL, DATE, TIME, CLS, PATH, TYPE etc. External – CHKDSK, XCOPY, PRINT, DISKCOPY, DISKCOMP, DOSKEY, TREE, MOVE, LABEL, APPEND, FORMAT, SORT, FDISK, BACKUP, EDIT, MODE, ATTRIB, HELP, SYS, etc Executable V/s Non executable file in Dos.

Number System : Data representation in computer, number system of computer- Binary, Octal, Hexa - Representation & their conversion, coding system- ASCII, BCD, EBCDIC etc.

UNIT – 5

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Data Communication and Networks : Communication channels – twister, coaxial, fiber, optic. Types of Network – LAN, WAN, MAN etc, Topologies of LAN – Ring, BUS, STAR, MESH and TREE topologies, components of LAN – media, NIC, NOS, Bridge, HUB, Routers Repeater and Gateway.

Computer virus: Virus working principles, types of viruses, virus detection and prevention, viruses on network. Use of communication and IT daily life.

An Introduction : Modern Science and Vedic Science, Unified field based computer Science.

REFERENCE & TEXT BOOKS

1. Learning Windows 98 step by step by Rajeev Mathur, BPB Publication.
2. Learning Word 97 for Window by Rajeev Mathur, BPB Publication.
3. Learning Excel 97 for Window by Rajeev Mathur, BPB Publication.
4. A First Course in Computer by Sanjay Saxena, Vikas Publishing House New Delhi.
5. Microsoft Office 2000 by A. Mansoor by Pragya Publication.
6. Office 97 Interactive Course by Greg Perry. Tec media.
7. Microsoft Office 2000 by A. Mansoor by Pragya Publications.

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Course Out Comes-

CO- 1. To make aware of creating, saving, opening documents and editing documents.

CO- 2. Helps to use advanced feature of MS Word and checking grammar, spelling and formatting of files.

CO- 3. Understanding Ms excel, basics of worksheet and drafting emails.

UNIT – 1

Word-processing : MS-Word : Introduction to word processing, introduction to MS- Word: features, creating, saving and opening documents in word, interface, Toolbars, Ruler, Menus, Keyboard Shortcut, Editing a document- moving, scrolling in a document, opening multi document window, editing text selecting, inserting, delete, moving text, previewing document, printing document – Print a document from the standard toolbars, print a document from the menu, shrinking a document to fit a page, reduce the number of pages by one, formatting document: paragraph format, Aligning text and Paragraph, Border and shading, header and footer, multiple columns.

UNIT – 2

Word –processing: Advanced Feature of MS Word: Find and replace, checking the grammar and spelling, formatting via find and replace, using the thesaurus, using Auto correct, Auto complete and Auto Text, Word count, Hyphenating, Mail merge, mailing labels Wizard and Templates, handling graphic, tables insert and modification, converting of tables. Converting a word document into various formats like – Text, Rich Text Format, Word Perfect, HTML etc.

UNIT – 3

Worksheet : MS- Excel : Worksheet basics, Creating worksheet, entering data into worksheet, heading information, data text dates, alphanumeric, values, saving & quitting worksheet, opening and moving around in a existing worksheet, toolbars and menus, keyboard shortcut, working with single and multiple worksheet, coping, renaming, moving between work books, working with formulas & cell referencing – Auto sum, Coping formulas, absolute & relative addressing, working with range – creating editing and selecting range, formatting of worksheet – Auto format, changing – alignment, character styles, column width, data format, border &colors, currency sign.

UNIT – 4

Worksheet : MS- Excel : Previewing & Printing Worksheet- Page setting, print titles, Adjusting margins, page break, header and footer, graphs and chart- using wizard, various chart types, formatting grid lines & legends, previewing & printing chart, database – creation, sorting, query * filtering a database, function – database, date and times, math's & Trigonometry, statistical, Text and logical function, creating and using macros, multiple worksheet – concept creating and using.

UNIT – 5

MS Power Point: Introduction and area of use, working with MS Power Point, creating a new presentation working with presentation, using wizards, slides & different views, deleting coping slides, working with notes, handout, columns and list, adding graphics, sound and movies to a slide, working with power point objects designing and presentation of a slide show, printing and presentation, notes, Handouts with print options.

Outlook Express: Setup E-mail account with outlook, sending and receiving mail through outlook, concepts of CC, BCC, forwarding mail, draft message, formatting E-mail message , Concept of MIME Protocol, attaching files and items into messages, inserting hyperlink using outlook editor and using stationary and receive

group mails, opening received message, opening message with attachment, replying to mail forward message flagging for further action, setting email options, managing contacts with outlook, setting up multiple email account on single machine.

REFERENCE & TEXT BOOKS

1. Window XP Complete Reference, BPB Publication
2. MS Office XP Complete BPB Publication
3. IT Tools and Applications Pragya Publications

Course Out Comes–

CO- 1. Making aware of Program concept, its characteristics and various programming techniques.

CO- 2. Develop ability to understand C-language , its standards and features.

CO- 3. Understanding to create and compile C programs.

UNIT – 1

Program Concept, Characteristics of Programming, Various Stages in Program Development, Algorithms, Flow Charts, Programming Techniques – Top Down, Bottom Up, Modular, Structured, Features, Merits, Demerits and Their Comparative Study, Programming Logic – Simple, Branching, Looping, Recursion, Programming Testing & Debugging.

UNIT - 2

Introduction to C Language, C Language Standards, Features of C, Structure of C Program, Introduction to C Compliers, Creating and Complier C Programs, IDE, Features of Turbo C Compiler. Keywords, Identifiers, Variables, Constants, Scope and Life of Variables, Local and Global Variable, Data Types, Expressions. Operators – Arithmetic, Logical, Relational, Conditional and Bit Wise Operators, Precedence and Associability of Operators, Type Conversion. Basic Input / Output Library Functions, Character Input/Outputgetch(), getchar(), getcher(), putchart(). Formatted Input/Output – printf() and scanf(), Mathematical & Character Functions.

UNIT – 3

Declaration Statement, Conditional Statement – if Statement, if else Statement, Nesting of it... else Statement. else if Ladder, The?: Operator, switch Statement. Iteration Statement – for Loop, while Loop, do-while Loop. Jump statements: break, continue, goto, exit(). Arrays – Concept of Single and Multi Dimensional Arrays Strings : Deceleration, Initialization, Functions.

UNIT – 4

The Need of C Functions, User Defined and Library Function, Prototype of Functions, Prototype of main (). Function, Calling of Function, Function Arguments, Argument Passing: Call By Value and Call By Reference. Return Values, Nesting of Function, Recursion, Array as Function Argument, Command Line Arguments, Storage Class Specified – Auto, Extern, Static, Register.

UNIT – 5

Defining Structure, Declaration of Structure Variable, Type def. Accessing Structure Members, Nested Structures, Array of Structure, Structure Assignment, Structure as Function Argument, Function that Return Struct Definition.

REFERENCE & TEXT BOOKS

1. Balaguruswamy, "Programming C", TMH Publication.

2. Goufried Schaums outline series, "Programming with C", TMH Publication.
3. Mahapatra, "Thinking in C", (PHI) Publications
4. Seetha, "Introduction to computers and information technology". Rain Prasad & sons, Bhopal
5. Basandra, "Computers Today". Galgotia Publication.
6. Peter Juliff "Program Design" PHI Publication.

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Course Out Comes–

CO- 1. Understanding DTP, its importance, characteristics and its use in publishing and newspaper printing.
CO- 2. Understanding Adobe page maker and its usage.
CO- 3. Ability to create files using colours, fonts, filters and understanding photoshop and creating animations.

UNIT – 1

Introduction to DTP> Definition, Importance, Characteristics. Use of DTP in publishing & Newspaper Printing. Various DTP Software. Bit stream & vector graphics. Printers _ Dot Matrix, Inkjet and Laser. Introduction to offset printing technology. Typography – history, element, selection of fonts, point use of blank spaces and dashes, white spaces, various breaks, Good designing and Easy readability. Different Measurement used in DTP printing.

UNIT – 2

Introduction to Adobe Page Maker. Why Page Maker popular in publication. Toolbox, Styles, Menus, Templates. Page Orientation & Page Setup. Importing & Text block. Spell Check & find & Replace. Working with text and graphics. Columns & gutters. Different Page Layouts. Master page, page Numbering. Auto flow. Story Editor & Layout view. Attribute setting, Alignments, grids, and Guides etc. Tab Setting.

UNIT – 3

Import & Export of files Styles & Palettes. Using colors, Fonts: Post script font, true types fonts, bit stream & vector. Column Balancing, Breaks. I Reverse Text. Reverse Command. Printing Options. Placing Text Graphic. Picture Editing. Bullets. Masking. Window & Orphan Lines. Text Warpping. Drop Caps. Contrast Image Clips & Image Files. OLE & Embedding. Plugging. Tables Editors. Filters, Layer, PDF Files. Header & Footers. Key Board Control. Linking. Mathematics equation. Printing Options. Frame Options.

UNIT – 4

Photoshop – History & introduction, the file menu, the tools, Drawing lines & shapes. Inserting picture and shapes colors, text effects, working with layers, filters. Creating design patterns, Photoshop presentation – static & dynamic presentation. WEB & WEB GALLERY using internet explorer in photo in photo shop. Creating animations using image ready, creating animations & presentations. Tips and tricks in Photoshop.

UNIT – 5

Corel draw – An overview, menus and tools. Drawing – lines, shapes. Inserting-pictures, objects, tables, templates. Adding special effects, Exporting drawings, outlining & filling objects , inserting symbols & Clip arts. Working in Corel draw presentation – adjusting the position, resizing, positioning, merging, color shading shadows. Working with advanced effects, special interactive effects. Creating – business cards, pamphlets, banners, news papers, books. Shortcut key in Corel draw.

REFERENCE & TEXT BOOKS

1. DTP- Desktop publishing by T Balaji publications.

Paper Code- DCA 105
Paper –VI

Name- Practical on Based on 102,103,104

Course Out Comes–

CO- 1. Making acquainted with evolution and history of Internet.

CO- 2. To make aware of history and function of web browser.

CO- 3. Understanding concept of hypertext, different version of HTML and building HTML documents.

UNIT – 1

Internet: Evolution, Protocols, Concept, Internet Vs Intranet, growth of Internet, ISP Connectivity, Dial-up, leased line, VSAT etc, URIs, Domain names, Portals, Application.

E-mail: Concept, POP and Web Based E-mail, merit, address basics of sending & Receiving, E-mail protocol, mailing list and free E-mail services.

UNIT – 2

File transfer Protocols, Telnet & chatting: Data Transmission Protocols, Client/ Server Architecture & its Characteristics, FTP & Its usages telnet Concept, Remote Logging, Protocols, Terminal Emulation Massage Protocol, Internet chatting – voice chat, text chat.

UNIT – 3

World Wide Web (WWW): History, Working, Web Browser, its function, Concept of Search Engine, Searching the web HTTP, URLS, Web Server, Web Protocols.

UNIT – 4

Web Publishing: Concept, Domain name Registration, space on Host Server for web site, HTML, Design tool, HTML editor, Image editor, issues in web site creation & maintenance, FTP software for upload web site.

UNIT – 5

HTML: Concept of Hypertext, Version of HTML, Element of HTTML, syntax, head & body section HTML document, Inserting Text, Image, Hyperlinks, Background and color controls, different Tables, Tables layout and presentation use of size & Attributes, List types and its tags.

REFERENCE & TEXT BOOKS

1. Modul M. 1.2 Internet & Web page Designing by Y.K. Jain, BPB Publication.
2. Internet for Dummies – Pustak Mahal, New Delhi
3. Internet & E-Commerce A. Mansoor&Anrag Seetha, Pragya Publication.

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Paper Code- DCA 106

Paper – II

Name- Internet and Webpage designing

Course Out Comes–

CO- 1. Making acquainted with evolution and history of Internet.

CO- 2. To make aware of history and function of web browser.

CO- 3. Understanding concept of hypertext, different version of HTML and building HTML documents.

UNIT – 1

Internet: Evolution, Protocols, Concept, Internet Vs Intranet, growth of Internet, ISP Connectivity, Dial-up, leased line, VSAT etc, URIs, Domain names, Portals, Application.

E-mail: Concept, POP and Web Based E-mail, merit, address basics of sending & Receiving, E-mail protocol, mailing list and free E-mail services.

UNIT – 2

File transfer Protocols, Telnet & chatting: Data Transmission Protocols, Client/ Server Architecture & its Core Objectives, FTP & Its usages telnet Concept, Remote Logging, Protocols, Terminal Emulation Massage Protocol Internet chatting – voice chat, text chat.

UNIT – 3

World Wide Web (WWW): History, Working, Web Browser, its function, Concept of Search Engine, Search on the web HTTP, URLS, Web Server, Web Protocols.

UNIT – 4

Web Making: Concept, Domain name Registration, space on Host Server for web site, HTML, Design tool, HTML editor, Image editor, issues in web site creation & maintenance, FTP software for upload web site.

UNIT – 5

HTML: Concept of Hypertext, Version of HTML, Element of HTTML, syntax, head & body section HTML document, Inserting Text, Image, Hyperlinks, Background and color controls, different HTML Tables, Tables layout and presentation use of size & Attributes, List types and its tags.

REFERENCE & TEXT BOOKS

Model Module M. 1.2 Internet & Web page Designing by Y.K. Jain, BPB Publication.

Internet for Dummies – Pustak Mahal, New Delhi

Internet & E-Commerce A. Mansoor&Anrag Seetha, Pragya Publication.

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MANGLA, BILASPUR (C.G.)

Paper Code- DCA 107
Paper – III
Name- Programming in Visual Basic

Course Out Comes–
CO- 1. Acquire confidence in Database programming with visual basic.
CO- 2. Understanding visual basic languageand components of Visual basic.
CO-3. Understanding Graphic method ,Graphic controls and Image handling in Visual basic.

UNIT – I

Integrated Development Environment of Visual Basic : Integrated Development Environment of VB, User Interface Designing, Basic of Event Driven Programming. From – designing, showing & hiding.

UNIT

Visual Basic Language: Data types, variable & Constant, arrays, dynamic array, array as function, classes, procedures, arguments passing, function return values.

Control flow statements: if – then – else, select case, looping statement: Do-loop, for-next, While-Wend, Nested Control Structure, Exit stmt.

UNIT

Building Blocks of Visual Basic: Basic Active X Control & Their Use – Textbox, list box, combo-box, slider & fire controls.

Graphic controls, Image Handling in VB, Coordinate System, Graphic method- Text Drawing, Lines & shape and grid methods.

UNIT

Components of Visual Basic: Menu editor: pull down and pop-up menus, Multiple Document interface- Form & Methods.

UNIT

Database Programming with VB: Database programming with VB – Data Control – Method, Properties, Connectivity With database.

REFERENCE & TEXT BOOKS

1. User's Guide to V.B. 6 byReetaSahoo

2. Pragya Publication

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Paper Code- DCA 108

Paper – IV

Name- DBMS Using MS Access

Cou... Out Comes—

CO- ...cquire knowledge of Database system and its characteristics.

CO- ...aking aware of MS Access, creating table in MS Access and editing a table.

CO- ...nderstanding Reports, Forms, types of basic Reports and types of basic Forms.

UN... :

Intr... ...on To Database System Purpose of Database System, View Of Data, Characteristics of Database A... . Architecture for a Database System, Advantages and Disadvantages of DBMS, Database Users a... ...istrator, Database Design and ER Model, Data Model Classification. Why use a Relational D...

U...

In... ...on to MS Access. Create a Table in MS Access Data Types, Field Properties, Fields: names, types, p... ...default values, format, caption, validation rules Data Entry, Add record, delete record and edit t... ., ...e replace, filter/select, rearrange columns, freeze columns. Edit a Tables – Copy, delete, i... ...di... table structure, find, replace.

U...

A... ...tionship, set a rule for Referential Integrity, change the join type, delete a relationship, save r... ...ueries & Filter – difference between queries and filter, filter using multiple fields, Create C... ...e, find record with select query, find duplicate record with query, find unmatched record V... ...ery, save and change query.

U...

I... ...on to Forms Types of Basic Forms: Columnar, Tabular, Datasheet, Main/ Sub-forms, add headers a... ...lds to form, add text to form use label option button, check box, combo box, list box 1... ...te Template, Navigation between forms.

U...

I... ...to Reports, Types of Basic Reports: Single Column, Tabular Report Groups/ Total, Single table r... ...le report preview report print report, Creating Report and Labels, Wizard.

...CE & TEXT BOOKS

1. ... ...omplete BPB Publication ISBN 8 1 – 7656-564-4

2. ... ... & Easy By FaitheWempen PHI

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Co··   ··t Comes—

CO-   ··ake aware of Accounting financial statement, concept of tally and its configuration.

CO-   ·.ity to create balance sheet , balance account book list cash/bank

CO-   ··erstanding printing formats, tally vault and use of tally audit.

UN··

Bas·   ··ept of Accounting Financial Statements, Financial, Statements, Analysis, Cost Centre, Basic
C···   ··entory, Tally Configuration & INI setup, Data Directory & Folder, Configuration, Single &
N···   ·or ··ly Screen Components, Mouse/ Keyboard Convention & Key, Combination switching
l··   ··en ·reas, Quitting Tally. Maintaining Company data Create/ Alter /Select/ Load/ Close a
C···   ·····   ·Account, Company Features, Configuration.

U···

C···   ··· ·· ·isplay Groups, Ledgers, All accounting voucher types and transactions, create and Alter
r··   ·· ··. Item and Account Invoice Transaction, Excise Invoice, Export Invoice, Transaction
t··   ··· ·il create, Alter & Display Cost Center and Cost Categories, Cost centre & cost Category
a··   ··· ·· ··er entry, Creating Cost centre Class, Invoice entry in a Class situation, Create, Alter &
l··   ·gn ·urrencies, Voucher entry using foreign currency Bank reconciliation. Interest calculation
u···   ·· & advance parameter, Interest calculation on outstanding balance & on invoices, Use of
v··   ··· ··stment of interest, Creation of voucher class Invoices entry in a class situation.

··

C··   ··· ·· ·lete Budgets for groups, Ledger & cost center, Defining Credit Limit & Credit period,
l··   ··· ··· ·ariances, Create Alter & Delete a scenario. Enabling Job Costing in Tally, Master
c··   ··· ··uration for job coasting, creation of voucher types & Voucher class for stock Transaction,
C··   ··· ··· ·r journal for transfer of stock between godowns, Consumption journal Transaction,
l··   ··· ··. Go down summary Report, Job Works Analysis, Material consumption summary, Report
l··   ·· s·· ·. profit & loss account Ration analysis, Trial Balance Account books Like cash/bank
l··   ··· ·· Group summary & Voucher, Sales, Purchase & Journal Registers, Cost Centre &
(··   ··· ·. cost centre breakup, ledger & group breaker, outstanding receivables & payables,
i··   ··· ·· payable, statistics, cash & fund flow, day books, list of Accounts, Reversing journals,
o··   ··   ··st-dates vouchers.

t··

(··   ··· ·· ·isplay Stock Group and Stock Item, Stock item behavior using costing and market
v··   ·· ··ther behavior like treating all sales as new manufacture, treating all purchase as
c··   ··· ··ll rejection inward as scrap, ignoring negative balances, treating difference due to
r··   ··· ·reate Alter & Display stock categories, Create, Alter, Display simple & Compound
u··   ··· ··ock item using alternate units, Defining standard cost & selling prices, Defining Rate of
c··   ·· ··P, Create, Alter & Display Godown, Allocation of item to the Godowns, All Inventory
v··   ··· ··· ··nsaction, Inventory detail in accounting voucher. Defining re-order Level, Transaction
r··   ··· ··· ·r, Use of batch –wise detail in accounting voucher. Additional coast detail in voucher,
c··   ··· ··l, Coast estimation, creation prices list & defining Prices levels, invoices using Prices
l··   ··· ··ries, Transaction in case of Different actual & billed quantities. Report Like Stocks
s··   ··· ·· books like stock item, Group summary, Stock transfer, physical stock register,
l··   ··· ·. stock group & item analysis stock category analysis, Ageing analysis, Sales order &
l··   ··· ··· ··s. Statement of inventory related to Godwons, categories, stocks query, Reorder status,

Purc... ...es order summary, Purchases & sales bill pending, exception report stocks & Ledger, overdue
rece... ...bles memorandum voucher, optional voucher, post – dated voucher, reversing journals.

UN... ...

Che... ...ng Common Printing options, Different printing formats, Multi-Account printing, Dynamic
Pep... ... options. Creating Group company, Use of Tally vault, Using security control & defining
d... ...vels, Use of Tally Audit, Backs – Up & Restore, splitting company data, Export &
I... ...C compliance, use of E-Mail, Internet publishing Upload, Web browser & Online help,
R... ...

...CE & TEXT BOOKS

...Accounting System by Ajay Sharma and Manoj Bansal, SahityaBhawan Publications.
...d Accounting system by V Mishra and PK Pandey, T Balaji Publications

Paper Code- DCA 110
Paper – VI
Name- Practical-DCA106,107,108,109

Paper Code- DCA 111
Paper – VII
Name- Project

Maharishi University of Management & Technology, Bilaspur (Chhattisgarh)

FACULTY OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY (CSIT)

Syllabus

Post Graduate Diploma in Computer Applications

2022-23

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Introduction of Program

Name of the Program - PGDCA

Aim of the Programme- PGDCA programme has been designed to prepare graduates for attaining the following specific outcomes:

- An ability to apply knowledge of mathematics, computer science and management in practice.
- An ability to enhance not only comprehensive understanding of the theory but its application too in diverse field.
- The program prepares the young professional for a range of computer applications, computer organization, techniques of Computer Networking, Software Engineering, Web development, database management and Advance Java
- Ability to design a computing system to meet desired needs within realistic constraints such as safety, security and applicability in multidisciplinary teams with positive attitude.
- Ability to communicate effectively.
- In order to enhance programming skills of the young IT professionals, the program has introduced the concept of project development in each language/technology learnt during semester.

Duration : 1 year
Evaluation
Medium of Instruction: English

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PGDCA SEMESTER – I

Paper Code	Paper No.	Name of Paper	Marks
FC-I(I)	I	Maharishi Vedic Science-I	100
GDCA 101	II	Fundamental of Computer and Information Technology	100
PCA 102	III	PC packages and Tally ERP	100
GDCA 103	IV	Programming in C++	100
PGDCA 104	V	Internet and HTML	100
CA 105	VI	Practical Work- PGDCA 102,103,104	100
Total Marks			600

PGDCA SEMESTER – II

Paper Code	Paper No.	Name of Paper	Marks
C-I(II)	I	Maharishi Vedic Science-II	100
GDCA 106	II	Data Communication and Computer Network	100
PDCA 107	III	Relational Database Management System (Oracle)	100
DCA 108	IV	System Analysis & Design	100
CA 109	V	Unix Fundamentals And Shell Programming	100
DCA 110	VI	Programming Using VB.Net	100
DCA 111	VII	Practical PGDCA108, 110 & 111.	100
CA 112	VIII	Project Work Assessment	100
Total Marks			800

minations:
ment/ Assignment: 30 marks. External evaluation: 70 marks.
ry Papers, students would be required to attempt SEVEN questions (out
rks each.

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Outcome:

- ability to use computer techniques.
- understanding the basic components of computers and terminology.
- aware of different type of computer viruses and prevention.
- ability to use computer to learn new skills and upgrade existing skills.
- frame effective mail for good communication.
- ability to use word processor, spreadsheet and presentation software for creating documents.

Specific Outcome:

of the course, candidates will be equipped with:-

- Computer and its function.
- knowledge of features of Ms Word, Ms Excel, worksheets and drafting email.
- creating and compiling C-Programs.
- ling of Internet and functions of web browser.
- knowledge of MS Access and creating, editing table in MS Access.
- knowledge of Data base programming, visual basic language, Graphic method and Image basic.
- create balance sheet, understanding of tally vault and use of tally audit.

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· Comes:
: entitled 'Maharishi Vedic Science has the following CO:
Understand structures, patterns, models / thought models and rationale of the scientific knowledge systems of the west and the Vedic.

Assimilate the Vedic worldview gleaning through the plethora of related knowledge streams.

Contrast the western and Vedic worldviews and blend their functions in different applications as required through assimilation of their variety of structures and patterns made available through their respective ontologies.

Prepare for a deep dive into Shaastras to supplement contemporary technology / lifestyle / personality solutions.

Pursue career goals (armed with a vedic worldview) in science, technology, engineering, computation, governance & administration, leadership, public service, Shaastras, environmental sciences, politics, management, entrepreneurship and so on.

: importance of Guru Pujan.
: ation, Mann, Intelligence, Chitta, Ego, Thought.

ety areas of Vedic Science and their expression in Human Physiology and ics of consciousness.
ness, types of consciousness, characteristics of higher stages of consciousness.
t on Society, Environment, Behaviour and Moral Values.

Yoga, Transcendental Meditation- a general Introduction, Types of Speech, TM
mme, Principle of Yoga Asanas and their Concept.
" Yogastha Kuru Karmani" and " Gyanam Chetanayaam Nihitam".

Maharishi Vedic Management.
elements of Vedic Management – Totality
Absolute theory of Maharishi Government.

Ayurved.
...gement and Leadership.

Books:
...Sandesh Part I and II.
...gan by His Holiness Maharishi Mahesh Yogi Ji.
...by by Brahmachari Dr.Girish Jii.

Paper Code- PGDCA 101
Paper – II
COMPUTER FUNDAMENTALS AND INFORMATION TECHNOLOGY

...se Out Comes–

. To make aware of history and development of Computers.
.. Understanding Computer organization and its process of working.
. .Understanding Input and Output devices and its function.

- I :

...ction to Computer and information technology: Brief history of development of computer
...nerations of computer. Computer system characteristics, Advantages and disadvantages
...omputer, Block diagram of computer, Types of computer - Analog, Hybrid, digital, Micro,
...Mainframe, Super computer, Personal Computer, Types of PCs desktop, Laptop,
...ook, Palmtop, etc., Number systems (Binary, Octal, Decimal, Hexadecimal), Computer
...s - ASCII, EBCDIC.

- II

...evices : Keyboard, Mouse, Monitor, Trackball, Joystick, Electronic Pen, Touch Screen,
...Scanner, MICR, OCR, OMR, Bar Code reader, Digitizer, Electronic Card Reader, Voice
...ition, Vision Input System,
...t Devices: Monitors, Printers, Plotters, Screen Image Projector, voice response system.

- III

...emory (RAM, ROM, EPROM, Cache memory).
...ary storage devices (Sequential and Direct Access Devices), Magnetic tapes, Magnetic
...tical . isk, CD-ROM, DVD

V

...: of Software (System software, Application Software, Firmware), Computer Language
...ine, Assembly, High level), Assemblers, Compliers, and Interpreter. Types of assemblers-
...ass and Double pass.

...er Network and Security: Types of network (LAN, MAN, WAN etc.), Network Models,
...uls and Architecture, Topology, OSI reference model, TCP/IP reference model. Virus
...on, type, effects, symptoms, Anti-virus program, virus prevention.

...nce Books:

...... 's of Computers by Reema Thareja, Oxford University Press
...puter ...ndamentals,6 th edition by Pradeep K.Sinha, Priti Sinha, BPB Publications
...uters Today by A.Ravichandran, Khanna Book Publishing.

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Paper - III
PC packages and Tally ERP

Out Comes—

o make aware of creating, saving, opening documents and editing documents.
Helps to use advanced feature of MS Word and checking grammar, spelling and formatting of files.
understanding Ms excel, basics of worksheet and drafting emails.

... of DOS and windows, Fundamental of DOS Booting process, POST Internal
... DOS : Directory and file commands, date, time, ver., prompt, cls. External
...ds : x-copy, disk- copy, format, attrib, tree, move, Creating and executing batch files.

User Interface, Windows as an operating system, Features of Windows, Version of
...ponents of widows desktop, Working with desktop icons, Changing the properties
...eating files and Folders in Windows, Performing file and folder operations
...aming, Opening and viewing, copying and moving, deleting,) Windows
...s (paint, calendar, calculator, notepad, Word Pad)
... word processing (MS-Word) : Advantages of word processing, Main features of
...eating, Opening and saving a word document.
...ormatting (Changing Font and font size, Applying bold, Italic and Underline,
Subscript, Superscript, Changing colour text.)
...aph formatting (Setting Indent for paragraph, Adding a paragraph border,
... the documents, Previewing a document, Inserting picture, Find, replace, Using
...rking with tables.

Spreadsheet (MS-Excel) : Definition and advantages of electronic worksheet,
...workbook and worksheets, Exploring the Ms-Excel, user interface (Title Bar,
...ize, Close buttons, Formula Bar, Worksheet, Scroll bars, Status Bar etc.),
...worksheet, saving and opening a workbook, managing worksheets in
...ning, deleting worksheet, Inserting and deleting rows and columns, Using Cut,
...ormatting Cell (font, text alignment etc.), auto calculate, auto complete, creating
...handle, Working with charts and Functions like SUM, ROUND, AVERAGE,
E, LEN, LOWER, UPPER, FIND, NOW, TODAY, ABS, INT, MOD, SQRT,
...IN.

...ower Point, Main components of power point interface (Title Bar, Minimize/
...buttons, Working Area, Scroll bars, Status Bar, Slide Pane, etc), creating
...different ways, Inserting new slide, Moving and deleting slides, saving
...serting image, shapes working with animations and transition effects, adding a
...and sound, working with tables.
...MS-Access, database objects-Tables, Queries, Forms and Reports. Creating
...fields in a table, Inserting a new field, Entering records in a table.

...pt of Accounting, Financial statements, Financial Statement Analysis, Cost Center, ...er...: of Inventory, Tally Configuration & INI Setup, data Directory & folders ...n, Single & multiple user , Tally Screen Areas, Quitting Tally, maintain Company Company Details- Create/Alter/ Select load/ Close a Company, Chart of Accounts, ...eatures, and Configuration.

... Display groups and ledgers, all accounting voucher Types, Accounting Voucher ... account invoice Transactions, Excise Invoice, Import invoices, Transaction using ...

...balance sheet, profit & loss account, ratio analysis, trial balance, accounts books ... book, All ledgers group summary & vouchers, sales, purchase & journal

... display Stock groups and stock items , all inventory vouchers types and ...ory details in accounting vouchers.
... common printing options, different printing formats etc.

...ks:
... Plain & Simple by Joli Ballew, Nancy Muir, PHI
...oft Office 2013 by Ramesh Bangia, Khanna Book Publishing.
... Tally, Nandhini K.K., BPB Publications.
... Satyapal, Khanna Book Publishers

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C⸱   ⸱ ⸱⸱omes—
C
C⸱   ⸱g aware of Program concept, its characteristics and various programming techniques.
C   ⸱op ability to understand C++-language , its standards and features.
       ⸱⸱⸱anding to create and compile C++ programs.

⸱
       ⸱ts of Object Oriented Programming : Objects, Classes, Data abstraction and Encapsulation,
       ⸱⸱, Dynamic Binding, Message Passing, Procedure Oriented vs. Object Oriented
          ⸱nefits and applications of OPP.

       ⸱ C⁺⁺ : Program features and Structure of C++ program,
       ⸱ Keywords, Identifiers, Constants, Strings, Operators
       ⸱s : Basic (Built-in) data types, User defined data types,
           ⸱⸱erator precedence,
          ⸱ s (Sequence, Selection, Loop), switch case, break, continue, arrays, pointers,
       ⸱⸱⸱ading.

       ⸱⸱ning, call by reference, return by reference, Inline functions, Default arguments,
          ⸱ string handling functions.

       ⸱ ⸱
          ⸱ing class, creating objects, accessing class members, Defining member
       ⸱⸱⸱ ⸱tors, destructors.

       ⸱⸱nce : Single inheritance, Multiple Inheritance, Hierarchical Inheritance,
          ⸱nce, Hybrid Inheritance, virtual base class,
          ⸱ ⸱ic and dynamic binding, Virtual functions, abstract class, void pointer, friend
       ⸱⸱⸱n.

⸱⸱   ⸱⸱

       Complete Reference by Herbert Schildt, TMH Publication
       ⸱ Balaguruswamy, TMH Publication
       ⸱ ⸱⸱g in C++ by Kumar, TMH Publication.

Paper Code- PGDCA 104
Paper - V
INTERNET AND HTML

mes—

acquainted with evolution and history of Internet.
aware of history and function of web browser.
ing concept of hypertext, different version of HTML and building HTML documents.

o Internet:

net, what is the internet, advantages of internet, Minimum requirements for
et protocols, Internet Tools (FTP, Gopher, E-mail, Telnet, Newsgroup, www
, Routers, Repeaters and Gateways, Modem, Types of connections - Dial up,
adband.

ab :

services of the www, web browsers, URL, types of web pages (Static &
name system, Search Engines, E-mail, Web Publishing, Principles of
design.

HTML:

nd importance of HTML, elements of HTML, Head, Title
bgcolor, link, vlink, alink, bgroperties, margin.
. title.
nents : font, heading, blockquote, line break, centre, marquee, list

box, password box, check box, radio button, combo box, select elements,

ments: code, emphasis, keyboard, strong, boldface, italics, strike and

er, cell spacing, width, height, align, bgcolor, border color, TR element, TD
, Col Element.
frameset elements.

...tak Mahal, New Delhi. ...Leon, Vikas Publishing.
...ners The Easy Way available at html.com.

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Paper Code: PGDCA 105
Paper – VI

Practical Work based on
PGDCA-102,103,104

Paper Code- FC-I (II)
Paper – I
Maharishi Vedic Science

Unit
Mah
Dep
Ayu

General Introduction to Ayurveda, Definition of Ayurveda, Tradition of Ayurveda, s of Ayurveda Samhita, Ayurveda and Health, Ashtanga Ayurveda, Purpose of Tridosha in Ayurveda.

Unit
Rou
b
U
In
S
Ma
U

tting up in the morning, defecation, teething, exercise, morning walk, bath, worship, od, earning livelihood, evening meal, sleeping etc.

to Maharishi Complete Security Policy, Principles of Security Policy, Opinions of Maharishi Complete Security Policy, Invincible Security, Defense and Mahasutra, Invincibility, Qualities of Invincibility, Basis of Defense of Invincibility.

Universal Effect of Maharishi Ji, Principle of Power in Purity, Components of y Areas of Complete Knowledge.

Physics from Veda Science, Verification of Veda Science on the basis of Physics, atics and Physiology, Latest research and development till date, Comparison of Physics etc.

esh Part I and II.
n by His Holiness Maharishi Mahesh Yogi Ji.
by BrahmachariDr. Girish Jii

Paper Code: PGDCA 106
Paper – II

DATA COMMUNICATION & COMPUTER NETWORK

Data Communication– Network models, protocols and architecture, standards line configuration, topology, transmission mode, classification of networks, OSI TCP/IP model.

digital signals, Data encoding, parallel and serial transmission, modems, media: guided media, unguided media, transmission impairment, performance, asynchronous transmission.

C, error detection and correction, flow control, HDLC, LANs- applications, ernet, 802.3 LANs, token ring, FDDI, IEEE 802.6, circuit switching, packet switching, connection oriented and connectionless services.

networking– connection– oriented, connectionless, Routing concepts, routing ce-vector routing, link state routing, shortest path routing. Congestion control, king, network devices.

requirements and attacks, public key and private key encryption and digital certificate, firewalls, IDS (Intrusion Detection System)

works– A.S. Tanenbaum. PHI

cation and networking – Behrous A. Forouzan. TMH

RELATIONAL DATABASE MANAGEMENT SYSTEM (ORACLE)

Database Management: Data, information, data independence, database ...es, DBMS architecture, different kinds of DBMS users importance of data ...ents of data dictionary, types of database languages. Data models: network, ...tional. Introduction to distributed database, client/server databases, object- ...ases, introduction to ODBC concept

...: Entity relationship model as a tool for conceptual design-entities attributes ...ER diagrams; concept of keys: candidate key, primary key, alternate key, ... and weak entities, case studies of ER modeling generalization; specialization ... Converting an ER model into relational schema. Extended ER features, ...L, Representation in UML diagram.

... nguage (SQL): Relational Algebra: select, project, cross product different ... join, outer joins, self join); set operations, tuple relational calculus, domain ... simple and complex queries using relational algebra, stand alone and ... nguages, introduction to SQL constructs (SELECT...FORM, WHERE... ... G ... ORDERBY...), INSERT, DELETE, UPDATE, VIEW definition and use, ... nested queries, and correlated nested queries, integrity constrains: Not null, ... mary key, foreign key, reference, triggers.

... esign: Normalization concept in logical model; pitfalls in database design, ... nctional dependencies join dependencies, Normal forms (INF, 2NF, 3NF). ... form, decomposition, multi-valued dependencies, 4NF, 5NF. Issues in ... cepts of indexes, file organization for relational tables, de-normalization, ... lustering indexes.

... processing and protection the database: parsing, translation, optimization, ... ew of query processing. Protecting the database integrity, security and ... straints, referential integrity, assertion, triggers, security & authorization in

... concept, H. Korth and A. Silberschatz,TMH
... ement System, C.J. Date, Narosha Publication.
... database systems – Bipin Desai, Galgotia Publication.
... Bayross (2nd edition) BPB publications.

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SYSTEM ANALYSIS AND DESIGN

ncept: characteristics, elements and types of a system, the system development
lerations, for candidate systems prototyping. The role of system analyst.

and initial investigation: Information Gathering, information gathering tools.
the tools of structured analysis (DFD, Data Dictionary, Decision tree and
ion Tables), PROS and CONS of each tool, system performance definition
ts, feasibility study. Cost/ Benefit analysis, Data analysis, Cost/ Benefit
proposal.

sign: Design methodologies, development activities, input design, output
types of forms, basics of form design layout considerations and forms

organization, objectives of database, data structure, system testing and
hy system testing, what do we test for, the test plan quality assurance,
data processing auditor, training and documentation.

oftware maintenance: conversion combating resistance to change, post
v, software maintenance, hardware/software selection and the computer
procedure for hardware/software selection, financial considerations in
r contract system security disaster recovery planning.

and design, Elias M. Awad, Galgotia Publication (P) Ltd.

nd design, International Ed. Perry Edwards, McGraw Hill Pub.

Paper Code: PGDCA109
Paper – V

UNIX FUNDAMENTALS AND SHELL PROGRAMMING

... and Architecture, Main functions of operating system.
... system: Batch, Multitasking, Multiprogramming, Multi processing, Time
...me.

... ...ure of Unix, kernel, shell, Features and Benefit of Unix.
... s (clear, main, banner, who am i)
... ands (Date, cal, sleep)
... ands 9cat, cp, mv, ls, comm, cmp. diff)
... ...ment commands (pwd, cd, mkdir, rmdir)

... Unix : Need of piping,
... ...rep
... by fields),
... more, head, tail)
...)

... ... (HOME, PATH, PSI and LONGAME)
... files (Ordinary Files, Directory Files, Device Files)
... Types of Permissions, changing file permission, changing ownership,

... ...put, output and error files, input, output and error redirection.

... ...: Simple shell scripts using expr
... o, read)
... ...erators, Relational Operators, Boolean Operators, String Operator s,

... ...If-else-elif, Test command, case-esac)
... Break & continue)

... ...x And Shell Programming by Venkateshmurthy, PEARSON INDIA
... ...amming by Archna Verma, Laxmi Publications
... ...mming by Bintu Harwani, Oxford University Press.

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Paper Code: PGDCA 110
Paper – VI

Programming Using VB .NET

T: - NET Framework features & architecture, CLR, Common Type System, and class libraries. Introduction to visual studio, Project basics, types of of VB.NET- Menu bar, Toolbar, Solution Explorer, Toolbox, Properties ner, Output Window, Object Browser. The environment: Editor tab, format king tab, visual development & event drive Programming -Methods and

ge: - Variables -Declaring variables, Data Type of variables, Forcing . Scope & lifetime of a variable, Constants, Arrays, types of array, control broutines, Functions, Passing variable Number of Argument Optional value from function. Control flow statements, conditional statement, loop Inputbox

ramming: - Classes & objects, fields Properties, Methods & Events, .. Access Specifiers, Public Private, Projected. Overloading, Friend, ing, Interfaces, Polymorphism, My Base & My class keywords. Overview WIN32 API from VB.NET & Interfacing with office 97, COM technology, COM & rol, register User Control, access com components in .net application.

: - Loading, showing and hiding forms, controlling one form within another. Windows Form: Textbox, Label, Button, Listbox, Combobox, Checkbox, n, Panel, scroll bar, Timer, ListView, TreeView, toolbar, StatusBar.There nd events. OpenFileDilog, SaveFileDialog, FontDialog, ColorDialog, . Designing menus, ContextMenu, access &shorcut keys, System.io and Writing data from and into files,File class and related er, Stream Writer , Binary Reader, Binary Writer class, File and Directory

: - Database : Connections, Data adapters, and datasets, Data Reader, with server explorer, Multiple Table Connection, Creating Command, Set with OLEDB and SQLDB. Display Data on data bound controls, id. Data binding with controls like Text Boxes, List Boxes, Data grid etc. Data Grid View, Data form wizard, Data validation, Connection Objects,

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LA, BILASPUR (C.G.)

Data Adapters, Dataset Class, Overview of ADO, from ADO to ADO.NET, ng Crystal Report Viewer. Crystal Report : Connection to Database, ng, Report, Modifying Report, Formatting Fields and Object, Header, p Header, Group footer, Working with formula fields, Parameter fields, Working with Multiple Tables, SQL in Crystal Report, Report Templates.

ng Black Book by Steven Holzner – Dreamtech Publications.
Evangelos Pet Routsos- BPB publications.
amework-Worx Publication.

Paper Code: PGDCA 111
Paper – VII

Practical Work based on 107,109,110

Paper Code: PGDCA-112
Paper – VIII

Project Work

Maharishi University of Management & Technology, Bilaspur (Chhattisgarh)

FACULTY OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY (CSIT)

"Diploma in Multimedia & Animation"

SYLLABUS 2022-23

Syllabus

DMA SEMESTER – I

S.No	Paper Code	Paper No.	Name of the Paper	Max.Marks
01	DMA-101	I	Working with Graphics-I	100
02	DMA-102	II	Audio-Video-I	100
03	DMA-103	III	Working with Graphics-II	100
04	DMA-104	IV	Maharishi Vedic Science-I	100
05	DMA-105	V	Working with Graphics I & II(Practical)Lab-1	100
06	DMA-106	VI	Audio-Video Editing(Practical)Lab-2	100

DMA SEMESTER – II

S.No	Paper Code	Paper No.	Name of the Paper	Max.Marks
01	DMA-107	I	Animation Concept-I	100
02	DMA-108	II	Audio-Video-II	100
03	DMA-109	III	Animation Concept-II	100
04	DMA-110	IV	Maharishi Vedic Science-II	100
05	DMA-111	V	Animation Concept-I & II(Practical)Lab-3	100
06	DMA-112	VI	Audio-Video Editing(Practical)Lab-4	100

DMA-SEMESTER-I

Title of the Subject: Working with Graphics-I

Subject Code: DMA-101

Paper: I

Max Marks: 70

Min Marks: 28

Working with Graphics-I

Unit-1. Graphics Fundamental

Unit-2. Concept of Raster Graphics

Unit-3. Raster Graphics Application

Unit-4. Color Theory and Typography

Unit-5. Uses of Graphics in Print and Electronics

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Title of the Subject: Audio-Video Editing-I

Subject Code: DMA-102

Paper: II

Max Marks: 70
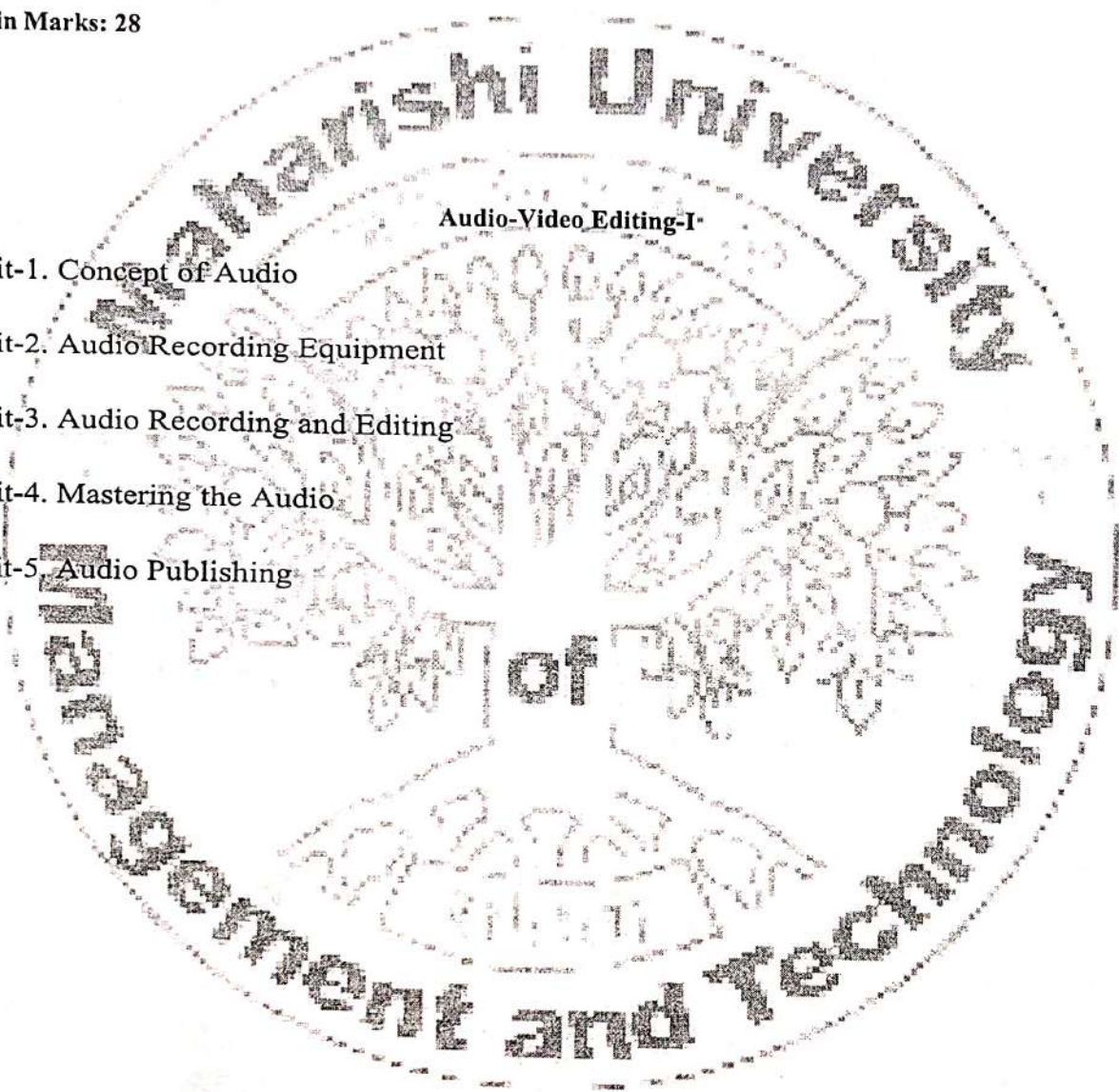
Min Marks: 28

Audio-Video Editing-I

Unit-1. Concept of Audio

Unit-2. Audio Recording Equipment

Unit-3. Audio Recording and Editing

Unit-4. Mastering the Audio

Unit-5. Audio Publishing

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Title of the Subject: Working with Graphics- II

Subject Code: DMA-103

Paper: III

Max Marks: 70

Min Marks: 28

Working with Graphics-II

Unit-1. Vector Design concept

Unit-2. UI and UX

Unit-3. Navigation and Layout Designing

Unit-4. Concept of Graphic Composition

Unit-5. Importance of Vector Design

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Title of the Subject: Maharishi Vedic Science

Subject Code: DMA-104

Paper:IV

Max Marks: 70

Min Marks: 28

Maharishi Vedic Science-I

UNIT – 1

Meaning & importance of Guru Pujan. Meaning of meditation, Mann, Intelligence, Chitta, Ego, Thought.

UNIT – 2

Name of forty areas of Vedic Science and their expression in Human Physiology and characteristics of consciousness. Consciousness, types of consciousness, characteristics of higher stages of consciousness. Maharishiji's effect on Society, Environment, Behaviour and Moral Values.

UNIT – 3

Maharishi's Yoga, Transcendental Meditation- a general Introduction, Types of Speech, TM Sidhi Programme, Principle of Yoga Asanas and their Concept. Meaning of "Yogastha Kuru Karmani" and " Gyanam Chetanayaam Nihitam".

UNIT – 4

Introduction : Maharishi Vedic Management. Fundamental elements of Vedic Management – Totality Introduction to Absolute theory of Maharishi Government.

UNIT – 5

Theory of Ayurved. Vedic Management and Leadership.

Reference Books:

1. Maharishi Sandesh Part I and II.
2. Chetna Vigyan by His Holiness Maharishi Mahesh Yogi Ji.
3. Dhyan Shailey by Brahmachari Dr.Girish Jii.

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Title of the Subject: Working with Graphics I & II (Practical)-LAB-1

Subject Code: DMA-105

Paper: V

Max Marks: 100

Min Marks: 50

(Lab Work)

Title of the Subject: Audio-Video Editing (Practical)-LAB-2

Subject Code: DMA-106

Paper: VI

Max Marks: 100

Min Marks: 50

(Lab Work)

DMA-SEMESTER-II

Title of the Subject: Animation Concept-I

Subject Code: DMA-107

Paper: I

Max Marks: 70

Min Marks: 28

Animation Concept-I

1. Concept of Digital Animation
2. Principle of Animation
3. Motion Tween
4. Animation with Audio
5. Export and Publishing

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Title of the Subject: Audio-Video Editing-II

Subject Code: DMA-108

Paper: II

Max Marks: 70

Min Marks: 28

Audio-Video Editing-II

Unit-1. Concept of Video Editing

Unit-2. Video Editing Equipment

Unit-3. Cut , Copy , Paste and sequencing

Unit-4. Transition and Effect

Unit-5. Video Publishing

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Title of the Subject: Animation Concept-II

Subject Code: DMA109

Paper: III

Max Marks: 70

Min Marks: 28

Animation Concept-II

Unit-1. Action Script introduction

Unit-2. Coding and Language

Unit-3. Action script Syntax

Unit-4. Introduction with AS 3

Unit-5. Publishing

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Title of the Subject: Maharishi Vedic Science-II

Subject Code: DMA110

Paper: IV

Max Marks: 70

Min Marks: 28

Maharishi Vedic Science-II

UNIT – 1

Meaning & importance of Guru Pujan. Meaning of meditation, Mann, Intelligence, Chitta, Ego, Thought.

UNIT - 2

Name of forty areas of Vedic Science and their expression in Human Physiology and characteristics of consciousness. Consciousness, types of consciousness, characteristics of higher stages of consciousness. Maharishiji's effect on Society, Environment, Behaviour and Moral Values.

UNIT – 3

Maharishi's Yoga, Transcendental Meditation- a general Introduction, Types of Speech, TM Sidhi Programme, Principle of Yoga Asanas and their Concept. Meaning of " Yogastha Kuru Karmani" and " Gyanam Chetanayaam Nihitam".

UNIT – 4

Introduction : Maharishi Vedic Management. Fundamental elements of Vedic Management – Totality Introduction to Absolute theory of Maharishi Government.

UNIT – 5

Theory of Ayurved. Vedic Management and Leadership

Reference Books:

4. Maharishi Sandesh Part I and II.
5. Chetna Vigyan by His Holiness Maharishi Mahesh Yogi Ji.
6. Dhyan Shailey by Brahmachari Dr.Girish Jii.

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Title of the Subject: V

Subject Code: DMA111

Paper: Animation Concept –I & II (Practical) LAB-3

Max Marks: 100

Min Marks: 50

(Lab Work)

Title of the Subject: Audio-Video Editing (Practical)-LAB-4

Subject Code: DMA112

Paper: VI

Max Marks: 100

Min Marks: 50

(Lab Work)

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Maharishi University of Management & Technology, Bilaspur (Chhattisgarh)

DEPARTMENT OF COMPUTER SCIENCE & INFORMATION TECHNOLOGY (CSIT)

SYLLABUS

(B.C.A)

2022-2023

MAHARISHI UNIVERSITY OF MANAGEMENT & TECHNOLOGY, MANGLA, BILASPUR (C.G.)
Syllabus: BCA Session 2022-23

S.No.	Paper Code	Paper No.	Name of the Paper	Marks
Semester – I				
1.	FC-I(I)	I	Maharishi Vedic Science-I	100
2.	FC-II(I)	II	Foundation English-1	100
3.	BCA101	III	Computer Fundamental	100
4.	BCA102	IV	Discrete Mathematics	100
5.	BCA103	V	PC Software Package	100
6.	BCA104	LAB I	Practical Computer Fundamental	100
7.	BCA105	LAB II	Practical Pc software	100
Semester – II				
8.	FC-I(II)	I	Maharishi Vedic Science (P)	100
9.	FC-II(II)	II	Foundation English-2	100
10.	BCA106	III	Programming Methodology and C Programming	
11.	BCA107	IV	Operating System	100
12.	BCA108	V	Concept of Software	100
13.	BCA109	LAB I	Lab of Programming in "C"	100
14.	BCA110	LAB II	Lab of Software Packages	100
Semester – III				
15.	FC-III(I)	I	Foundation Hindi-I	100
16.	FC-IV(I)	II	Foundation Environment-I	100
17.	BCA111	III	Digital Electronics and Microprocessor	100
18.	BCA112	IV	Computer Networks	100
19.	BCA113	V	Data Structure	100
20.	BCA114	VI	Basic Mathematics (Bridge Course)	100
Semester – IV				
21.	FC-III(II)	I	Foundation Hindi-II	100
22.	FC-IV(II)	II	Foundation Environment-I	100
23.	BCA115	III	Object Oriented Programming Using C++]	100
24.	BCA116	IV	Computer Graphics and Multimedia	100
25	BCA117	V	Computer Organization and Architecture]	100
26	BCA118	LAB I	Programming Lab Using C++]	100
27	BCA119	LAB II	Multimedia Lab	100
Semester – V				
28	BCA120	I	Numerical Analysis	100
29.	BCA121	II	Software Engineering and Project Management	100
30.	BCA122	III	Database Design and RDBMS	100
31.	BCA123	IV	Introduction to AI and Expert System	100
Semester – VI				
32.	BCA124	I	Net Technology	100
33.	BCA125	II	Data Mining and Warehousing	100
34	BCA126	III	Current Trends and Technology in Computer Science	100
35	BCA127	LAB I	Practical based on .NET Technology	100
36.	BCA128	PROJ	Project: Major Project	100

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