

REGULATIONS AND SYLLABUS
FOR
DIPLOMA IN BASIC PROGRAMMING

Offered by

BHARATHIYAR UNIVERSITY, COIMBATORE
FROM 2010-2011

Under the

CENTRE FOR COLLABORATION OF INDUSTRY AND
INSTITUTIONS (CCII)
COLLABORATIVE PROGRAMME

Bharathiyar University, Coimbatore-641046.

**CENTRE FOR COLLABORATION OF INDUSTRY AND INSTITUTIONS
(CCII)**

DIPLOMA IN BASIC PROGRAMMING **REGULATIONS AND SYLLABUS**

REGULATIONS

1. Description of course/objective of the course

This course is designed to prepare technicians with specialized skills, knowledge and attitude to work in finance and accounting field. The program will be conducted by any one of the approved by Bharathiyar University.

2. Eligibility

- a. A pass in 12th Examination or Equivalent Examination recognized by University Tamil Nadu Government

3. Duration of the Course

The Course shall extend over a period of 12 months.

4. Courses and Scheme of examination

Course No	Course Title	University examination		Credit
		Internal	External	
Paper.1(Theory)	WINDOWS	50	50	4
Paper.2(Theory)	C Programming	50	50	4
Paper.3(Theory)	Basics of C++	50	50	4

Paper.4(Theory)	Htмл	50	50	4
Paper.5(Theory)	Visual basic	50	50	4
Paper.6(Theory)	Communicative English	50	50	4

5. Practical Training

Being a practical oriented program, the focus will be more on practical training. The candidate shall undergo practical training of the computer laboratory.

6. Requirement to appear for examination

Candidate should put in a minimum of 90% attendance to appear for the examinations.

7. Passing minimum

To pass

- A candidate shall secure a minimum of 50% in the University examination for practical and overall 50% in each of the paper (Internal/ External) to pass the examination. A Candidate failing in any one of the components has to reappear for that particular component in the supplementary examinations.

8. Classification of successful candidate

- A candidate who obtains 75% and above, aggregate in theory and practical examinations, in the first attempt shall be deemed to have passed the examination with distinction.
- A candidate who obtains from 60% to 74% of the aggregate in theory and practical examinations, in the first attempt shall be deemed to have passed the examination in the first class.
- Other Successful candidates shall be declared to have passed the examination in the second class.

9. Conferment of degree

A candidate who has passed all the examinations as prescribed shall be eligible to receive the “**DIPLOMA IN BASIC PROGRAMMING**” from Bharathiyar University.

10. Course Material

Course Material shall be supplied by HIS Publications.

11. Revision of Regulation and syllabus

The syllabus and regulations of the courses are subject to modification by the university whenever necessary.

12. Question paper pattern

Theory examination will be for 100 marks with the following components which will be converted into 60 marks.

- Multiple Choice / one word answers: 20x1=20 marks(no choice)
- Short notes(100 words / one paragraph): 5x6=30marks (either or type)
- Descriptive(300 words / one ½ page): 5x10=50 (either or type)

Paper.1(Theory)
WINDOWS

Overall objective:

At the end of the program the students will be able to understand the WINDOWS, NOTE PAD & WORD PAD.

Specific objective:

Student will be able to understand the operations of windows operating system, Desktop, text editing and printouts in word pad & in note pad.

UNIT 1: OPERATING SYSTEM-WINDOWS

TASKBAR, Working with Taskbar, Taskbar properties, Cascading Windows, Date & Time,

UNIT 2: DESKTOP

Working with Desktop, Arrange Icons, Line up Icons, **NOTEPAD**-Opening Notepad, Parts of Notepad, Functions of Notepad, Recalling Keyboard, Saving and Closing the Document,

UNIT 3: TEXT EDITING-Cut, Copy, Paste, Working with Set Font, Word-wrap, **SEARCH & PRINTOUTS**-Working with Find option, Working with Replace option, Working with Print option,

UNIT 4: Windows Applications-Wallpaper and Screensaver, Setting Wallpaper, Setting Screensaver, Creating Shortcut, Changing Icon, Creating New Icon Picture

UNIT 5: Word pad-Opening Word pad, Working with Word Pad, Text Editing, Formatting the Text, Paragraph, Find & Replace, Printout,

Practical: (It will be assessed as part of internal assessment)

1. Open wordpad and create a file named "1.rtf". Again create another word file "2.rtf". In the similar way create "3.rtf" and "4.rtf" and cascade the files and also change the system date to Aug 15th 1947.
2. Create five folders in the names "a", "b", "c", "d", "e" and arrange the icons by name. Open notepad. Type the following "this is an exam" and save this document as "exam.txt" and close the program
3. Copy the text in exam.txt and create a new word file named "test.rtf" and use find and replace option. Find "This" and replace with "It" and print the document.
4. Use any image on the computer and set it as wallpaper and create a new folder named "new" and change the folder icon which has been set default by the system
5. Open word and type a paragraph about yourself and format the text using different fonts and take a print out.

Reference: HSI PUBLICATIONS

Paper.2(Theory)
C programming

Overall objective: At the end of the program the students will be able to understand the basics of C programming.

Specific objective: Student will be able to work & design using C programming.

Unit 1:

Flowcharts, Introduction, Flowchart symbols, Essential flowcharts, Operating System-DOS, Fundamentals of basic programming.

Unit 2:

Introduction to basic, Getting basic programming environment, Variables & constants, Operators, Programming techniques in basic.

UNIT 3:

Statements, Control structures, Essential basic programming, Introduction to C programming, Introduction, Concepts/aspects in c language, Typing compiling running, Getting c programming environment.

UNIT 4:

Statement in c language, Variables, Constants, Operators & control structures, Looping Statements.

UNIT 5:

Arrays, Simple c programming, Project activity.

Practical: (It will be assessed as part of internal assessment)

1. Draw a Flow Chart to implement Adding of three numbers program.
What are the tasks of Kernel and Scheduler?
2. Write a C Program to swap two variable values without using a third variable.
3. Write a C Program to implement the Greatest of three numbers using If-else statement.
4. Write a C Program to implement Fibonacci series.
5. Write a C Program to create student mark list using an Array.

Reference: HSI PUBLICATIONS

Paper.3(Theory)
Basics of C++

Overall objective:

At the end of the program the students will be able to understand the fundamentals of C++ programming.

Specific objective:

Student will be able to implement the application concepts with C++ programming.

UNIT 1:

Introduction: Instructions for use, Basics of C++, Structure of a program, Variables. Data Types., Constants, Operators, Basic Input/Output.

UNIT2: Control Structures: Control, Functions (I), Functions (II).

UNIT3:

Compound Data Types: Arrays, Character Sequences, Pointers, Dynamic Memory, Data Structures, Other Data Types.

UNIT 4:

Object Oriented Programming: Classes (I), Classes (II), Friendship and inheritance, Polymorphism.

UNIT 5:

Advanced Concepts: Templates, Namespaces, Exceptions, Type Casting, Preprocessor directives , C++ Standard Library: Input/Output with files

Practical: (It will be assessed as part of internal assessment)

1. Write a c++ program to add two integers and subtract two integers and print the result.
2. Write a C++ program to get two numbers from the user and check which is the greatest and print the same.
3. Write a C++ program to enter elements into a matrix and add two matrices and print the result.
4. Write a C++ program which creates two classes Student and teacher and make the student class inherit properties from teacher.
5. Write a sample C++ program to show the type casting procedures both implicit and explicit conversions

Reference: HSI PUBLICATIONS

Paper.4(Theory)

HTML

Overall objective:

At the end of the program the students will be able to understand the basics of HTML & create web documents.

UNIT 1:

A brief introduction -Let's get started,What is HTML?-Understand what HTML is and what it means, Elements and tags-Elements and tags what they are and how to use them.

UNIT 2:

Create your first website,Learn to create your first HTML document - the basic template for future pages,Attributes-Learn to add extra information to your tags and formulate commands in a more explicit manner.

UNIT 3:

Links - Discover how to create links to your own and other pages on the Internet. Images-Find out how simple and easy it is to insert images in your pages. Tables-Construct HTML tables for the presentation of structured content. More about tables.

UNIT 4:

Layout (CSS)-Understand how Cascading Style Sheets (CSS) can be used to add fantastic layout to your pages.Uploading pages-Find out how to get your pages published on the Internet so others can access it..

UNIT 5:

Web standards and validation-Learn about the common standard of HTML and how to check your coding is correct.The final tips-A few pieces of good advice for your website projects.

Practical: (It will be assessed as part of internal assessment)

1. How to make a font bold using html tags? Construct a html coding with the usual parts of html ?
2. Create your own web page and name it test.html and insert text inside the body and make the font bolder and also change the background color to blue.
3. Create a page 1.html and provide on the link "Link to 2" and on clicking that it should get redirected to another page 2.html and in 2.html use table to display the days of the week in two columns.(Sl. No and day name)
4. Use css to render better look to the web page you have created. Use the provided css file to make the page attractive and upload your page to internet

5. Check whether the pages created before are properly validated in html and follow the standards.

Reference: G.Dalin. M.Sc software engineering,
J.Thija, **HSI PUBLICATIONS**

Paper.5(Theory)
VISUAL BASIC

Overall objective:

At the end of the program the students will be able to understand the basics of Power Point

Specific objective: Student will be able to work & design using Power Point.

UNIT 1:

Introduction to visual Basic-Introduction, Getting started with Visual basic, Parts of visual basic window, working with design.

Unit 2:

Introduction, working with control without coding, with coding-1, Working with controls, Variables, Constants, Operators.

Unit 3:

Control structures, with coding-2, Looping arrays, String functions, More controls-1,List box, Combo box, Check boxes, Option buttons, and other templates.

Unit 4:

More controls-2, Enterprise controls, Menus & MDI, Menu editor, MDI.

Unit5:

Database, Introduction to database, DAO, Creating tables in access, ADO, SQL basics. Data reports

Practical: (It will be assessed as part of internal assessment)

1. Open visual basic and create a new file and learn to work with the menus and save your same program.
2. Write differences between checkbox and radio button and emphasize the same by a design.
3. Write a sample program for checkbox, list box, combo box
4. Design a menu using visual basic replicating the file menu above.
5. Create a login page for a website with the username and password and verify the credentials from the database using ADO

Reference: HSI PUBLICATIONS

Paper.6(Theory)
COMMUNICATIVE ENGLISH

Objectives

1. Acquiring a new perspective on communicative English
2. Improving and extending the range of communication in English.
3. Acquiring written and speech communication.

Unit I –Grammar in Use: Concepts

Parts of Speech, Tense and Aspect, Mood, Cause, Reason and Purpose, Agreement, Degrees of Comparison, Conditional clauses –Seeking Permission, Request, Command, Reprimand, etc

Unit II–Types of Communication

Verbal Communication –Non-Verbal Communication Language Variety – Geographical, Formal/In formal, Register, Dialect etc.

Unit III–Written Communication

Technical Writing (Writing Reports) Business Communication (letters, memos)

Unit IV–Interpersonal Communication

Dealing with Boss, Dealing with subordinates

Unit V–Oral Communication

Job Interviews, Public Speech, Group Discussions, Brain Storming

References:

- Developing Communication skills-Krishna Mohan & Meera Banerji, Macmillan India Ltd
- How to Write and Speak Better –Reader’s Digest, The Reader’s Digest Association Limited
- The Right Word at the Right Time-Reader’s Digest, The Reader’s Digest Association Limited
- Modern Linguistics, Prof. Krishnaswamy, S.K. Verma, Oxford University Press