DETAILED SYLLABUS

FOR DISTANCE EDUCATION

Diploma
(One Year Semester Scheme)

Diploma in Information Technology
(DIT)

COURSE TITLE **: DIPLOMA IN INFORMATION TECHNOLOGY**

DURATION **: 1 YEAR (SEMESTER SYSTEM)**

TOTAL MARKS **: 1000**

FIRST SEMESTER

COURSE TITLE	PAPER CODE	MARKS		
		THEORY	PRACTICAL	TOTAL
INTRODUCTION TO INFORMATION TECHNOLOGY	DIT-110	100	00	100
COMPUTER PROGRTAMMING USING "C"	DIT-120	100	00	100
PC SOFTWARE	DIT-130	100	00	100
LAB (PROGRAMMING IN C)	DIT-140P	00	100	100
LAB (PC SOFTWARE)	DIT-150 P	00	100	100

SECOND SEMESTER

COURSE TITLE	PAPER CODE	MARKS		
		THEORY	PRACTICAL	TOTAL
MICROSOFT ACCESS	DIT-210	100	00	100
DESKTOP PUBLISHING TOOLS	DIT-220	100	00	100
WEB PROGRAMMING	DIT-230	100	00	100
LAB (MICROSOFT ACCESS)	DIT-240 P	00	100	100
LAB (DTP AND WEB PROGRAMMING)	DIT-250 P	00	100	100

Note:

Theory Paper :	**30%** Continuous Internal Assessment and **70%** University examination.
Practical Paper :	**30%** Continuous Internal Assessment and **70%** University examination

Continuous Internal Assessment:

1) Two or three tests out of which minimum two will be considered for Assessment **60% of Continuous Internal Assessment**

2) Seminars/Assignments/Quizzes **30% of Continuous Internal Assessment**

3) Attendance, class participation and behavior **10% of Continuous Internal Assessment**

DIT-110   INTRODUCTION TO INFORMATION TECHNOLOGY

Maximum Time   : 3 Hrs.   University Examination   : 70 Marks
Total Marks   : 100   Continuous Internal Assessment : 30 Marks
Minimum Pass Marks : 40%

A) Instructions for paper-setter
The question paper will consist of five sections A, B, C and D. Sections A, B and C will have two questions from the respective sections of the syllabus and will carry 15% marks each. Section D will have 10-20 short answer type questions which will cover the entire syllabus uniformly and will carry 40% marks in all.

B) Instructions for candidates
1. Candidates are required to attempt one question each from sections A, B and C of the question paper and the entire section D.
2. Use of non-programmable scientific calculator is allowed.

SECTION A
Definition of Information Technology, Use of IT, Definition of information system, need of information system, definition of knowledge, Range of application : Scientific, business, educational, weather forecasting, and remote sensing, planning, e-commerce, web publishing, Management Information System, Decision Support System, inventory control, medical, industrial control, banks, railways, etc.

SECTION B
Computer Fundamentals: Block structure of computer, Characteristics of computers, Problem solving with computers, Generation of computers, Classification of computers.
Number System: Bit, Byte, Binary, Decimal, Hexadecimal, and Octal system, Conversion from one system to the other, Error detecting codes, Representation of characters, Integers and fractions.
Binary Arithmetic: Addition, Subtraction and Multiplication.

SECTION C

Input and Output units: Their functional characteristics, main memory , cache memory read only memory, overview of storage devices – floppy disk, hard disk, compact disk, tape.
Computer Networks and Communication: Network types, Network topologies, Network communication devices, Physical communication media, TCP/IP.
Internet and its Applications : E-mail, Telnet, FTP, WWW, Internet chatting.

Reference:
1. D.H.Sanders, "Computers Today", McGraw Hill, 1988.
2. T.N. Trainer, "Computers" (4th Edition) McGraw Hill, 1994.
3. Kenneth C.Laudon, Jane P. Laudon "Management Information System"(7th Edition),
4. V. Rajaraman, "Fundamentals of Computers" (2nd Edition), Prentice Hall of India, New Delhi, 1996.
5. B. Ram, "Computer Fundamentals", Wiley, 1997.

DIT-120   **COMPUTER PROGRTAMMING USING "C"**

Maximum Time   **: 3 Hrs.** **University Examination**   **: 70 Marks**
Total Marks   **: 100**   **Continuous Internal Assessment : 30 Marks**
Minimum Pass Marks : 40%

A) Instructions for paper-setter
The question paper will consist of five sections A, B, C and D. Sections A, B and C will have two questions from the respective sections of the syllabus and will carry 15% marks each. Section D will have 10-20 short answer type questions which will cover the entire syllabus uniformly and will carry 40% marks in all.

B) Instructions for candidates
1. Candidates are required to attempt one question each from sections A, B and C of the question paper and the entire section D.
2. Use of non-programmable scientific calculator is allowed.

SECTION A

Data types, constants, Variables, Arithmetic and logical expressions, Data input and output, Assignment statements, Conditional statements.

SECTION B

Iteration, Arrays, String processing, User-defined data types, functions, recursion, Parameter passing by reference & by value.

SECTION C

Structures, Multiple Structure, Array of Structure, Unions, Pointers, Character pointers, Pointers to arrays, Array of pointers, Pointers to structures.

Reference:
1. Rajarman V., "Fundamentals of Computers" (PHI, 1992)
2. D.Dromey "How to solve it by Computer", Prentice-Hall, 1985
3. E. Balaguruswami "Programming in C" Tata McGraw Hill.
4. Kanetkar, "Let Us C" BPB Publications.

DIT-130   **PC SOFTWARE PAC KAGES**

Maximum Time   : 3 Hrs.   University Examination   : 70 Marks
Total Marks   : 100   Continuous Internal Assessment : 30 Marks
Minimum Pass Marks : 40%

A) Instructions for paper-setter
The question paper will consist of five sections A, B, C and D. Sections A, B and C will have two questions from the respective sections of the syllabus and will carry 15% marks each. Section D will have 10-20 short answer type questions which will cover the entire syllabus uniformly and will carry 40% marks in all.

B) Instructions for candidates
1. Candidates are required to attempt one question each from sections A, B and C of the question paper and the entire section D.
2. Use of non-programmable scientific calculator is allowed.

SECTION A
MS Word Basics: Introduction to MS Office; Introduction to MSWord; Features & area of use. Working with MS Word.; Menus &Commands; Toolbars & Buttons; Shortcut Menus, Wizards &Templates; Creating a New Document; Different Page Views and layouts; Applying various Text Enhancements; Working with – Styles, Text Attributes; Paragraph and Page Formatting; Text Editing using various features ; Bullets, Numbering, Auto formatting, Printing &various print options, Spell Check, Thesaurus, Find &Replace; Headers & Footers ; Inserting – Page Numbers, Pictures, Files, Auto texts, Symbols etc.; Working with Columns, Tabs & Indents; Creation & Working with Tables including conversion to and from text; Margins & Space management in Document; Adding References and Graphics; Mail Merge, Envelops & Mailing Labels.

SECTION B
MS Excel: Introduction and area of use; Working with MS Excel; concepts of Workbook & Worksheets; Using Wizards; Various Data Types; Using different features with Data, Cell and Texts; Inserting, Removing & Resizing of Columns & Rows; Working with Data &Ranges; Different Views of Worksheets; Column Freezing, Labels, Hiding, Splitting etc.; Use of different features with Data and Text; Use of Formulas, Calculations & Functions; Cell Formatting including Borders & Shading; Working with Different Chart Types; Printing of Workbook & Worksheets with various options.

SECTION C
MS PowerPoint: Introduction & area of use: Working with MS Power Point; Creating a New Presentation; Working with Presentation; Using Wizards; Slides & its different views; Inserting, Deleting and Copying of Slides; Working with Notes, Handouts, Columns & Lists: Adding Graphics, Sounds and Movies to a Slide; Working with PowerPoint Objects: Designing & Presentation of a Slide Show; Printing Presentations, Notes, Handouts with print options.

Reference:
1. "Windows XP Complete Reference", BPB Publications.

2. "MS Office XP Complete Reference", BPB Publications.
3. "MS Windows XP Home Edition Complete Reference", BPB Publications.
4. Mansoor, "I.T. Tools and Applications", Pragya Publications.

DIT-140 P   SOFTWARE LAB (COMPUTER PROGRAMMING USIING "C")

Maximum Time   : 3 Hrs.   University Examination   : 70 Marks
Total Marks   : 100   Continuous Internal Assessment : 30 Marks
Minimum Pass Marks : 40%

This Laboratory Course will mainly comprise of exercises on what is learnt under paper DIT -120 (COMPUTER PROGRAMMING USING "C").
.

DIT-150 P   SOFTWARE LAB (PC SOFTWARE)

Maximum Time   : 3 Hrs.   University Examination   : 70 Marks
Total Marks   : 100   Continuous Internal Assessment : 30 Marks
Minimum Pass Marks : 40%

This Laboratory Course will mainly comprise of exercises on what is learnt under paper DIT -130 (PC SOFTWARE).

SECOND SEMESTER

DIT-210   **MICROSOFT ACCESS**

Maximum Time   : 3 Hrs.   University Examination   : 70 Marks
Total Marks   : 100   Continuous Internal Assessment : 30 Marks
Minimum Pass Marks : 40%

A) Instructions for paper-setter
The question paper will consist of five sections A, B, C and D. Sections A, B and C will have two questions from the respective sections of the syllabus and will carry 15% marks each. Section D will have 10-20 short answer type questions which will cover the entire syllabus uniformly and will carry 40% marks in all.

B) Instructions for candidates
1. Candidates are required to attempt one question each from sections A, B and C of the question paper and the entire section D.
2. Use of non-programmable scientific calculator is allowed.

SECTION A
Introduction to Databases, DBMS and RDBMS : Introduction, Information, Quality of Information, Information Processing, Characteristics of Data in a Database, What is a Database Management System (DBMS)?, Need for DBMS, Types of DBMS, Relational Database Management Systems (RDBMS), RDBMS Terminology, Relational Data Structure, Relational Data Integrity, Conclusion, Review Questions.

SECTION B
Access 2000 Basics : Introduction, Starting Access 2000, Access Startup Dialog Box, Menus and Toolbars, Using Toolbar Buttons, Arranging Buttons on the Toolbar, Viewing Data, Creating an Access 2000 Database and Tables, Database Properties, Modifying Tables, Creating Forms, Entering and Updating Data Using Forms, Navigating between Records in a Form, Finding, Editing and Deleting Data in a Form, Using Access 2000 Help, Using Answer Wizard, Using the Contents Tab to Get Help, Using the Index Tab to get Help, Exercises.

SECTION C
Report and Queries : Introduction, Sorting and Filtering Records, Creating and Printing Reports, Creating and Using Queries.
Introduction to Structured Query Language (SQL) : Introduction, Characteristics of SQL, Advantages of SQL, Types of SQL Tables, Create Table, NULLS, Data Manipulation, Update Operations, SQL in Access.

References:
1. Bipin C. Desai, "An Introduction to Data Base Systems", Galgotia Publication.
2. Robert Sheldon, "Microsoft Office Access 2003" McGraw Hill.

DIT-220　　　　　　　　**DESKTOP PUBLISHING TOOLS**

Maximum Time　　　**: 3 Hrs.**　**University Examination**　　　**: 70 Marks**
Total Marks　　　　**: 100**　　**Continuous Internal Assessment : 30 Marks**
Minimum Pass Marks : 40%

A) Instructions for paper-setter
The question paper will consist of five sections A, B, C and D. Sections A, B and C will have two questions from the respective sections of the syllabus and will carry 15% marks each. Section D will have 10-20 short answer type questions which will cover the entire syllabus uniformly and will carry 40% marks in all.

B) Instructions for candidates
1. Candidates are required to attempt one question each from sections A, B and C of the question paper and the entire section D.
2. Use of non-programmable scientific calculator is allowed.

SECTION A
CoralDRAW Basics: Interface; Title Bar; Menu Bar; Tool Box; Drawing Window; Drawing Page; Property Bar; Standard Toolbar.
Basic Drawing : Introduction; Working with Lines; Rectangles and Squares; Ellipses and Circles; Selection Techniques; Using Rulers; Using Grids and Guidelines; Defining Grids; Snap to Grid; Spirals and Graphs.
The Artistic Media Tool : Introduction; Using Preset Tool.
Working with Text : Creating Artistic Text in Paragraphs; Creating Paragraph Text; The Text Property Bar; Using Effects; Using Edit Text Feature;
The Outline Tool: Using the Outline Pen Dialog Box; Setting Outline; Outline Styles; Applying Calligraphic Outlines; Setting Outline Options with the Property Bar.
The Fill Tool: Introduction; Using Uniform Fills; Using Fountain Fills; Using Texture Fills; Working with Images : Introduction; Image Formats; Importing Images; Using the Scrapbook; Bitmap Images; Cropping Bitmaps; Color Masking; Resizing & Rotating/Skewing Images; Exporting Images.
Page Layout: Introduction; Layout Styles; Inserting Pages; Specifying Background Color; Hiding the Page Border.
Printing and Publishing : Introduction; Selecting a Printer; Using Layout Styles when Printing; Tiling a Print Job; Using Print Style; Print to File.

SECTION B
ADOBE PHOTOSHOP Basics: New Page; The Toolbox, Tool Options Bar.
Selection Modes: The Selection Tools, The Selection Menu Cropping.
Transformations: Resizing, Flipping; Selection Transformations.
Color Modes and Color Models: Color Models; The Modes and Models of Color.
Paintbrushes and Art Tools: The Brushes Palette, Brushes.
Digital Painting: Foreground and Background Colors; Selecting Colors, The Blending Modes.
Moving Paint: The Smudges; Focus Tools, The Toning Tools.
Advanced Painting Techniques: Simulating Different Media. Layers : Using the Layer Palette. Working with Multiple Layers. Using Masks : Applying Masks, Using Quick Masks, Layer Masks.
Paths: Creating Paths, Editing Paths, Using Paths.

SECTION C

Filters that Improve Your Picture: Sharpen Filters, Blur Filter; Fading Filters.
Filters to Make Your Picture Artistic : Artistic Filters; Brush Strokes, Sketch Filters.
Creating Bevel and Emboss Effects; Warping Text; Checking your Spelling.
Special Effects and Useful Tricks: Glows; Lighting Effects; Reflections; Extracting Selections; Notepad; Contact Sheets and Picture Packages; Working Efficiently.
Photoshop Plug-Ins and Add-On: Where to get plug-Ins; How to Install Plug-Ins; Alien Skin's Eye Candy; Genuine Fractals; Andromeda.
Photo Repair – Color: Color Retouching, Removing.

Reference:

1. Joshua Mostafa, "Desktop Publishing", DORLING KI Publications.
2. "Pesktop Publishing", FIREWALL MEDIA Publications.
3. Lumgair Christopher, "Teach Yourself Desktop Publishing" McGraw Hill Publications.

DIT-230　　　　　**WEB PROGRAMMING**

Maximum Time	**: 3 Hrs.**	**University Examination**	**: 70 Marks**
Total Marks	**: 100**	**Continuous Internal Assessment : 30 Marks**	
Minimum Pass Marks : 40%			

A) Instructions for paper-setter
The question paper will consist of five sections A, B, C and D. Sections A, B and C will have two questions from the respective sections of the syllabus and will carry 15% marks each. Section D will have 10-20 short answer type questions which will cover the entire syllabus uniformly and will carry 40% marks in all.

B) Instructions for candidates
1. Candidates are required to attempt one question each from sections A, B and C of the question paper and the entire section D.
2. Use of non-programmable scientific calculator is allowed.

SECTION A

INTRODUCTION TO THE INTERNET :- Computers in Business; Networking; Internet; Electronic Mail (E-Mail); Resource Sharing; Gopher; World Wide Web; Usenet; Telnet; Bulletin Board Service; Wide Area Information Service.
INTERNET TECHNOLOGIES :- Modem; Internet Addressing; Physical Connections; Telephone Lines.

SECTION B
INTERNET BROWSERS :- Internet Explorer; Netscape Navigator.
INTRODUCTION TO HTML :- Designing a Home Page; History of HTML; HTML Generations; HTML Documents; Anchor Tag; Hyper Links.
HEAD AND BODY SECTIONS :- Header Section; Title; Prologue; Links; Colorful Web Page; Comment Lines.
DESIGNING THE BODY SECTION :- Heading Printing; Aligning the Headings; Horizontal Rule; Paragraph; Tab Setting; Images and Pictures; Embedding PNG Format Images.
ORDERED AND UNORDERED LISTS :- Lists; Unordered Lists; Headings in a List; Ordered Lists; Nested Lists.
TABLE HANDLING :- Tables; Table Creation in HTML; Width of the Table and Cells; Cells Spanning Multiple Rows/Columns; Coloring Cells; Column Specification.

SECTION C
DHTML AND STYLE SHEETS :- Defining Styles; Elements of Style; Linking a Style Sheet to an HTML Document; In-line Styles; External Style Sheets; Internal Style Sheets; Multiple Styles.
FRAMES :- Frameset Definition; Frame Definition; Nested Framesets.
Forms :- Action Attribute; Method Attribute; Enctype Attribute; Drop Down List.

Reference:
1. A. Mansoor, "Internet and Web Design Made Easier", Pragya Publications.

2. V.K.Jain, "level Module - M 1.2 - Internet & web page designing" BPB Publications.
3. P.T. Joseph, S.J., "E-Commerce An Indian Perspective (Second Edition)", Prentice Hall of India
4. Alexis Leon and Mathews Leon, "Internet for Everyone", Vikas Publishing House Pvt. Ltd., New Delhi.
5. "Internet for Dummies', Pustak Mahal, New Delhi.

DIT-240 P   **SOFTWARE LAB (MICROSOFT ACCESS)**

Maximum Time   **: 3 Hrs.**   **University Examination**   **: 70 Marks**
Total Marks   **: 100**   **Continuous Internal Assessment : 30 Marks**
Minimum Pass Marks : 40%

This Laboratory Course will mainly comprise of exercises on what is learnt under paper DIT -210 (MICROSOFT ACCESS).

DIT-250 P   **SOFTWARE LAB (DTP AND WEB PROGRAMMING)**

Maximum Time   **: 3 Hrs.**   **University Examination**   **: 70 Marks**
Total Marks   **: 100**   **Continuous Internal Assessment : 30 Marks**
Minimum Pass Marks : 40%

This Laboratory Course will mainly comprise of exercises on what is learnt under paper DIT -220 & DIT -230 (DTP AND WEB PROGRAMMING).