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LIST OF COMMITTEES MEMBERS FOR THE TRADE OF  
COMPUTER SOFTWARE PROGRAMMING.

MEMBERS AND EXPERTS:

1. Mr. K.Panneer Selvan, M.E.,  
Regional Joint Director of Training,  
Madurai.7.
2. Mr. R.Rajkumar, M.E., M.B.A.,  
Principal,  
Govt. ITI (Women),  
Madurai.7.
3. Mr. P.Kathiresa, B.Sc(Comp.Sc.)  
Computer Instructor,  
Pabanas ITC,  
Sivakasi.
4. Mrs. R.Kalaiselvi, D.B.C.E.,  
Assistant Training Officer,  
Related Instruction Centre,  
Madurai.7.
5. Mr. S.Sathish Kumar, M.C.A.,  
Assistant Training Officer,  
Govt. ITI (Women),  
Madurai.7.
6. Mrs. Udhaya Lakshmi, M.C.A.,  
Computer Instructor,  
Dr. Ambedkar Cultural Academy,  
Mandela Nagar,  
Madurai.

**COURSE DETAILS**

|                                  |  |
|----------------------------------|--|
| <b>Name of Trade</b>             | <b>: COMPUTER SOFTWARE<br/>PROGRAMMING</b> |
| <b>Qualification</b>             | <b>: 10<sup>TH</sup> PASS</b>              |
| <b>Age</b>                       | <b>: 14-40 Years</b>                       |
| <b>Duration</b>                  | <b>: 1 Year</b>                            |
| <b>Number of Trainees</b>        | <b>: 20</b>                                |
| <b>Number of Practical hours</b> | <b>: 32 hrs. per week</b>                  |
| <b>Number of Theory Hours</b>    | <b>: 12 hrs. per week</b>                  |
| <b>Space Required</b>            |  |
| <b>Workshop</b>                  | <b>: 300 sq. feet</b>                      |
| <b>ClassRoom</b>                 | <b>: 200 sq. feet</b>                      |
| <b>Power Required in KW</b>      | <b>: 3 k.w.</b>                            |

Programming.

NAME OF THE TRADE : COMPUTER SOFTWARE & PROGRAMMER

QUALIFICATION : S.S.L.C

DURATION : 1 Year

NO.OF.TRAINEES : 20

NO.OF PRACTICAL HOURS : 32 Hours/week

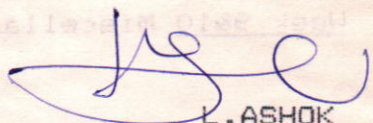
NO.OF THEORY HOURS : 8hours/week

SPACE REQUIRED (IN SQ.M) : 5 Sq. M. Per Trainee

POWER REQUIRED (IN K.W) : 5 K.W

*Ch. Naray*  
PRINCIPAL

**PABANAS I.T.C.**  
9 M. C. Street,  
SIVAKASI - 626 123.



L.ASHOK  
CORRESPONDENT  
PABANAS ITC, SIVAKASI  
CORRESPONDENT.  
**PABANAS COMPUTERS INDUSTRIAL SCHOOL**  
SIVAKASI 626123

## C++

### Week 1

#### **Overview of Programming :**

Introduction to computer, based problem solving and strategies for the same, programs Design and implementation issue, Algorithm, Data organization, Data structures, Use of procedures for Modular Design, documentation of programs and program testing.

### Week 2

#### **Fundamental of C++ Programming :**

Structure of C++ programming Data type, Data structure, Constants and variables.

### Week 3

#### **Operators:**

Arithmetic, Relation and Logical, Control if-then, for-while.

### Week 4

#### **Arrays :**

Array declaration, one and two dimensional array - Functions: General, function arguments, return value.

Week 5 Basic I/O : Formatted and unformatted I/O

Week 6&7 Advanced Programming Techniques

Week 8 Dynamic Data structures in C++

Week 9&10 Miscellaneous features : File handling.

MS-WORD(1 Month)

Week 1

- 1. Typing,Deleting,editing text
- 2. Formatting characters (Bold, Italics, Underline, Size, Fonts, Strikeout, Animation)
- 3. Formatting Paragraphs (Set alignment, Margins, Styles)
- 4. Moving and copying text (cut, copy, Paste, drag And Drop)
- 5. Bullets, Numbering, drop cap
- 6. Creating, Opening & Saving Documents

Week 2&3

- 1. Inserting graphics & formatting graphics
- 2. Inserting images
- 3. Inserting clipart images
- 4. Inserting chart
- 5. Inserting word Art
- 6. Insert System date & time, Text box
- 7. Document Formatting  
Background Colors, PageSetup, Page size, Margins setting, Borders & Shading, Header & Footer
- 8. News paper column setting, Tab setting, change case, word count
- 9. Page breaks, Column breaks
- 10. Print preview

Week 4&5

- 1. Insert table
- 2. Insert row,column and delete row,column
- 3. Change the size of row,column
- 4. Select row,column,table
- 5. Formula,sorting,Change text direction
- 6. Merge & split the cells
- 7. Change border style, fill color, Auto format
- 8. Set Distribute Rows evenly & Distribute Column Evenly

Week 6

- 1. Find text
- 2. Replace the text
- 3. Goto
- 4. Spell checking & Grammer checking
- 5. Create shortcut for Symbols
- 6. Create & insert the autotext
- 1. Mail merge
- 2. Labels
- 3. Envelops
- 4. Letter wizard

## MS ACCESS(1 Month)

### Week 1

1. Introduction to DBMS  
Data, Record, Field(Column),  
Table, Database, Report, Form
2. Introduction to ACCESS
3. Features of ACCESS
1. Create a new table  
Datasheet View  
Design View  
Fields Data Types, Length, Validation, Primary, Duplicate  
Table Wizard  
Import Wizard
2. Adding records to a table
3. Insert new records and column
4. Deleting records
5. Selecting records and table
6. Change row height, column width
7. Hide & Unhide the columns

### Week 2

1. Filtering records
2. Sorting records
3. Remove filtering and sorting
4. Find data and replacing data
5. Saving Records

### Week 3

1. Create Queries
2. Run queries
3. Create forms  
Form wizards  
Design  
Auto form
4. Using Form Tools, setting properties, writing code
5. Run the form

### Week 4

1. Create Report  
Report wizard  
Design View  
Arranging fields, and labels  
Auto Report
2. Save & Run the report
3. Set relation between two tables
1. Page wizard
2. Auto page

MS EXCEL

Week 1

- 1. What is a worksheet?
- 2. Columns, Rows and Cell Addressing
- 3. Formula bar, Name box
- 4. Saving & opening the worksheet
- Formatting, Insertion, & Deletion
  - 1. Data types
  - 2. Alignments
  - 3. Changing column width
  - 4. Formatting width
  - 5. Inserting row & column, Deleting row & column
  - 6. Inserting worksheet
  - 7. Insert chart, chart options, chart types

Week 2

- 1. Filling the cells with **Series** of values
- 2. Page setup
- 3. Zooming worksheet
- 4. Naming Ranges
- 5. Inserting Picture

Week 3

- 1. Statistical functions  
Sum, Average, count, Max, Min, Large, Small, Rank
- 2. Logical Functions : If
- 3. Mathematical Functions  
Abs, Ceiling, Combin, Counif, Even, Odd, Fact, Floor, GCD, Int, LCM  
Mod, Power, Product, Quotient, Roman, Round, Sort, Subtotal, Sum,
- 4. Date & Time functions  
Date, Day, Month, Year, Weekday, Time, Hour, minute, Second, Now
- 5. Text functions  
Left, right, Mid, Len, Proper, Text, Trim, Lower, Upper
- 6. Database Functions  
Dsum, DAverage, Dcount, DMax, DMin, DGet, DProduct

Week 4

- 1. Goal Seek
- 2. Writing Macros
- 3. Sort
- 4. Filter, Autofilter, Advanced filter
- 5. Form
- 6. Subtotals
- 7. Data Validation
- 8. Table
- 9. Text to columns
- 10. Pivot table
- 11. Get external data form a text file

## MS POWER POINT(1 Month)

### Week 1

1. Create a new presentation  
(Blank presentation, Autocontent wizard)
2. Saving & Opening a presentation
3. Design the presentation  
(Using graphics, textboxes, cliparts, wordarts)

### Week 2

1. Inserting
  - slide numbers
  - date and time
  - slides from file
  - slides from outline
  - movie from file
  - movie from gallery
  - movie from gallery
  - sound from gallery
  - sound from file
  - chart

### Week 3

1. Formatting
  - Font
  - Bullets & Numbering
  - Alignment
  - Line spacing
  - Change case
  - Slide Layout
  - Slide color scheme
  - Background
  - Apply design template
  - Colors & Lines

### Week 4

1. View show
2. Setup Show
3. Action buttons
4. Actions settings
5. Preset Animation
6. Custom Animation
7. Animation Preview
8. Slide transition
9. Custom show



VB 6.0(3 Months)

Week 1&2

1. Sample program to add two numbers
2. Data types
3. Inputbox example
4. Introduction with Forms
5. IF Stmt
6. Checkbox control

Week 3 &4

1. Radio button
2. Listbox
3. Combobox
4. Timer control
5. Menus
6. Picture box control

Week 5&6

1. File, Dir, Drive list box
2. Scroll bar
3. Line, Shape control
4. Files concept - Sequential, Random files
5. MS Flex grid control
6. Class Module (Bank)

Week 7&8

1. Multimedia control
2. Multiple Document Interface (MDI)
3. Common Dialog Control (File, color, Font)
4. Database Accessing Methods - Add, Edit, delete and search
5. DBGrid
6. DataCombo

Week 9&10

1. RDBMS - Relation object
2. Executing SQL Queries
3. Data Environment
4. Data project
5. Data combo control
6. Billing Program (ADO, Data environment)

Week 11&12

1. Status Bar control
2. Tollbar control
3. Clipboard object
4. Rich Textbox control
5. Text editor program
6. Web Browser
7. Active-X control Design

## ORACLE

### Week 1

- 1.Introduction
- 2.The PL/SQL Execution Environment
- 3.The PL/SQL Syntax
- 4.Data Types
- 5.The PL/SQL Block Structure
- 6.Error Handling in PL/SQL

### Week 2

- 1.Working with SQL Forms
- 2.Form Construction
- 3.Creating an ORACLE Default form
- 4.Creating a multiple Record form
- 5.Triggers
- 6.ORACLE user defined form

### Week 3

- 1.Selective Dump report
- 2.Master Detail Report
- 3.Control Break Report
- 4.Test Report
- 5.Report Structure
- 6.RPT commands

### Week 4

- 1.Procedures
- 2.How to create a Procedure
- 3.Advantage of Procedure
- 4.Functions
- 5.Creating a Stored Procedure
- 6.Advantages of Functions

### Week 5

- 1.ORACLE Commands
- 2.Create command
- 3.Select command,multiple row select
- 4.Insert command
- 5.Update command
- 6.Delete command,commit,rollback commands

Week 6

- 1.Null value Concepts
- 2.Default Value Concepts
- 3.Primary key concepts
- 4.Unique key concepts
- 5.Foreign key concepts
- 6.Check Integrity constraints

Week 7

- 1.Expression Lists
- 2.Renaming columns
- 3.Logical operators
- 4.Range Searching
- 5.Pattern Matching
- 6.Oracle Functions

Week 8

- 1.Indexes
- 2.Views
- 3.Joins
- 4.Subqueries
- 5.Cursors
- 6.ORACLE Transactions
- 7.Export/Import Modes

C(1 Month)

Week 1

- 1.Introduction To C
- 2.Constants
- 3.Variables
- 4.Datatypes
- 5.Operators & Expressions
- 6.Type Conversions

Week 2

- 1.Managing I/O Operations
- 2.Decision Making and Branching Statements
- 3.Looping Statemnets
- 4.Handling Strings
- 5.Arrays
- 6.Functions

Week 3

- 1.User Defined Functions
- 2.Structures
- 3.Unions
- 4.Pointers,Pointer and Functions

- 5.Pointer expressions
- 6.Pointer and arrays

Week 4

- 1.File Management
  - Defining,opening,closing a file
  - Random access to files
  - Command Line arguments
- 2.Dynamic Memory Allocation
  - Concept of Linked Lists
  - Application of Linked Lists
- 3.Macros-substitution,File inclusion
- 2.FRAMESET Element
- 3.Dynamic Documents-Server Push
- 4.Dynamic Documents-Client Push
- 5.Java
- 6.Activex,VB Script

*Project work - One month project in C++ / VB & MS Access*

LIST OF TOOLS AND EQUIPMENTS FOR THE TRADE OF .....  
FOR A BATCH OF 20 TRAINEES

| S.No. | DESCRIPTION   | QUANTITY |
|-------|---|----------|
| 1.    | COMPUTER<br>SVGA Color Monitor 14" or above<br>107 keys Keyboard/Internet<br>16 bit Ethernet Card<br>PENTIUM III Processor with 128 or 256 MB RAM<br>Minimum 10 GB of Hard disk | 10       |
| 2.    | Floppy Drives(1.44 MB)  | 3        |
| 3.    | CD Drives(Read)   | 2        |
| 4.    | CD Drives(R/W)  | 1        |
| 5.    | Optical Scanner   | 1        |
| 6.    | Dot matrix Printer  | 1        |
| 7.    | Laser Printer   | 1        |
| 8.    | 16 Port Hub for LAN   | 1        |
| 9.    | 500 VA or Higher off-line UPS for nodes   | 1        |
| 10.   | Multimedia workstation  | 1        |

## Industrial School

Long Term Trade - Syllabus – Revised

Name of the Trade: **COMPUTER SOFTWARE & PROGRAMMING**

Space required:

|                 |   |             |
|-----------------|---|-------------|
| Computer / Lab  | : | 350 Sq. ft. |
| Class Room      | : | 300 Sq. ft. |
| Trade Theory    | : | NO CHANGE   |
| Trade Practical | : | NO CHANGE   |

### **TOOLS AND EQUIPMENT FOR THE TRADE COMPUTER SOFTWARE AND PROGRAMMING:**

| S/NO | NAME OF THE ITEM  | QUANTITY REVISIED |
|------|---|-------------------|
| 1    | <b>SERVER</b><br><b>Pentium Processor 4</b><br><b>256 MB RAM</b><br><b>40 GB HDD</b><br><b>1.44 MB FDD</b><br><b>SVGA COLOUR MONITOR 14"</b><br><b>101 WINDOWS KEYBOARD, INTELLI</b><br><b>MOUSE, INTERNAL MODEM</b><br><b>16 BIT ETHERNET CARD</b><br><b>INTERNET CONNECTION</b><br><b>17 NODES with CD writer</b> | 01                |
| 2    | <b>WORK STATION</b><br><b>Pentium Processor 4</b><br><b>256 MB RAM</b><br><b>2 GB HDD</b><br><b>1.44 MB FDD</b><br><b>SVGA COLOUR MONITOR 14"</b><br><b>101 WINDOWS KEYBOARD, INTELLI</b><br><b>MOUSE, INTERNAL MODEM</b><br><b>16 BIT ETHERNET CARD WITH</b><br><b>INTERNET CONNECTION</b>                         | 04                |

|    |   |   |
|----|---|---|
| 3  | CD Drives (Read)                        | 2 |
| 4  | CD Drive (R/W)                          | 1 |
| 5  | Dot Matrix Printer                      | 1 |
| 6  | Laser Printer                           | 1 |
| 7  | 16 Port Hub for LAN                     | 1 |
| 8  | 500 VA or Higher off line UPS for nodes | 1 |
| 9  | Multimedia workstation                  | 1 |
| 10 | Desk Jet Printer Software               | 1 |
| 11 | Windows 95/98                           | 1 |
| 12 | MS Office 97/2000                       | 1 |
| 13 | Turbo: C++/Borland C, C++               | 1 |
| 14 | Visual Basic 60 VER                     | 1 |
| 15 | Oracle                                  | 1 |

| FURNITURE |  |        |
|-----------|--|--------|
| 16        | Vacuum Cleaner   | 1      |
| 17        | Chair and table for instructor   | 2 sets |
| 18        | Operator chair   | 10     |
| 19        | Printer Table  | 3      |
| 20        | Storage cabinet  | 2      |
| 21        | Windows type Air conditioners / or dust proof room sufficient 210 Toncapciem | 2      |
| 22        | Computer Table   | 5      |
| 23        | FIRE EXTINGUISHER  | 1      |
| 24        | FIRE BUCKET  | 2      |
| 25        | FIRST AID KIT  | 1      |