

1. Introduction

The objectives of Vocational Education System in the context of fulfillment of national goal are to train the students for employment in the growing sectors of economy both organized and unorganized, to provide an alternative channel for higher education and to prepare students for self-reliance and gainful employment. There has been a great improvement in the demand for computer professionals during the past few years. To cater to certain computer oriented requirements of the business sector the Computer science course syllabus has been drafted.

2. Course Objectives

- ✓ To develop professional competence in the use of computers and related hardware equipment programming skills and DTP techniques.
- ✓ To train the students to acquire skills and mastery in the use and development of different software.
- ✓ To prepare for self and wage employment.

3. Skills

- * Skills to operate different hardware devices.
- * Skills in maintenance procedures.
- * Skills in configuring the system software and installation procedures.
- * Skills in using specific packages and Languages.
- * Skills in programming techniques and data processing.

4. Job Opportunities

(a) Wage Employment:

- ✓ Junior Programmer
- ✓ Computer operator
- ✓ Computer Instructor
- ✓ Software marketing personal
- ✓ Computerized Accounts Assistant

(b) Self Employment:

- ✓ DTP operator.
- ✓ Internet and E-mail center maintenance
- ✓ Maintaining and establishment of small networks

**5. Annual Scheme of Instruction and Examination for
Vocational Courses 1st & 2nd Year**

Part - A	Theory		Practicals		Total	
	Periods	Marks	Periods	Marks	Periods	Marks
1. English	185	75	-	-	185	75
2. G.F.C.	185	75	-	-	185	75
Part - B						
3. Vocational Subjects						
Paper - I	160	50	160	50	320	100
Paper - II	160	50	160	50	320	100
Paper - III	160	50	160	50	320	100
Part - C						
4. On the Job Training -		-	210	50	210	50
Total	850	300	690	200	1540	500

Scheme of Instruction per week for Vocational Courses

Part - A	Theory	Practicals	Total
1. English	6	-	6
2. G.F.C.	6	-	6
Part - B			
3. Vocational subjects			
Paper - I	5	5	10
Paper - II	5	5	10
Paper - III	5	5	10

V. Syllabus
I Year (Theory)

Paper 1 : Computer Fundamentals and Programming in 'C'

Unit/Chapter	No of Periods
I	30
II	10
III	30
IV	30
V	30
VI	30
Total	160

1. Introduction to Computer systems and Hardware

- * Introduction to Computers, generations of computer
- * Classification of Computers based on Purpose, Operation & Size
- * Anatomy of Computers
- * Number Systems
- * Basic I/O Devices
- * Block Diagram of CPU
- * Memory units- Primary and Auxiliary memory
- * Operating Systems
- * Programming Languages, general software features and trends.
- * Utilities

2. Introduction to Problem Solving Techniques

- * Procedure and Algorithms
- * Flowcharts
- * Pseudocode

3. Features of 'C'

- * Introduction to 'C'
- * Structure of a 'C' Program
- * Data types in 'C' – Constants & Variables- operators and Expressions

- * Statements – data definition- assignment-
- * I/O control structure (if, if-else, for, while, do-while)
- * Structure for looping and nested looping
- * Branching (switch, break, continue)
- * Unconditional branching (go to statement) simple programs covering above topics

4. Functions

- * What is a function
- * Difference between a function and a procedure
- * Advantages of functions
- * User defined and library functions, main function
- * Return types.
- * Concepts associated with functions – Recursion, scope of a function, extent of a variable

5. Structured data processing in 'C'

- * Array as Data structure- defining single and multi dimensional arrays, simple operations on arrays, simple programs on arrays.
- * String as Data Structure: Defining Strings, Simple operations on Strings- String processing functions like strlen(), strcpy(), strcmp() ,etc

6. Data structured as Records

- * Structures and unions:- declaration – operation on structures, array of structures, array with structures, structure as data types

Reference Books:

1. Let us C by Yashwant Kanetkar
2. Computers and Common sense by Roger Hunt & P.B. Shelley
3. Introduction to Computers by Rajaraman

Paper 2 : P. C. Software Tools

Unit/Chapter	No of Periods
I	30
II	30
III	40
IV	30
V	30
VI	30
Total	160

1. Overview of Operating Systems

- * DOS
- * Working with DOS Commands
- * Configuring DOS and Batch files
- * Windows
- * Basics
- * Accessories
- * File Manager and Program Manager

2. MS-Word

- * Introduction to Word Processing
- * Editing a Document
- * Move and Copy Text and Help System
- * Formatting Text and Paragraph
- * Finding and Replacing Text and Spell Checking
- * Using Tabs
- * Enhancing Document
- * Columns, Tables and Other Features
- * Using Graphics, Templates and Wizards
- * Using Mail Merge
- * Miscellaneous features of Word

3. MS-Excel

- * Introduction to Spreadsheet
- * Creating Worksheets & feeding data

- * Using functions
- * Editing Cells and Using commands and functions
- * Moving and Copying, Inserting and Deleting Rows and Columns
- * Formatting a Worksheet
- * Opening, Saving and Printing a Worksheet
- * Working with Charts
- * Working with Macros

4. MS-PowerPoint

- * Creating Presentations using AutoContent Wizard, Template & Blank Presentation
- * Working with Master's Slide, Title handout and Notes
- * Viewing a Presentation
- * Drawing Objects & Inserting OLE
- * Drawing freeform shapes
- * Rotating Objects

5. MS-Access

- * Creating Database
- * Creating Tables, Forms and Queries

Reference Books:

1. PC Software for Windows made simple by R K Taxali
— *Tata McGraw Hill*
2. Fundamentals of MS-Office
— *BPB Publication*

Paper 3 : Fundamentals of Accountancy & Book Keeping

Unit/Chapter	No of Periods
I	30
I	05
II	10
III	10
IV	10
V	20
VI	30
VII	20
VIII	10
IX	30
X	15
Total	160

Unit I:

Introduction:

Book keeping Vs Accountancy- uses of Accountancy- Accounting concepts- Accounting conventions- Accounting terminology.

Unit II:

Double Entry System:

Meaning theory of double entry system- Classification of Accounts- Advantages of double entry system

Unit III:

Journal:

Introduction- generalizing of different transactions- Advantages of journal

Unit IV:

Ledger:

Meaning- Ledger posting- system of balancing accounts- advantages of ledger

Unit V:

Subsidiary Books:

Meaning and significance- different type of books – purchase books – sales book – purchase return book- sales returns – bills receive books, bills payable book treatment of trade discount.

Unit VI:

Cash book:

Meaning and significance- features – kinds of cash books- single cash book cash book with cash and discount- cash book with cash – discount and bank- cash book with cash and bank and discount columns- analytical petty cash books.

Unit VII:

Journal Proper:

Meaning and significance- pass book- need for reconciliation- cause of difference – errors and disclosed and not disclosed by trial balance rectification of errors suspense account.

Unit VIII:

Trial Balance and Rectification

Meaning and significance- features and objectives- preparation of trial balance- errors disclosed by trial balance rectification of suspense account.

Unit IX:

Final Account:

- (a) Trading Account: Meaning and significance: performance of trading account- adjustments

- (b) Profit and Loss account: Meaning and significance – steps in preparation of profit and loss accounts- performance of profit and loss account- adjustments
- (c) Balance Sheet: Meaning and significance- objectives- preparation of balance sheet- arrange of assets and liabilities – adjustments.

Unit X:

Small Business Enterprise (S.B.E):

What is S.B.E- how to promote SBE- how to run basic principles of managing small enterprise- what form of support is available from- Govt of A.P, DRDA, Industries Dept, APSIDC, SIDBI, OVISIET, commercial banks- Training- SC/ST/BC's- Project report for setting up a S.B.E

Syllabus
IIInd Year
Paper 4 : Data Structures using 'C'

Unit/Chapter	No of Periods
I	15
II	25
III	25
IV	25
V	25
VI	25
VII	20
Total	160

Unit I:

Introduction:

Binary and Decimal Integers, Real Numbers, Character Strings.,
etc:- Arrays in C - Structures in C – Exercise.

Unit II:

The Stack:

Definition of a stack, - Representing stack in C – Infix, Postfix
and Prefix – Examples and Exercise

Unit III:

Recursion:

Recursion definition and processes – recursion in C - Recursive
programs – Simulating recursion – Efficiency of recursion –
Exercise.

Unit IV:

Queues and Lists:

Queues and its sequential representation – Linked Lists – Lists
in C – Examples using Linked Lists – Other List Structures -
exercises

Unit V:**Trees:**

Binary Trees – Binary tree representation - Huffman's algorithm
– representing list as binary trees – tree and their applications
– exercises – examples.

Unit VI:**Sorting:**

Introduction – Exchange of sorts - selection and tree sorting –
Insertion sorts – merge and radix sorts.

Unit VII:**Searching:**

Basic search techniques – tree searching – general search tree
– hashing exercises

Books:

(1) Data structures using C

— *M. Tanenbaum, Langsam and Augenstein*

Paper 5:

Relational Data Base Management Systems(RDBMS)

Unit/Chapter	No of Periods
I	25
II	35
III	25
IV	50
V	25
Total	160

Unit I:

Concept of DBMS:

Purpose of Data Base Systems – Data abstraction – Data models – Instances , Schemes- Data Independence - Data Integrity – DDL , DML. DCL – Data Base Manager – Data Base Administrator.

Unit II:

Entity and relationship:

Entity and Entity sets – Attributes – Relationship and Relationship sets – Mapping constraints – E-R representation symbols – Drawing E-R diagrams – Reducing E-R diagrams into tables.

Unit III:

Relational Data Model:

Structure - formal query languages – commercial query languages – CODD rules – Network data model:- Basic structure - DSD's - DBTG Codasyl Model-Hierarchical data model: Basic structure – tree structured diagrams.

Unit IV:

Concept of SQL:

Making the objects and parts – Literals: texts, integers, Number, Data Types, character type, long data type, date data type, RAW data type, long RAW data type, rowid , Null , Pseudo columns Unary and binary operators, arithmetic operators, logical operators and functions SQL commands, DDL commands, DML commands, DCL commands, and some simple queries.

Unit V:

Software Development and Life cycle:

Definition of system, analysis and design - Study of software life cycle – requirement analysis , design , development, testing, implementation and maintenance.

Books:

1. Data Base Management Systems — *Korth and Sudershan*
2. Data Base Management — *C.J. Date*
3. Software Engineering — *Roger Pressman*

Paper 6:

Data Communication and Computer Networks

Unit/Chapter	No of Periods
I	25
II	25
III	30
IV	25
V	25
VI	30
Total	160

Unit I:

Data communications:

Definition – Types of communication – Band width –
Communication channels- modes of transmission – multiplexing

Unit II:

Network topologies:

Definition – Types of Networks (Private, LAN, WAN, MAN, Value
Added) – Network topologies(Bus, Ring, Star, Mesh and Hybrid)

Unit III:

LAN Components :

- * Work station
- * File Server
- * Gateways
- * NIC(Lan Cables, Lan Cards, Ethernet cards, etc)
- * Hubs/ Switches

Unit IV:

Communication HardWare:

Adopters - Multiplexers – Modems - V-SAT - ATMS

Unit V

NetWork Environment:

UNIX

WIN-NT

Unit VI

NetWork & Web Applications:

Messaging - E-Mail – FTP - Gopher - Telnet - WebBrowsers -
Internet Explorer - NetScape Navigator - Mosaic

Reference Books :

1. Fundamentals of Information Technology — *Galgotia Publications*
2. Computer Networks — *A. Tenenbaum*
3. NetWork Concepts — *BPB Publications*

PRACTICAL LABORATORIES

- PRACTICAL –1 : ENGINEERING DRAWING**
- PRACTICAL –2 : PROGRAMMING IN ‘C’**
- PRACTICAL –3 : Int. to WINDOWS & MS OFFICE**
- PRACTICAL –4 : DATA STRUCTURE With ‘C’**
- PRACTICAL –5 : SQL & DTP**
- PRACTICAL –6 : INTERNET & E-MAIL**

ENGINEERING DRAWING
1st YEAR PAPER-I
PRACTICAL

Sl.No.	Major Topics	No.of Periods
1.	Introduction	6
2.	Lettering and Dimensioning	10
3.	Geometrical Construction	24
4.	Orthographic Projection	45
5.	Isometric Projection	35
6.	Sections of Solids	20
7.	Development of Surfaces	20
	Total	160

Detailed Syllabus

1.0. Introduction

- 1.1. Scope and objective of the subject
- 1.2. Importance of engineering drawing as a communication medium
- 1.3. Drawing instruments and their uses
- 1.4. Scales : Recommended scales, reduced & enlarged
- 1.5. Sheet sizes : A0, A1, A2, A3, A4, A5. Layout of drawing sheet sizes of title block and its contents
- 1.6. Simple exercises on the use of drawing instruments.

2.0. Lettering and Dimensioning

- 2.1. Types of Lettering
- 2.2. Guide Lines for lettering
- 2.3. Recommended sizes of letters and numbers
- 2.4. Single stroke letters.
- 2.5. Dimensioning - rules and systems of dimensioning - dimensioning a given drawing

3.0 Geometric Construction

- 3.1. Bisecting a line - perpendiculars - parallel lines - division of a line
- 3.2. Angles - bisection, trisection
- 3.3. Tangent lines touching circles internally and externally
- 3.4. Polygons - Regular polygons - circumscribed and inscribed in circles.
- 3.5. Conic sections - Definitions of focus, directrix, eccentricity
 - (i) Construction of Ellipse by Concentric circles method.
 - (ii) Construction of parabola by rectangular method.
 - (iii) Construction of Hyperbola when given the position of point from X-axis and Y-axis.

4.0 Orthographic Projection

- 4.1. Definition - Planes of Projection - Four quadrants - Reference line.
- 4.2. First angle projection - Third angle projection
- 4.3. Projections of points
- 4.4. Projections of straight lines
- 4.5. Projections of planes
- 4.6. Projections of solids
- 4.7. Conversion of pictorial views into orthographic views

5.0. Isometric Projection

- 5.1. Definition - Isometric axes, lines and planes
- 5.2. Isometric Scale - Isometric view
- 5.3. Drawing of isometric views of plane figures
- 5.4. Drawing of isometric views of prisms and pyramids
- 5.5. Drawing of isometric view of cylinders and cones

6.0. Sections of Solids

- 6.1. Need for drawing sectional views - section planes - sections - true shape of a section
- 6.2. Sections of prisms and pyramids
- 6.3. Sections of cones and cylinders.

7.0. Development of Surfaces

- 7.1. Need for preparing development of surface
- 7.2. Concept of true length - Principal methods of development
- 7.3. Development of simple solids like cubes, prisms, cylinders, pyramids, cones.

PRACTICAL – 2 PROGRAMMING IN C

The List of Programs is given below:

1. Area of a Circle
2. Lowercase to Uppercase Character Conversion
3. Lowercase to Uppercase Text
4. Reading a Writing a line of Text
5. Averaging Student exam codes
6. Compound Interest Calculation
7. Real Roots of Quadratic Equations.
8. Evaluating a Polynomial
9. Generating multiplication Table of given number 'n'
10. Averaging list of numbers.
11. Calculation of Students Results and division
12. Converting several line of text to Uppercase
13. Encoding a String of Characters
14. Calculation of compound interest with error trapping
15. Solution for algebraic equations
16. Searching Palindrome
17. Check whether given number is Armstrong Number or not
18. Largest of three given numbers
19. Calculation of Factorial to given number
20. Generating Pascal Triangle
21. Printing Backwards
22. Finding sum of series
23. Finding length of given text of lines.
24. Search for maximum
25. Generating Fibonacci numbers

26. Matrix Addition/Subtraction
27. Reordering list of numbers
28. A piglatin Generator
29. Adding two tables of numbers
30. Reordering list of Strings
31. Matrix Multiplication
32. Displaying the Day of the Year
33. Concatenation of two strings
34. Updating Customer records
35. Locating Customer records
36. Processing Linked Lists.
37. Raising a number to Power
38. Creating a Data File (lowercase to uppercase)
39. Reading a Data File
40. Creating a File containing Customer Records
41. Updating a File containing Customer Records
42. Creating an unformatted data file containing Customer Records
43. Updating an unformatted data file containing Customer Records
44. Displaying in Bit pattern
45. Data Compression(Sorting Names & Dates of Births)

PRACTICAL – 3
WINDOWS & MS OFFICE

WINDOWS – 98 OPERATING SYSTEM

CHAPTER I :

INTRODUCTION TO WINDOWS – 98

FEATURES OF WINDOWS – 98

- (1) GRAPHICAL USER INTERFACE (GUI)
- (2) GRAPHICS MANIPULATION
 - # 32 – Bit File System
 - # Multitasking
 - # System Robustness
 - # Long File Names
 - # Plug and Play Support
 - # Multimedia Support
 - # Object Linking and Embedding (OLE)
 - # Comparison with CUI (Dos or Unix)

STARTING WINDOWS – 98

- # Elements of Windows – 98 Interface
 - * My Computer
 - * My Documents
 - * Internet Explorer
 - * Network Neighbourhood
 - * Recycle Bin
 - * Taskbar
 - * My Briefcase
 - * Channel Bar
 - * Desktop Toolbar
 - * Shortcut Menus
 - * Property Sheets

- # Mouse Operation
 - * Dragging the Items with Mouse
 - * Activating Shourtcut Menus

Starting a Program (Application)

- * Start Menu
- * Programs Menu
- * Documents Menu
- * Settings Menu
- * Find and Help Menu
- * Run Menu
- * Shutdown Menu
- * Log-Off Menu

Windows Manipulation

Customising Windows

- * Minimising a Window
- * Enlarging a Minimised Window
- * Maximising a Window
- * Manually Resizing a Window
- * Moving a Window
- * Closing a Window

Shutting Down the PC

- * Stand By
- * Shut Down
- * Restart in Ms.Dos Mode
- * Restart
- * Log Off Windows
- * Log On as a Different User.

CHAPTER II:

MANAGING FILES AND FOLDERS

WORKING IN WINDOWS – 98

Folders

Desktop

My Computer Folder

My Document Folder

Notepad

- * Creating Text Files
- * Editing Text Files
- * All the Menu Features of Notepad

Renaming the Folders

Selecting the Objects in Folders

- * Selecting One Folder
- * Boundry Box Method to Select Multiple Files
- * Selecting Single Group of Consecutive Folders
- * Selecting Non-Consecutive Folders
- * Selecting Group Of Consecutive Folders
- * Deleting Files and Folders

Using Recycle – Bin

- * Restoring Deleted File or Folder
- * Emptying the Recycle Bin

OPENING MULTIPLE OBJECTS:

Open Multiple Objects

Open Multiple Applications Using the Mouse

Creating our Own Folder

Copying Objects

- * Drag and Drop Feature
- * Using Keyboard
- * Using Standard Toolbar
- * Right Dragging Method

Moving Objects

- * Drag and Drop Feature
- * Using Keyboard
- * Using Standard Toolbar
- * Right Dragging Method

CONFIGURING WIN – 98 FOR UNIQUE USER AND DESKTOP:

- # Managing Passwords
- # Setting Programs
- # Starting Programs on Start-Up Menu
- # Changing the Icon for a File Tag or Other Object
- # Control Panel
 - * Setting Mouse Properties
 - * Setting Display Properties
 - * Setting Printer Properties

- # Setting Date and Time Options
- # Controlling the Folders Appearance
- # Setting the Font Appearance
- # Using the Task Bar
 - * Features of Taskbar
 - * Setting the Properties of Taskbar

- # Desk Top
 - * Features Of Desk Top
 - * Customising the Desktop

- # Windows Explorer
 - * Viewing Files and Folders
 - * Creating Files and Folders
 - * Dragging and Dropping Files
 - * Cut – Copy – Paste
 - * Searching Files
 - * Deleting Files and Folders
 - * Previewing a Document with Quick View.

CHAPTER – 3

USING ACCESSORIES, DISK TOOLS AND PRINTERS

ACCESSORIES AVAILABLE IN WINDIWS:

- # Using Standard Calculator
- # Using Scientific Calculator

Statistics Box

Word Pad

- * Starting Word-Pad
- * Creating New Wordpad Document
- * Opening Wordpad Document
- * Saving a Document
- * Selecting Text
- * Moving and Copying Text

Drawing Pictures with Paint

- * Starting Windows Paint
- * Drawing with Pencil Tool
- * Drawing the Picture with Tools
- * Embedding a Paint Object
- * Linking a Paint Object
- * Previewing Painting

LOCATING YOUR FILES AND ORGANISING DISK.:

Finding Files using File Tool

Using Wild-Cards

Finding a Program-File

Searching by Modification Date

Making a Search Case – Sensitive

Formatting and Labelling Disks

Back-Up Files

- * Creating Back-Up File
- * Saving File Set
- * Opening File-Set for using in Back-Up
- * Restoring Files
- * Verifying Back-Up Files

Using Printers

- * Windows – 98 Printing Features
- * Spooled Printing

Printing from Windows – Applications

- * Printing a Document
- * Printing Multiple Copies
- * Printing from Desktop
- * Printing from Context Menu
- * Printing with Drag and Drop
- * Printing with Send To
- * Printing from a Folder

VERSIONS OF WINDOWS OPERATING SYSTEMS:

Features of Different Versions

Comparison of Windows – 98 with other Versions.

MS -OFFICE

MS-WORD:

- 1 Int . to Word Processing
- 2 Features of Word Processor
- 3 Getting Started with MsWord
- 4 Contents of Ms Word Window
- 5 Working with Word Documents
- 6 Opening an existing Document
- 7 Formatting a Document
- 8 Spelling and Grammar
- 9 Editing and proofing text
- 10 Mail merging.
- 11 Tables
- 12 Working with window
- 13 Help
- 14 Quitting MS-Word
- 15 Short cut keys

MS-EXCEL

- * Introduction to Electronic Spreadsheets
- * What is a Spreadsheet?
- * Manual Spreadsheet
- * Electronic Spreadsheet
- * Differences between Manual and Electronic Spread Sheet
- * Applications of Electronic Spreadsheets
- * Types of spreadsheets
- * Features of MS-Excel
- * Starting MS-excel
- * Contents of the MS-Excel Window
 - Title Bar
 - Menu Bar
 - Toolbars
 - Row and Column Headings
 - Cell
 - Formula Bar
 - Reference Area
 - Status Bar
 - Scroll Bar
 - Worksheet Tabs
 - Tab Scrolling Buttons
 - Office Assistant
- * What is a Workbook?
- * Using sheets in a workbook
- * Entering Data
- * The Data Types
- * Entering Column Titles
- * Entering Numbers
- * Entering Date and Time
- * Entering Series
- * Editing Data
- * Selecting Cells
- * Copying Data
- * Moving Data

- * Drag- and- Drop Feature
- * Undo command
- * Redo command
- * Clearing Cell Contents
- * Saving a Workbook
- * Auto Save
- * Closing a Workbook
- * Quitting MS-Excel

- * **Worksheets and Graphics**
- * **Workbooks**
- * **Data lists and databases**
- * **Data Exchange with other applications**

- * Cell Referencing
- * Relative and Absolute Referencing
- * Ranges
- * Range Names
- * Assigning Names
- * Formulae
- * Order of Operations
- * Functions
 - Sum
 - Max
 - Min
 - Average etc.,
 - Logical Functions(= IF) etc.,
- * AutoSum
- * AutoCalculate
- * Using Paste Function
- * Formula Error Messages
- * Formula Auditing
- * Copying Formulae

- * Working with Worksheets
- * Selecting Worksheets
- * Renaming Worksheet
- * Inserting and Deleting Worksheets
- * Changing the order of Worksheets
- * Copying Worksheets
- * Restructuring Worksheets
- * Formatting Data
- * Formatting Numbers
- * Formatting Numbers
- * Aligning Cell Contents
- * Creating Borders
- * Fonts
- * Orientation of Text
- * Entering Data quickly

- * AutoCorrect
- * AutoComplete
- * Creating Charts
- * Charts
- * Components of a Chart
- * Drawing a Chart

- * Creating and Editing a Database
- * Data Form
- * Elements of Data Form
- * Deleting Data
- * Searching Data
- * Sorting Data
- * Filtering
- * Data Query Using AutoFilter
- * Turning Off Filter
- * Creating Subtotals
- * PivotTable
- * Creating a PivotTable

- * Refresh Data in a PivotTable
- * Delete a PivotTable
- * Change the Layout of PivotTable
- * Printing in Excel

MS – POWER PONT

- * Introduction to MS-PowerPoint
- * Starting power point
- * Importance of presentations
- * Window Description
 - Title Bar
 - Menu Bar
 - Toolbars
 - Ruler bar
 - Slide
 - Scroll Bar
 - Movement Buttons
 - View Buttons
 - Status Bar
- * Presentations
- * Slides
- * Handouts
- * Speaker's Notes
- * Outlines
- * Media Clips
- * Organization Charts
- * Graphs
- * Starting MS-PowerPoint
- * The MS-PowerPoint Window
- * The MS-PowerPoint Views
 - Slide View
 - Slide Sorter View
 - Outline View
 - Notes Pages View

— Slide Show View

- * Presentations and Slides
- * Creating a new Presentation
- * Creating a new Slide
- * Changing the layout for a Slide
- * Deleting a slide
- * Running a Slide Show
- * Saving a Presentation
- * Closing a Presentation
- * Exiting Ms-PowerPoint
- * Opening a Presentation
- * Changing the Order of the Slides
- * Editing the Slide Master
- * Changing the Color Scheme
- * Changing the background
- * Adding Clip Art
- * Drawing Objects
- * Working with the Slide Show
- * Setting up a Slide Show
- * Controlling the Slide Show
- * Adding transition to the Slide Show
- * Setting Slide timings
- * Printing a Presentation

MS-Access

- * Table design Using design wizard
- * Query Design
- * Form Design
- * Report Design

SECONDYEAR PRACTICAL
PRACTICAL – 4 : DATA STRUCTURE With 'C'

Note: Practice minimum of 40 programs covering all topics of the Data Structures , as some of them given below.

1. Write a 'C' Program to read a string and display same using Arrays
2. Write a 'C' Program to swap two numbers using Pointers
3. Write a 'C' Program using 'call by value' and 'call by reference'
4. Write a 'C' Program for multiplication of two matrices
5. Write a 'C' Program using structures to maintain the student marks
6. Write a 'C' Program using structures to add and multiply of two complex numbers
7. Write a 'C' Program to implement a stack with size of 10 elements, Insert 5 elements and delete 3 elements
8. Write a 'C' Program to evaluating Postfix expression
9. Write a 'C' Program to find factorial of a given Number using Recursion
10. Write a 'C' Program using recursion to find Fibonacci series
11. Write a 'C' Program to implement a Queue , Insertion and Deletion from the Queue.
12. Write a 'C' Program for Binary search
13. Write a 'C' Program using pointers and implement Linked List
14. Write a 'C' Program to search an element Using Binary search
15. Write a 'C' Program to search an element using Sequential Search.
16. Write a 'C' Program to sort a given Numbers using Insertion Sort.
17. Write a 'C' Program to sort given numbers using Quick Sort.
18. Write a 'C' Program to sort given numbers using Merge Sort.
19. Write a 'C' Program for Binary Tree Representation.

PRACTICAL – 5 : SQL & DTP

Note: Practice minimum of 40 simple Queries using SQL, PL/SQL covering all topics related to DDL,DML and DCL.

CORAL DRAW 11

History and introduction about coral draw 11

Window Description

- Corel draw 11 Application Window
- Document Window

Specifying Toolbar and Dialog Values

Working with Dockers

- Opening, Moving and Closing Dockers
- Nested Dockers

Using the Toolbox

Working with Toolbars

Using the Color Palette

- Viewing Palette Colors
- Changing Palette Options

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- Opening and Saving Templates

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- Using Undo Docker

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- Setting the Ruler Origin
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- Show, Display, and Snap To Options
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- Controlling Guideline Properties
- Adding, deleting, and moving guidelines
- Setting Guidelines Colors
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- Object Selection Techniques
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- Applying Presets to Lines
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- Saving Brushes and Spray Styles

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- The Theory Behind Beziers
- Drawing with the Bezier and Pen Tools

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- Breaking Paths Apart
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- Using Dimension Tool States
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- Using the shaping Docker

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- Setting Knife Tool Behavior

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- Setting Eraser Tool properties

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- Using Graphic Style Commands
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- Combining and Breaking Apart Artistic Text
- Converting Artistic Text to Curves
- Artistic Text and the Shape Tool

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- Working with Text in other languages

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- Finding text properties
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Applying outline pen properties

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Exploring the outline pen dialog

- Setting outline color
- Choosing outline styles
- Creating and editing outline styles
- Setting outline arrowheads
- Setting corner shape
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- Miscellaneous outline options
- Outline pen object properties dialog

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Browsing fill types

Applying fills to shapes

Applying a uniform color fill

- Setting uniform fill options

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- Customizing fountain fill colors
- Setting fountain fill dialog options

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- Controlling pattern fills interactively
- Using pattern fill dialog options
- Creating and saving texture samples

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- Details of a mesh fill
- Editing of a mesh fill

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- Using the color palette browser docker
- Using the color styles docker

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Using color mixers

- Mixing with color harmonies
- Mixing with color blend

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- Using fixed palettes
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Creating envelop effects

- Using the interactive envelop tool and property bar
- Using the envelope docker
- Envelope tool cursor states
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- Choosing envelope mapping options

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- Copying properties from other envelopes
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Mastering distortion effects

Using the interactive distortion tool and property bar

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Twister distortion

Using interactive distortion tool markers

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- Exploring distortion presets

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- Mastering roughen brush
- Roughen brush property bar options

The power of blends and contours

Comparing blend and counter effects

Using corel DRAW'S blend effects

Real-world blending

The interactive blend tool and property bar

Creating a typical blend effect

Details Of a blend

Editing blend effects

- Setting blend options
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- Assigning a blend path
- Managing multi-objects blends
- Copying and cloning blends

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- Color add lens
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- Feathering direction
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- About drop shadow color and resolution

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Power clipping an object

Controlling power clip behavior

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Under the hood of the print engine

Printing a simple document

Setting print options

- Setting general options
- Using print styles
- Saving a print file
- Choosing a layout

Printing separations

Setting pre press options

Choosing postscript options

Miscellaneous printing options

Corel DRAW 11's printing issue reports

Previewing your printed document

- Browsing and viewing previews
- Print preview tools and the property bar

Setting printing preferences

- General printing preferences

Driver compatibility

Printing issues warning options

Corel's double –sided printing wizard

Using the prepare for service bureau wizard

Print merge

Setting print options

- Setting general options
- Using print styles
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Print merge

PRACTICAL – 6 : INTERNET & E-MAIL

- * Exposure to Network connectivity Hardware and Devices.
- * Network devices such as
 1. Modem
 2. Network cards
 3. Lan cards.
- * Dial up and ISDN connections
- * Usage of Public Internet Services for the following
 1. E-Mail
 2. Internet Fax
 3. Web Surfing
 4. File Transfer
 5. Creating and hosting a web page.

7. (a) Collaborating Institutions for curriculum transactions

- ✓ DTP centers locally available
- ✓ Data conversion centers

(b) On Job Training Centers

- ✓ Software development centers
- ✓ Universities
- ✓ Public sector companies
- ✓ Small Scale Industries

8. Qualification for Lecturers

- ✓ B.E./B. Tech (CS/IT), MCA, MCM and other Master level courses offered in the field of Computer Science recognized by the U.G.C
- ✓ M.Sc(CS/IT/IS/Maths) with II Class
- ✓ B.E(Any discipline) with PGDCA offered by the recognized Universities.
- ✓ B. Sc. (CS/IT) with PG Diploma in Computer offered by the recognized Universities
- ✓ B.C.A. with any PG DCA/PGDMISCA offered by the recognized Universities

9. Vertical Mobility

- ✓ Eligibility to attend A Level course recognized by DOEACC
- ✓ To certain science degree courses on completion of Bridge course (Maths, Physical Sciences)
- ✓ Can enter into B.Sc(CS/IT), B.E/B.Tech, Polytechnic with Bridge course
- ✓ B.Com(Comp) without bridge course.

10. List of Equipment

Sl.No	Equipment	No. Required
1.	Pentium-IV(Including 128MB RAM, 40GB HDD,1.44MB FDD 15" Color Monitor, 107 keys Key board, Mouse, 52X CD-ROM	10Nos (Including Server)
2.	Software DOS,Windows-98,Windows-NT, MS-Office-2000, TurboC, FINANCIALACCOUNTING PACKAGE, PAGE MAKER, COREL DRAW Latest versions	01 Nos Each
3.	Air conditioners 1.5 Ton	01Nos
4.	Computer Tables	10Nos
5.	Operators Chairs	10Nos
6.	Printer tables	02Nos
7.	Steel cupboards	01Nos
8.	Library book case with looking facility	01 Nos
9.	Tables for Staff members	02Nos
10.	Chairs for Staff members	02 Nos
11.	Vacuum cleaner	01 Nos
12.	Servo Stabilizer 5KVA	01 Nos
13.	Floppy Disks 1.44MB	5 Boxes
14.	Laser Printer	02Nos
15.	Stationery (A4 Size papers)	3 Packets
16.	Shoe Rack (to accommodate at least 10 pairs)	1 Nos
17.	Computer center 20' X 25' or subject to the avail- ability of accommodation but minimum of 20' x 20' with false roofing and flooring.	

11. LIST OF REFERENCE BOOKS

1. Engineering Drawing — *N.D.Bhatt*
2. Fundamentals of Information technology — *M.L. Sai Kumar*
3. Fundamentals of Information technology — *Galgotia Publications*
4. Computer and commonsense — *Hunt & Shelly*
5. Understanding Computers — *Dinesh Kumar*
6. Computers Today — *Sandesson*
7. Programming in C — *E. Balaguruswamy*
8. Let Us “C” — *Yashwanth Kanetkar*
9. Data Structures Using C — *M. Tanen Baum,
Langsam, Augenstein*
10. Data Base Management System — *C.J. Date*
11. Data Base Management System — *Korth and Sudershan*
12. Fundamentals of MS-Office — *BPB Publications*
13. DTP — *Joseph St. John Bati*
14. Master in Corel Draw(Version 11) — *BPB Publications*
15. Master in Page Maker(Version 7) — *BPB Publications*
16. Computer Networks — *Andrew .S. Tanenbaum*
17. Software Engineering — *Roger Pressman*
18. Software Engineering — *Shuman*

VOCATIONAL CURRICULUM - 2005
(With effect from the Academic year 2005-2006)

Curriculum of Intermediate Vocational Course
in
COMPUTER
SCIENCE &
ENGINEERING



STATE INSTITUTE OF VOCATIONAL EDUCATION &
BOARD OF INTERMEDIATE EDUCATION A.P.
Nampally, Hyderabad

FOREWORD

The National Policy on Education (1986) while proposing educational reorganization, placed high priority on the programme of vocationalisation of education. It emphasized that well planned, systematic and rigorously implemented vocational education will create a distinct stream to prepare students for identified occupations encompassing several areas of activity. The primary aim of vocational courses was to cut across several occupational fields and prepare students with employable skills in organized sectors and self employment. Vocationalisation through re-orientation of educational strategies focused on creating a talent pool of skilled youth who are trained in courses relevant to the market and emerging needs of the various sections of the economy.

Inspired by this vision of the National Policy, the Government of Andhra Pradesh introduced Vocational Education at +2 level with an aim to diversify a sizeable segment of students at the senior secondary stage to the world of work. The State Government aimed at reducing the pressures on higher education through empowering youth by harnessing their capabilities. The requirement of skilled manpower industry is being fulfilled by charting a student's career with right options based on aptitude and talent. An right alternative to medical and engineering courses is envisaged in vocationalisation of education in the State.

In view of the changing needs of the students and growing demand for a spectrum of skill competencies in the economy, the Board of Intermediate Education has reviewed the curriculum of Vocational Courses in order to re-orient them based on their viability and practicability. The revised curriculum for Vocational Courses at Intermediate Level will come into effect from the Academic Year 2005-06 1st Year and from Academic Year 2006-07 for 2nd Year students.

I am confident that the revised curriculum will attract more and more students into vocational stream and help them train in need-based, productive courses leading to gainful employment.



SHASHANK GOEL

Secretary, BIE

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