



Navodaya Computer Saksharta Mission®

A National Literacy Programme of Information Technology & Skill Development



Member of
Quality Council of India
Computer Society of India

AN ISO 9001 : 2008 CERTIFIED ORGANIZATION

An Autonomous Institution Registered Under Planning Commission-Trust & Societies Act, NCT New Delhi
RJ 2013/00056856, Section 60 (B) 4 VOL 2901/1878 Act, 1882 & ROS/North/091/2010 Act, 1860
Ministry of HRD (Department of Higher Education) Courses Registered Under CR Act

Government of India

Appreciated by

President | Prime Minister | Vice-President
FMO | MHA | MHRD | MCIT | MSME | MSJE | MCA | MMA | CM | Governor

PGDCP

Post Graduate Diploma in Computer Programming

COURSE CODE : CPD-025

COURSE CONTENT & SYLLABUS

H.O. : 3-KHA-4, Sector 3, Vigyan Nagar, Kota-324005, (Rajasthan) India

Tel.: 0744-2412009 Fax: 0744-2411150 Mob. +91 94629 67201

visit us : www.navodayaindia.in | www.ncsm.in | E-mail : contact@ncsm.in, info@ncsm.in



PGDCP

Post Graduate Diploma in Computer Programming

COURSE CONTENTS

COURSE CODE – CPD-025

ELIGIBILITY : 12TH CLASS & ABOVE

DURATION : 1 YEAR

SEMESTER – I

MODULE – 1

MODULE SUBJECT

INFORMATION TECHNOLOGY

SUBJECT CODE – NFC

COMPUTER FUNDAMENTALS

FUNDAMENTAL OF COMPUTER

OPERATING SYSTEM (WINDOWS XP/W7)

MICROSOFT OFFICE (WORD/ EXCEL/POWER POINT)

MS ACCESS WITH DATA BASE DESIGNING

INTERNET & E-MAIL

HARDWARE & SOFTWARE INSTALLATION

INTRODUCTION OF NETWORKING

TYPES OF NETWORKING

USES OF NETWORKING

ENGLISH & HINDI TYPING

MODULE – 2

MODULE SUBJECT

WEB DESIGNING WITH HTML & FRONTPAGE

SUBJECT CODE - NHD

INTRODUCTION OF HTML

HTML & DHTML

DESIGNING OF WEBPAGE & WEBSITE

DESIGNING LIST IN WEBPAGE

INTRODUCTION OF IMAGE, LINK & FRAME TAG

INTRODUCTION OF TABLE & FORM TAG

INTRODUCTION OF DHTML

INTRODUCTION OF MICROSOFT FRONTPAGE

CREATION OF WEBPAGE & WEBSITE

MODULE – 3

MODULE SUBJECT

C LANGUAGE

SUBJECT CODE - NCL

FUNDAMENTAL OF C LANGUAGE

C LANGUAGE

OPERATORS

DECISION MAKING STATEMENT

LOOPING STATEMENT

THE STATEMENT

POST GRADUATE DIPLOMA IN COMPUTER PROGRAMMING

AN ARRAY

FUNCTION

CHARACTER STRING

POINTER

STRUCTURES

SEMESTER – II

MODULE – 4

C++ LANGUAGE

FUNDAMENTAL OF OBJECT ORIENTED PROGRAMMING

PROGRAMMING IN C++

DATA TYPES, VARIABLE, CONSTANT

ARRAY

USER DEFINED FUNCTIONS

MATHEMATICAL & OTHER FUNCTIONS

CLASSES & OBJECTS

CONSTRUCTOR & DESTRUCTOR

POLYMORPHISM

OPERATOR OVERLOADING

INHERITANCE

FILE HANDLING

MODULE – 5

VISUAL BASIC

FUNDAMENTAL OF VISUAL BASIC

ELEMENT OF VISUAL BASIC

PROGRAMMING STATEMENTS

ARRAY N PROCEDURES

CREATION OF PROJECT

ACTIVE X CONTROLS

WORKING WITH FORM

WORKING WITH GRAPHICS

DATABASE PROGRAMMING WITH VISUAL BASIC

MODULE – 6

JAVA

FUNDAMENTAL OF OBJECT ORIENTED PROGRAMMING

JAVA EVOLUTION

OVERVIEW OF JAVA LANGUAGE

CONSTANTS, VARIABLE AND DATA TYPES

OPERATORS & EXPRESSION

DECISION MAKING N LOOPING

CLASSES, OBJECT & METHODS

MODULE SUBJECT

SUBJECT CODE – NCL2

C++ LANGUAGE

MODULE SUBJECT

SUBJECT CODE – NVB

VISUAL BASIC

MODULE SUBJECT

SUBJECT CODE – NJL

JAVA

POST GRADUATE DIPLOMA IN COMPUTER PROGRAMMING

ARRAYS, STRINGS & VECTORS

INTERFACES MULTIPLE INHERITANCE

PACKAGES

MANAGING ERRORS & EXCEPTION

BASIC I/O AND SERIALIZATION

APPLETS

MODULE – 7

MS SQL SERVER 7.0

FUNDAMENTAL OF OBJECT ORIENTED PROGRAMMING

MODULE SUBJECT

SUBJECT CODE – NSQL

SQL SERVER

PGDCP

Post Graduate Diploma in Computer Programming

PGDCP

Post Graduate Diploma in Computer Programming

COURSE SYLLABUS

SEMESTER - I

MODULE -1

INTRODUCTION OF COMPUTER

A. FUNDAMENTAL OF COMPUTER

- A-1 HISTORY OF COMPUTER
- A-2 DEVELOPMENT OF COMPUTER
- A-3 TYPES OF COMPUTER
- A-4 INPUT & OUTPUT DEVICE
- A-5 MEMORY
- A-6 PERSONAL COMPUTER

B. OPERATING SYSTEM

- B-1 INTRODUCTION OF WINDOWS XP, 2007, 2008
- B-2 FUNCTION OF OPERATING SYSTEM
- B-3 TYPES OF OPERATING SYSTEM
- B-4 USER INTERFACE (E.G.: TASKBAR, ICON, START MENU)

C. DESIGN TOOLS & PROGRAMMING LANGUAGE

- C-1 INTRODUCTION OF DESIGN TOOLS
- C-2 INTRODUCTION OF FLOW CHART
- C-3 INTRODUCTION OF PROGRAMMING LANGUAGE

D. MS WORD 2007

- D-1 INTRODUCTION OF WORD PROCESSING
 - D-1.1 STEPS OF WORD PROCESSING
 - D-1.2 OPENING WORD PROCESSING PACKAGES
 - D-1.3 MENU BAR
 - D-1.4 USING SHORTCUT
 - D-1.5 USING BUTTONS/TOOLS
- D-2 OPENING, CLOSING & PRINTING DOCUMENTS
 - D-2.1 OPENING DOCUMENTS
 - D-2.2 SAVE & SAVE AS
 - D-2.3 PAGE SET-UP
 - D-2.4 PRINTING & PREVIEW
- D-3 DOCUMENT CREATION & MANIPULATION
 - D-3.1 DOCUMENT CREATION

POST GRADUATE DIPLOMA IN COMPUTER PROGRAMMING

D-3.2 EDITING TEXT

D-3.3 TEXT SELECTION

D-3.4 CUT, COPY, PASTE

D-3.5 TEXT AND PARAGRAPH DELETION

D-4 TEXTS FORMATTING

D-4.1 TEXT FONT & SIZE CHANGE

D-4.2 ALIGNMENT OF TEXT

D-4.3 CASES CHANGING

D-4.4 ALIGNMENT OF PARAGRAPH

D-4.5 SPACING & COLORING OF PARAGRAPH

D-4.6 BULLETS & INDENTATION

D-5 UPADATION OF PAGE LAYOUT

D-5.1 CHANGE OF ORIENTATION OF PAGE

D-5.2 CHANGE OF SIZE OF PAGE

D-5.3 CREATIONS OF COLUMNS

D-5.4 IMPLEMENT WATERMARKS, PAGE COLOR AND BORDERS

D-6 VIEW & REVIEW DOCUMENT

D-6.1 CHANGE IN LAYOUT

D-6.2 SHOW/HIDE RULERS & GRIDS

D-6.3 IMPLEMENT ZOOM VIEW

D-6.4 REVIEW OF DOCUMENT SUCH AS CHECKING SPELLING & GRAMMAR

D-6.5 IMPLEMENT THE ASURUES, COMMENT

D-7 MAILING DOCUMENT

D-7.1 MAIL MERGE PROCESS

D-7.2 PRINTING & SENDING OF MAILS

D-7.3 CREATION OF ENVELOPS, LETTERS & LABELS

D-8 TABLE MANIPULATION

D-8.1 DRAW TABLE

D-8.2 CHANGING CELL WIDTH & HEIGHT

D-8.3 ALIGNMENT OF TEXT IN CELL

D-8.4 DELETION/INSERTION OF ROW & COLUMN

D-8.5 BORDER & SHADING

E. MS POWERPOINT 2007

E-1 INTRODUCTION OF PRESENTATION

E-1.1 OPENING PRESENTATION

E-1.2 SAVING PRESENTATION

E-1.3 PRINTING PRESENTATION

E-2 CREATION OF PRESENTATION

E-2.1 CREATING A PRESENTATION USING A TEMPLATE

E-2.2 CREATING A BLANK PRESENTATION

E-2.3 ENTERING & EDITING TEXT

E-2.4 INSERTING & DELETING SLIDES IN A PRESENTATION

E-3 PREPARATIONS OF SLIDES

POST GRADUATE DIPLOMA IN COMPUTER PROGRAMMING

E-3.1 ADDING PICTURE, CLIPART, SHAPES

E-3.2 INSERT TABLE, CHART, SMART ART, WORD ART

E-3.3 INSERTING OTHER OBJECTS

E-4 FORMATION OF PRESENTATION

E-4.1 WORKING WITH COLOR & TEXTURES

E-4.2 CHANGE FONT & SIZE OF TEXT

E-4.3 CHANGE ALIGNMENT

E-4.4 IMPLEMENT BULLETS, NUMBERING & INDENTATION

E-4.5 SPACING & CASE CHANGE

E-5 VIEW & REVIEW OF PRESENTATION

E-5.1 IMPLEMENTATION OF LAYOUT

E-5.2 SHOW & HIDE RULERS & GRIDLINES

**E-5.3 REVIEW OF PRESENTATION SUCH AS SPELLING CHECK &
GRAMMAR**

E-5.4 IMPLEMENT THESAURUSES AND COMMENT

E-6 DESIGNING & ANIMATION OF PRESENTATION

E-6.1 IMPLEMENTATION OF ORIENTATION

E-6.2 IMPLEMENTATION OF THEMES & BACKGROUND

E-6.3 IMPLEMENTATION OF ANIMATION & SLIDE TRANSITION

E-6.4 IMPLEMENTATION OF MOVIE & SOUND

E-7 SLIDE SHOWS

E-7.1 RUNNING A SLIDE SHOW

E-7.2 TRANSITION & SLIDE TIMING

E-7.3 AUTOMATING A SLIDE SHOW

Post Graduate Diploma in Computer Programming
F. MS EXCEL 2007

F-1 INTRODUCTION OF MS EXCEL

F-1.1 CREATION OF WORKBOOK

F-1.2 OPENING OF SPREADSHEET

F-1.3 SAVING OF SPREADSHEET

F-1.4 PRINTING OF SPREADSHEET

F-2 MANIPULATIONS OF CELLS

F-2.1 ENTERING TEXTS & DATES

F-2.2 EDITING WORKSHEET DATA

F-2.3 INSERTING & DELETING ROW, COLUMN & SHEETS

F-2.4 CHANGING CELL HEIGHT & WIDTH

F-2.5 FORMATTING OF ROW, COLUMN & SHEETS

F-2.6 IMPLEMENTING SORTING & FILTERING

F-3 FUNCTION & CHARTS

F-3.1 USING FORMULAE'S

F-3.2 USING FUNCTION

F-3.3 USING CHART

F-4 VIEW & REVIEW OF WORKSHEET

F-4.1 APPLYING DIFFERENT LAYOUTS OF WORKSHEET

F-4.2 SHOW/HIDE RULER, GRIDLINES, HEADING

G. MS ACCESS 2007

G-1 INTRODUCTION OF MS ACCESS

G-1.1 INTRODUCTION OF DATABASE

G-1.2 INTRODUCTION PRIMARY KEY

G-1.3 INTRODUCTION OF RELATIONSHIP

G-1.4 CREATION OF DATABASE

G-1.5 OPENING & SAVING OF DATABASE

G-1.6 SAVING & PRINTING OF DATABASE

G-2 INTRODUCTION OF TABLE

G-2.1 INTRODUCTION OF TABLE

G-2.2 INTRODUCTIONS OF DATA TYPES

G-2.3 INTRODUCTION OF TYPES OF DATA TYPES

G-2.4 CREATION OF TABLE

G-2.5 OPENING & SAVING OF TABLE

G-2.6 SAVING & PRINTING OF TABLE

G-3 INTRODUCTION OF QUERY

G-3.1 INTRODUCTION OF QUERY

G-3.2 CREATION OF QUERY

G-3.3 OPENING & SAVING OF QUERY

G-3.4 SAVING & PRINTING OF QUERY

G-3.5 FORMATTING OF QUERY

G-4 INTRODUCTION OF FORM

G-4.1 INTRODUCTION OF FORM

G-4.2 CREATION OF FORM

G-4.3 OPENING & SAVING OF FORM

G-4.4 SAVING & PRINTING OF FORM

G-4.5 FORMATTING OF FORM

G-5 INTRODUCTION OF REPORT

G-5.1 INTRODUCTION OF REPORT

G-5.2 CREATION OF REPORT

G-5.3 OPENING & SAVING OF REPORT

G-5.4 SAVING & PRINTING OF REPORT

G-5.5 FORMATTING OF REPORT

H. COMMUNICATION

H-1 INTRODUCTION OF COMMUNICATION

H-1.1 TYPES OF COMMUNICATION

H-1.2 PROCESS OF COMMUNICATION

H-1.3 ONLINE & OFFLINE OF COMMUNICATION

H-2 INTRODUCTION OF E-MAIL

H-2.1 USING OF E-MAIL

POST GRADUATE DIPLOMA IN COMPUTER PROGRAMMING

H-2.2 PROCESS OF SENDING & RECEIVING OF E-MAIL

H-2.3 PROCESS OF ATTACHMENT OF DOCUMENT WITH E-MAIL

H-2.4 CREATION & LOGIN PROCESS OF E-MAIL ACCOUNT

H-2.5 DIFFERENT TRANSMISSION MEDIUM

I. NETWORK & INTERNET

I-1 INTRODUCTION OF NETWORK

I-1.1 TYPES OF NETWORK

I-1.2 TYPES OF NETWORK TOPOLOGY

I-2 INTRODUCTION OF INTERNET

I-2.1 BASIC STRUCTURE OF INTERNET ARCHITECTURE

I-2.2 INTRODUCTION OF INTERNET SERVICE PROVIDER

I-2.3 INTRODUCTIONS OF INTERNET PROTOCOLS

I-3 SERVICE ON INTERNET

I-3.1 WORLD WIDE WEB & WEBSITES

I-3.2 INTERNET SERVICES

I-3.3 COMMUNICATIONS ON INTERNET

I-4 PREPARING COMPUTER FOR INTERNET ACCESS

I-4.1 ISP'S SUCH AS DIAL-UP/BROADBAND/WI-FI

I-4.2 ACCESS TECHNIQUES

I-5 WEB BROWSERS

I-5.1 INTRODUCTION OF WEB BROWSER

I-5.2 INTRODUCTION OF POPULAR WEB BROWSING SOFTWARE

I-5.3 CONFIGURING WEB BROWSER

I-6 SEARCH ENGINE

I-6.1 INTRODUCTION OF SEARCH ENGINE

I-6.2 SURFING/ SEARCHING OF CONTENTS

I-6.3 DOWNLOADING/UPLOADING

I-6.4 PRINTING THE WEBPAGE

MODULE - 2

WEB DESIGNING WITH HTML & FRONTPAGE

A. INTRODUCTION OF HTML

A-1 CONCEPT OF HTML

A-2 CONCEPT OF WEB BROWSER

A-3 CONCEPT OF CLIENT & SERVER ARCHITURERE

A-4 CONCEPT OF URL

A-5 STRUCTURE OF WEBPAGE

A-6 CONCEPT OF TAGS & ATTRIBUTES

B. DESIGNING OF WEBPAGE & WEBSITE

B-1 INTRODUCTION OF WEBPAGE & WEBSITE

B-2 TYPES OF TAGS & ATTRIBUTES

B-3 CREATION OF WEBPAGE

B-4 INTRODUCTION OF BASIC TAGS

POST GRADUATE DIPLOMA IN COMPUTER PROGRAMMING

B-5 INTRODUCTION OF HEADING TAG

B-6 INTRODUCTION OF FORMATTING TAG

B-7 INTRODUCTION OF PARAGRAPH & FONT TAG

C. DESIGNING LIST IN WEBPAGE

C-1 INTRODUCTION OF LISTS

C-2 INTRODUCTION OF ORDERED LIST

C-3 CREATION OF WEBPAGE BY ORDERED LIST

C-4 INTRODUCTION OF UNORDERED LIST

C-5 CREATION OF WEBPAGE BY UNORDERED LIST

C-6 INTRODUCTION OF DEFINITION LIST

C-7 CREATION OF WEBPAGE BY DEFINITION LIST

C-8 INTRODUCTION OF HORIZONTAL ROW

C-9 CREATION OF WEBPAGE BY HORIZONTAL ROW

C-10 INTRODUCTION OF ADDRESS TAG

C-11 CREATION OF WEBPAGE BY ADDRESS TAG

D. IMAGE TAG

D-1 INTRODUCTION OF IMAGE TAG

D-2 INTRODUCTION OF DIFFERENT ATTRIBUTES OF IMAGE TAG

D-3 CREATION OF WEBPAGE USING IMAGE TAG

D-4 INTRODUCTION OF IMAGE MAP

D-5 INTRODUCTION OF DIFFERENT ATTRIBUTES OF IMAGE MAP

D-6 CREATION OF WEBPAGE USING IMAGE MAP

E. LINK TAG

E-1 INTRODUCTION OF LINK

E-2 INTRODUCTION OF TYPES OF LINK

E-3 INTRODUCTION OF INTERNAL & EXTERNAL LINK

E-4 CREATION OF WEBPAGE THROUGH LINK

E-5 CONCEPT OF HYPERLINK

E-6 INTRODUCTION OF LINK OF DIFFERENT WEBPAGES

E-7 INTRODUCTION OF IMAGE LINK

E-8 CREATION OF WEBPAGE USING IMAGE LINK

F. FRAME TAG

F-1 INTRODUCTION OF FRAME TAG

F-2 INTRODUCTION OF DIFFERENT ATTRIBUTES OF FRAME TAG

F-3 CREATION OF WEBPAGE USING FRAME TAG AS ROW & COLUMN WISE

F-4 INTRODUCTION OF DIFFERENT TYPES OF FRAME

G. TABLE TAG

G-1 INTRODUCTION OF TABLE TAG

G-2 INTRODUCTION OF ATTRIBUTES OF TABLE TAG

POST GRADUATE DIPLOMA IN COMPUTER PROGRAMMING

G-3 INTRODUCTION OF ALIGNMENT, BACKGROUND OF TABLE

G-4 INTRODUCTION OF CELL PADDING, CELL SPACING OF TABLE

G-5 INTRODUCTION OF HEADING & CAPTION OF TABLE

G-6 INTRODUCTION OF EMPTY CELL OF TABLE

G-7 INTRODUCTION OF NESTING OF TABLE

G-8 INTRODUCTION OF FRAME OF TABLE

G-9 CREATION OF WEBPAGE USING TABLE TAG

H. FORM TAG

H-1 INTRODUCTION OF FORM TAG

H-2 INTRODUCTION OF DIFFERENT ATTRIBUTE OF FORM TAG

H-3 CREATION OF FORM USING FORM TAG

I. DHTML

I-1 INTRODUCTION OF DHTML

I-2 INTRODUCTION OF CASCADING STYLE SHEETS

I-3 INTRODUCTION OF ATTRIBUTES OF STYLE

I-4 CREATION OF WEBPAGE USING DIFFERENT ATTRIBUTES OF STYLE

MODULE -3

C LANGUAGE

A. FUNDAMENTAL OF C LANGUAGE

A-1 HISTORY OF C LANGUAGE

A-2 FEATURES OF C LANGUAGE

A-3 BASIC STRUCTURE OF C LANGUAGE

A-4 PROGRAM DEVELOPMENT OF C LANGUAGE

A-5 COMPONENTS OF C LANGUAGE

A-6 C TOKENS

A-7 TYPES OF DATA TYPES

A-8 INTRODUCTION OF ESCAPE SEQUENCES

A-9 INTRODUCTION OF FORMAT SPECIFIERS

A-10 INTRODUCTION OF STANDARD INPUT & OUTPUT FUNCTION

A-11 EXAMPLES OF C PROGRAM

B. OPERATORS

B-1 INTRODUCTION OF OPERATORS

B-2 TYPES OF OPERATORS

B-3 WORKING WITH ASSIGNMENT OPERATOR

B-4 WORKING WITH ARITHMETIC OPERATOR

B-5 WORKING WITH ADDRESS OPERATOR

B-6 WORKING WITH RELATIONAL OPERATOR

B-7 WORKING WITH LOGICAL OPERATOR

B-8 WORKING WITH SIZE OF OPERATOR

B-9 WORKING WITH CONDITIONAL OPERATOR

B-10 WORKING WITH INCREMENT/DECREMENT OPERATOR

B-11 WORKING WITH UNARY MINUS OPERATOR

C. DECISION MAKING STATEMENT

C-1 INTRODUCTION OF STATEMENT

C-2 TYPES OF STATEMENT

C-3 DECISION STATEMENT

C-3.I DECISION STATEMENT WITH IF STATEMENT

C-3.II STRUCTURE & SYNTAX OF IF STATEMENT

C-3.III CREATION OF PROGRAM WITH IF STATEMENT

C-4

C-4.I DECISION STATEMENT WITH IF ELSE STATEMENT

C-4.II STRUCTURE & SYNTAX OF IF ELSE STATEMENT

C-4.III CREATION OF PROGRAM WITH IF ELSE STATEMENT

C-5

C-5.I DECISION STATEMENT WITH NESTED IF ELSE STATEMENT

C-5.II STRUCTURE & SYNTAX OF NESTED IF ELSE STATEMENT

C-5.III CREATION OF PROGRAM WITH NESTED IF ELSE STATEMENT

C-6

C-6.I DECISION STATEMENT WITH ELSE IF LADDER STATEMENT

C-6.II STRUCTURE & SYNTAX OF ELSE IF LADDER STATEMENT

C-6.III CREATION OF PROGRAM WITH ELSE IF LADDER STATEMENT

C-7

C-7.I DECISION STATEMENT WITH SWITCH STATEMENT

C-7.II STRUCTURE & SYNTAX OF SWITCH STATEMENT

C-7.III CREATION OF PROGRAM WITH SWITCH STATEMENT

D. LOOPING STATEMENT

D-1 INTRODUCTION OF LOOPING STATEMENT

D-2 TYPES OF LOOPING STATEMENT

D-3 WHILE LOOP

D-3.I INTRODUCTION OF WHILE LOOP STATEMENT

D-3.II STRUCTURE & SYNTAX OF WHILE LOOP STATEMENT

D-3.III CREATION OF PROGRAM WITH WHILE LOOP STATEMENT

D-4 DO WHILE STATEMENT

D-4.I INTRODUCTION OF DO WHILE LOOP STATEMENT

D-4.II STRUCTURE & SYNTAX OF DO WHILE LOOP STATEMENT

D-4.III CREATION OF PROGRAM WITH DO WHILE LOOP STATEMENT

D-5 FOR LOOP STATEMENT

D-5.I INTRODUCTION OF FOR LOOP STATEMENT

D-5.II STRUCTURE & SYNTAX OF FOR LOOP STATEMENT

D-5.III CREATION OF PROGRAM WITH FOR LOOP STATEMENT

D-6 NESTED FOR LOOP STATEMENT

D-6.I INTRODUCTION OF NESTED FOR LOOP STATEMENT

D-6.II STRUCTURE & SYNTAX OF NESTED FOR LOOP STATEMENT

D-6.III CREATION OF PROGRAM WITH NESTED FOR LOOP STATEMENT

E. THE STATEMENT

E-1 INTRODUCTION OF STATEMENT

E-2 INTRODUCTION OF JUMP STATEMENT

E-3 INTRODUCTION OF BREAK STATEMENT

E-4 STRUCTURE & SYNTAX OF BREAK STATEMENT

E-5 PROGRAM CREATION USING BREAK STATEMENT

E-6 INTRODUCTION OF CONTINUE STATEMENT

E-7 STRUCTURE & SYNTAX OF CONTINUE STATEMENT

E-8 PROGRAM CREATION USING CONTINUE STATEMENT

F. AN ARRAY

F-1 INTRODUCTION OF ARRAY

F-2 TYPES OF ARRAY

F-3 ONE DIMENSIONAL ARRAY

F-3.I INTRODUCTION OF ONE DIMENSIONAL ARRAY

F-3.II DECLARATION OF ONE DIMENSIONAL ARRAY

F-3.III INITIALISATION OF ONE DIMENSIONAL ARRAY

F-3.IV PROGRAM CREATION USING ONE DIMENSIONAL ARRAY

F-4 TWO DIMENSIONAL ARRAY

F-4.I INTRODUCTION OF TWO DIMENSIONAL ARRAY

F-4.II DECLARATION OF TWO DIMENSIONAL ARRAY

F-4.III INITIALISATION OF TWO DIMENSIONAL ARRAY

F-4.IV PROGRAM CREATION USING TWO DIMENSIONAL ARRAY

G. FUNCTION

G-1 INTRODUCTION OF FUNCTION

G-2 TYPES OF FUNCTION

G-3 ADVANTAGES OF FUNCTION

G-4 IMPLEMENTATION OF FUNCTION

G-5 DECLARATION OF FUNCTION

G-6 CALLING A FUNCTION

G-7 DEFINING OF USER DEFINED FUNCTION

G-8 INTRODUCTION OF ACTUAL PARAMETER

G-9 INTRODUCTION OF FORMAL PARAMETER

G-10 INTRODUCTION OF CALLING FUNCTION

G-11 INTRODUCTION OF CALLED FUNCTION

G-12 PROGRAM CREATION USING FUNCTION

G-13 CALLING A FUNCTION

G-13.I INTRODUCTION OF CALLING A FUNCTION

G-13.II INTRODUCTION OF CALL BY VALUE

G-13.III PROGRAM CREATION USING CALL BY VALUE

G-13.IV INTRODUCTION OF CALL BY REFERENCE

G-13.V PROGRAM CREATION USING CALL BY REFERENCE

G-13.VI FUNCTION WITH NO ARGUMENTS AND NO RETURN VALUE

G-13.VII FUNCTION WITH ARGUMENTS AND NO RETURN VALUE

G-13.VIII FUNCTION WITH NO ARGUMENTS AND RETURN VALUE

G-13.IX FUNCTION WITH ARGUMENTS AND RETURN VALUE

G-14 ARRAY & FUNCTION

G-14.I INTRODUCTION OF ARRAY & FUNCTION

G-14.II DECLARATION OF ARRAY & FUNCTION

G-14.III PROGRAM CREATION USING ARRAY & FUNCTION

G-15 RECURSIVE FUNCTION

G-15.I INTRODUCTION OF RECURSIVE FUNCTION

G-15.II DECLARATION OF RECURSIVE FUNCTION

G-15.III PROGRAM CREATION USING RECURSIVE FUNCTION

G-16 STORAGE CLASSES

G-16.I INTRODUCTION OF STORAGE CLASSES

POST GRADUATE DIPLOMA IN COMPUTER PROGRAMMING

G-16.II TYPES OF STORAGE CLASSES

G-16.III INTRODUCTION OF AUTOMATIC VARIABLE

G-16.IV INTRODUCTION OF EXTERNAL VARIABLE

G-16.V INTRODUCTION OF STATIC VARIABLE

G-16.VI INTRODUCTION OF REGISTER VARIABLE

H. CHARACTER STRING

H-1 INTRODUCTION OF STRING

H-2 DECLARATION & INITIALISATION OF STRING VARIABLE

H-3 READING STRING FROM TERMINAL

H-4 WRITING STRING TO SCREEN

H-5 STRING HANDLING LIBRARY FUNCTION

H-6 PROGRAM CREATION USING CHARACTER STRINGS

H-7 2-D STRING ARRAY

H-7.I INTRODUCTION OF 2-D STRING ARRAY

H-7.II DECLARATION OF 2-D STRING ARRAY

H-7.III PROGRAM CREATION USING 2-D STRING ARRAY

I. POINTER

I-1 INTRODUCTION OF POINTER

I-2 ADVANTAGES OF POINTER

I-3 ACCESSING THE ADDRESS OF VARIABLE

I-4 DECLARATION & INITIALIZATION POINTER

I-5 ACCESSING A VARIABLE VALUE THROUGH ITS POINTER

I-6 PROGRAM CREATION USING POINTER

I-7 POINTER & ARRAY

I-7.I INTRODUCTION OF POINTER & ARRAY

I-7.II DECLARATION ARRAY WITH POINTER

I-7.III PROGRAM CREATION USING POINTER & ARRAY

I-8 POINTER & CHARACTER STRINGS

I-8.I INTRODUCTION OF POINTER & CHARACTER STRINGS

I-8.II PROGRAM CREATION USING POINTER & CHARACTER STRINGS

I-9 CALL BY REFERENCE

I-9.I INTRODUCTION OF CALL BY REFERENCE

I-9.II PROGRAM CREATION USING CALL BY REFERENCE

J. STRUCTURES

J-1 INTRODUCTION OF STRUCTURE

J-2 DEFINING A STRUCTURE

J-3 DECLARING STRUCTURE VARIABLE

J-4 ACCESSING STRUCTURE MEMBERS

J-5 INPUT VALUE IN MEMBERS

J-6 OUTPUT VALUE IN MEMBERS

J-7 STRUCTURE INITIALIZATION

J-8 STRUCTURE & SYNTAX OF STRUCTURES

J-9 PROGRAM CREATION USING STRUCTURE

J-10 STRUCTURE & ARRAY

J-10.I INTRODUCTION OF STRUCTURE & ARRAY

J-10.II STRUCTURE N SYNTAX OF STRUCTURE N ARRAY

POST GRADUATE DIPLOMA IN COMPUTER PROGRAMMING

J-10.III PROGRAM CREATION USING STRUCTURE & ARRAY

J-11 STRUCTURE WITHIN STRUCTURE

J-11.I INTRODUCTION OF STRUCTURE WITHIN STRUCTURES

J-11.II STRUCTURE N SYNTAX OF STRUCTURE WITHIN STRUCTURES

J-11.III DEFINING OF STRUCTURE WITHIN STRUCTURE

J-11.IV PROGRAM CREATION USING STRUCTURE WITHIN STRUCTURE

J-12 STRUCTURE & FUNCTION

J-12.I INTRODUCTION OF STRUCTURE & FUNCTION

J-12.II STRUCTURE N SYNTAX OF STRUCTURE & FUNCTION

J-12.III DEFINING OF STRUCTURE & FUNCTION

J-12.IV PROGRAM CREATION USING STRUCTURE & FUNCTION

SEMESTER - II

MODULE -4

C++ LANGUAGE

A. FUNDAMENTAL OF OBJECT ORIENTED PROGRAMMING

A-1 INTRODUCTION OF OOP'S

A-2 FEATURES OF OOP'S

A-3 INTRODUCTION OF OBJECTS

A-4 INTRODUCTION OF CLASSES

A-5 INTRODUCTION OF INHERITANCE

A-6 INTRODUCTION OF REUSABILITY

A-7 INTRODUCTION OF OVERLOADING

A-8 CONCEPT OF OBJECTS & CLASSES

B. PROGRAMMING IN C++

B-1 INTRODUCTION OF PROGRAMMING

B-2 INTRODUCTION OF CHARACTER SET

B-3 INTRODUCTION OF C++ TOKENS

B-4 STRUCTURE OF C++ PROGRAM

B-5 INTRODUCTION OF FUNCTION

B-6 INTRODUCTION OF HEADER FILES

B-7 INTRODUCTION OF INPUT/OUTPUT OF C++

B-8 USE OF MANIPULATORS

B-9 USE OF EDITOR

B-10 USE OF BASIC COMMANDS OF EDITORS

B-11 INTRODUCTION OF COMPILING & LINKING

C. DATA TYPES, VARIABLE, CONSTANT

C-1 INTRODUCTION OF CONSTANTS

C-2 TYPES OF CONSTANTS

C-3 INTRODUCTION OF DATA TYPES

C-4 TYPES OF DATA TYPES

C-5 INTRODUCTION OF VARIABLE & INITIALIZATION OF VARIABLE

C-6 INTRODUCTION OF OPERATORS & EXPRESSIONS

C-7 TYPES OF OPERATORS & EXPRESSIONS

POST GRADUATE DIPLOMA IN COMPUTER PROGRAMMING

- C-8 PROGRAM CREATION USING OPERATORS & EXPRESSION**
- C-9 INTRODUCTION OF AUTOMATIC TYPE CONVERSION IN EXPRESSION**
- C-10 INTRODUCTION OF TYPE CASTING**
- C-11 INTRODUCTION OF SHORTHANDS OF C++**
- C-12 INTRODUCTION OF CONDITIONAL EXPRESSION**
- C-13 INTRODUCTION OF NESTED IF**
- C-14 INTRODUCTION OF SWITCH CASE DEFAULT**
- C-15 PROGRAM CREATION USING CONDITIONAL EXPRESSION**
- C-16 INTRODUCTION OF BREAK STATEMENT**
- C-17 INTRODUCTION OF LOOP**
- C-18 INTRODUCTION OF WHILE, DO WHILE & FOR LOOP**
- C-19 PROGRAM CREATION USING LOOPS**

D. ARRAY

- D-1 INTRODUCTION OF ARRAY**
- D-2 NEED OF ARRAY**
- D-3 TYPES OF ARRAY**
- D-4 DECLARATION OF ARRAY**
- D-5 INITIALISATION OF ONE DIMENSIONAL ARRAY**
- D-6 INTRODUCTION N EXAMPLE OF AVERAGE OF ARRAY ELEMENTS**
- D-7 INTRODUCTION N EXAMPLE OF LINEAR SEARCHING**
- D-8 INTRODUCTION N EXAMPLE OF FINDING MAX/MIN VALUE FROM ARRAY**
- D-9 DECLARATION OF STRING**
- D-10 INITIALISATION OF STRING**
- D-11 COUNTING VOWELS/CONSTANTS/DIGITS/SPECIAL CHARACTERS**
- D-12 INTRODUCTION OF ISALNUM, ISALPHA, ISDIGIT, ISLOWER, ISUPPER, TOLOWER, TOUPPER, STRCPY, STRCAT, STRLEN, STRCMP**
- D-13 INTRODUCTION OF 2-D ARRAY**
 - D-13.I DECLARATION OF 2-D ARRAY**
 - D-13.II INITIALIZATION OF 2-D ARRAY**
 - D-13.III INTRODUCTION OF DIAGONAL ELEMENTS**

E. USER DEFINED FUNCTIONS

- E-1 INTRODUCTION OF USER DEFINED FUNCTION**
- E-2 DEFINING OF USER DEFINED FUNCTION**
- E-3 INTRODUCTION OF FUNCTION PROTOTYPE**
- E-4 INTRODUCTION OF CALLING A FUNCTION**
- E-5 INTRODUCTION OF DEFAULT ARGUMENT**
- E-6 INTRODUCTION OF CONSTANT ARGUMENT**
- E-7 INTRODUCTION OF CALL BY VALUE**
- E-8 INTRODUCTION OF CALL BY REFERENCE**
- E-9 INTRODUCTION OF RETURNING VALUE FROM A FUNCTION**
- E-10 INTRODUCTION OF CALLING A FUNCTION WITH ARRAY**
- E-11 INTRODUCTION OF SCOPE RULE OF FUNCTION & VARIABLE**

F. MATHEMATICAL & OTHER FUNCTIONS

- F-1 INTRODUCTION OF MATHEMATICAL FUNCTION**
- F-2 INTRODUCTION OF STANDARD LIBRARY FILE**

G. CLASSES & OBJECTS

- G-1 INTRODUCTION OF CLASSES
- G-2 INTRODUCTION OF SPECIFYING A CLASS
- G-3 DECLARATION OF CLASSES
- G-4 DEFINITION OF CLASSES INSIDE/ OUTSIDE
- G-5 DECLARATION OF OBJECTS
- G-6 ACCESSING CLASS MEMBER
- G-7 DEFINING MEMBER FUNCTION
- G-8 MAKING AN OUTSIDE INLINE FUNCTION
- G-9 NESTING OF MEMBER FUNCTION
- G-10 PRIVATE MEMBER FUNCTION
- G-11 ARRAY WITHIN A CLASS
- G-12 MEMORY ALLOCATION OF OBJECTS
- G-13 STATIC DATA MEMBERS & FUNCTION MEMBERS
- G-14 ARRAY OF OBJECTS
- G-15 OBJECTS AS FUNCTION
- G-16 RETURNING OBJECTS

H. CONSTRUCTOR & DESTRUCTOR

- H-1 INTRODUCTION OF CONSTRUCTOR
- H-2 SYNTAX N EXAMPLE OF CONSTRUCTOR
- H-3 INTRODUCTION OF DESTRUCTOR
- H-4 INTRODUCTION OF OBJECT & MEMORY
- H-5 INTRODUCTION OF STRUCTURE & CLASS
- H-6 INTRODUCTION OF FREE STORE IN C++
- H-7 INTRODUCTION OF FUNCTION OVERLOADING
- H-8 INTRODUCTION OF COPY CONSTRUCTOR

I. POLYMORPHISM

- I-1 INTRODUCTION OF POLYMORPHISM
- I-2 ADVANTAGES OF POLYMORPHISM
- I-3 TYPES OF POLYMORPHISM
- I-4 INTRODUCTION OF VIRTUAL FUNCTION
- I-5 SYNTAX N EXAMPLE OF VIRTUAL FUNCTION

J. OPERATOR OVERLOADING

- J-1 INTRODUCTION OF OVERLOADING
- J-2 TYPES OF OVERLOADING
- J-3 INTRODUCTION OF FUNCTION OVERLOADING
- J-4 SYNTAX N EXAMPLE OF FUNCTION OVERLOADING
- J-5 INTRODUCTION OF OPERATOR OVERLOADING
- J-6 SYNTAX N EXAMPLE OF OPERATOR OVERLOADING

K. INHERITANCE

- K-1 INTRODUCTION OF INHERITANCE
- K-2 SYNTAX N EXAMPLE OF INHERITANCE
- K-3 TYPES OF INHERITANCE
- K-4 INTRODUCTION N EXAMPLE OF SIMPLE INHERITANCE
- K-5 INTRODUCTION N EXAMPLE OF MULTIPLE INHERITANCE
- K-6 INTRODUCTION N EXAMPLE OF HIERARCHICAL INHERITANCE

L. FILE HANDLING

- L-1 INTRODUCTION OF DATA FILE
- L-2 INTRODUCTION OF TEXT FILE
- L-3 INTRODUCTION OF BINARY FILE
- L-4 INTRODUCTION OF INPUT/OUTPUT STREAM
- L-5 INTRODUCTION OF OPENING & DECLARATION OF FILE
- L-6 INTRODUCTION OF CLOSING FILE
- L-7 INTRODUCTION OF TEXT FILE
- L-8 INTRODUCTION OF CHECKING STATE FLAGS
- L-9 READING N WRITING A TEXT FILE USING FSTREAM CLASS
- L-10 EXAMPLES OF FILE HANDLING

MODULE -5

VISUAL BASIC

A. FUNDAMENTAL OF VISUAL BASIC

- A-1 INTRODUCTION OF VISUAL BASIC
- A-2 GETTING START WITH VISUAL BASIC
- A-3 LOADING PROCESS OF VISUAL BASIC
- A-4 INTRODUCTION OF INTEGRATED DEVELOPMENT ENVIRONMENT
- A-5 FEATURES OF VISUAL BASIC
- A-6 ELEMENTS OF VISUAL BASIC
- A-7 INTRODUCTION OF TOOL BAR
- A-8 INTRODUCTION OF DIFFERENT WINDOWS OF VISUAL BASIC
- A-9 THE APPLICATION WIZARD

B. ELEMENT OF VISUAL BASIC

- B-1 INTRODUCTION OF DATA TYPES
- B-2 INTRODUCTION OF TYPE STATEMENTS
- B-3 INTRODUCTION N DECLARATION OF VARIABLE
- B-4 INTRODUCTION OF SCOPE N LIFE TIME OF A VARIABLE
- B-5 INTRODUCTION OF CONSTANTS

C. PROGRAMMING STATEMENTS

- C-1 INTRODUCTION OF OPERATORS
- C-2 TYPES OF OPERATORS
- C-3 INTRODUCTION OF AN ARITHMETIC OPERATOR
- C-4 FORM N CODING OF AN ARITHMETIC OPERATOR
- C-5 INTRODUCTION FORM N CODING OF COMPARISON OPERATOR
- C-6 INTRODUCTION FORM N CODING OF LOGICAL OPERATOR
- C-7 INTRODUCTION OF CONTROL STRUCTURE
- C-8 INTRODUCTION SYNTAX N CODING OF IF THEN END IF
- C-9 INTRODUCTION SYNTAX N CODING OF IF THEN ELSE END IF
- C-10 INTRODUCTION SYNTAX N CODING OF SELECT CASE
- C-11 INTRODUCTION SYNTAX N CODING OF LOOPING STATEMENT
- C-12 INTRODUCTION OF INPUT/OUTPUT BOX

D. ARRAY N PROCEDURES

POST GRADUATE DIPLOMA IN COMPUTER PROGRAMMING

D-1 INTRODUCTION OF ARRAY

D-2 DECLARATION OF ARRAY

D-3 TYPES OF ARRAY

D-4 INTRODUCTION N EXAMPLE OF SINGLE DIMENSIONAL ARRAY

D-5 INTRODUCTION N EXAMPLE OF MULTI DIMENSIONAL ARRAY

D-6 INTRODUCTION OF DYNAMIC ARRAY

D-7 INTRODUCTION OF SORTING

D-8 INTRODUCTION OF CONTROL ARRAY

D-9 INTRODUCTION OF COLLECTION

D-10 INTRODUCTION OF PROCEDURES

D-11 ADVANTAGES OF PROCEDURES

D-12 TYPES OF PROCEDURES

D-13 INTRODUCTION OF SUB N FUNCTION PROCEDURES

D-14 INTRODUCTION OF SUB ROUTINE

D-15 CODING RELATED PROCEDURES

E. CREATION OF PROJECT

E-1 INTRODUCTION OF PROJECT

E-2 ELEMENTS OF PROJECT

E-3 CREATION RENAMING & SAVING OF PROJECT

E-4 CREATION OF USER INTERFACE

E-5 ELEMENTS OF USER INTERFACE

E-6 INTRODUCTION OF FILE SYSTEM CONTROLS

E-7 DESIGNING THE USER INTERFACE

E-8 CREATION AN APPLICATION

E-9 INTRODUCTION OF EVENT DRIVEN PROGRAMMING & COMMON PROPERTIES, METHODS & EVENTS OF VISUAL BASIC

F. ACTIVE X CONTROLS

F-1 INTRODUCTION OF BASIC ACTIVE X CONTROLS

F-2 INTRODUCTION & PROPERTIES OF TEXT BOX

F-3 INTRODUCTION, METHODS & PROPERTIES OF LIST BOX

F-4 INTRODUCTION, METHODS & PROPERTIES OF COMBO BOX

F-5 INTRODUCTION, METHODS & PROPERTIES OF SCROLL BAR

F-6 INTRODUCTION, METHODS & PROPERTIES OF LABEL

F-7 INTRODUCTION, METHODS & PROPERTIES OF COMMAND BUTTON

F-8 INTRODUCTION OF GROUPING CONTROLS

F-9 INTRODUCTION & PROPERTIES OF OPTION BUTTON

F-10 INTRODUCTION & PROPERTIES OF FRAME CONTROLS

F-11 INTRODUCTION & PROPERTIES OF CHECK CONTROLS

F-12 INTRODUCTION & PROPERTIES OF LINE TOOLS

F-13 INTRODUCTION & PROPERTIES OF SHAPE TOOLS

F-14 INTRODUCTION & PROPERTIES OF PICTURE BOX

F-15 INTRODUCTION & PROPERTIES OF IMAGE BOX

F-16 INTRODUCTION & PROPERTIES OF COMMON DIALOGS

F-17 INTRODUCTION & PROPERTIES OF COLOR DIALOG BOX

F-18 INTRODUCTION & PROPERTIES OF FONT DIALOG BOX

F-19 INTRODUCTION & PROPERTIES OF OPEN & SAVE DIALOG BOX

F-20 INTRODUCTION & PROPERTIES OF PRINT, HELP & IMAGE LIST CONTROL

F-21 INTRODUCTION & PROPERTIES OF TREE VIEW & LIST VIEW

G. WORKING WITH FORM

- G-1 INTRODUCTION OF FORMS
- G-2 APPEARANCE OF FORMS
- G-3 INTRODUCTION OF FORM PROPERTIES, METHODS, EVENTS
- G-4 INTRODUCTION OF MENUS
- G-5 DESIGNING MENU USING MENU EDITOR
- G-6 ADDING SUB MENU & NESTED MENU
- G-7 INTRODUCTION OF ACCESS & SHORTCUT KEYS
- G-8 CONNECTING MENUS TO EVENT PROCEDURES

H. WORKING WITH GRAPHICS

- H-1 INTRODUCTION OF GRAPHICS
- H-2 TYPES OF GRAPHIC
- H-3 INTRODUCTION OF GRAPHIC CONTROLS
- H-4 INTRODUCTION OF LOOPING & SAVING IMAGES
- H-5 EXCHANGE IMAGE THROUGH CLIP BOARD
- H-6 INTRODUCTION OF CO-ORDINATE SYSTEM
- H-7 INTRODUCTION OF WIDTH & HEIGHT PROPERTY
- H-8 INTRODUCTION OF GRAPHICS METHODS
- H-9 INTRODUCTION OF ERROR HANDLING
- H-10 TYPES OF ERROR
- H-11 CREATION OF MDI FORMS
- H-12 INTRODUCTION OF ERROR HANDLER

I. DATABASE PROGRAMMING WITH VISUAL BASIC

- I-1 INTRODUCTION OF DATABASE PROGRAMMING
- I-2 DESIGNING A DATABASE
- I-3 OBJECTIVES OF DATABASE DESIGN
- I-4 ORGANISING THE DATA
- I-5 INTRODUCTION OF TABLES, VISUAL DATA MANAGER & CREATING A DATABASE FILE
- I-6 INTRODUCTION OF DATA CONTROL
- I-7 ADDING DATA CONTROL TO THE FORM
- I-8 SELECTING A DATABASE & RECORDSET
- I-9 INTRODUCTION OF BOUND CONTROLS
- I-10 ADDING BOUND CONTROLS TO A FORM
- I-11 USING BOUND CONTROL TO DISPLAY DATA
- I-12 INTRODUCTION OF DATA ACCESS OBJECT
- I-13 ADDING DAO TO PROJECT
- I-14 WORKING WITH ODBC
- I-15 WORKING WITH ODBC DRIVERS, SETTING AN ODBC DATA SOURCE ACCESS ODBC DRIVERS
- I-16 CREATING AN ODBC SOURCES
- I-17 INTRODUCTION OF ACTIVE X OBJECTS
- I-18 INTRODUCTION OF DATA CONNECTION METHODS
- I-19 ADDING ADD WITH PROJECT
- I-20 INTRODUCTION OF ADD DATA CONTROL

JAVA

A. FUNDAMENTAL OF OBJECT ORIENTED PROGRAMMING

- A-1 INTRODUCTION OF OOP'S & ITS PARADIGM
- A-2 INTRODUCTION OF BASIC CONCEPT OF OBJECTS & CLASSES, DATA ABSTRACTION & ENCAPSULATION ,INHERITANCE & POLYMORPHISM
- A-3 INTRODUCTION OF COMPILE N RUNTIME MECHANISMS
- A-4 INTRODUCTION OF MESSAGE COMMUNICATION
- A-5 BENEFITS OF OOP'S
- A-6 APPLICATION OF OOP'S

B. JAVA EVOLUTION

- B-1 JAVA HISTORY
- B-2 FEATURES OF JAVA
- B-3 DIFFERENCE BETWEEN C & C++ N JAVA & C
- B-4 INTRODUCTION OF JAVA, INTERNET, WWW
- B-5 INTRODUCTION OF WEB BROWSER, HOTJAVA, NETSCAPE NAVIGATOR
- B-6 INTRODUCTION OF JAVA ENVIRONMENT, JDK
- B-7 INTRODUCTION OF APPLICATION PROGRAMMING INTERFACE

C. OVERVIEW OF JAVA LANGUAGE

- C-1 INTRODUCTION OF JAVA LANGUAGE
- C-2 INTRODUCTION OF SIMPLE JAVA PROGRAM
- C-3 INTRODUCTION OF JAVA STRUCTURE
- C-4 DEFINING OF JAVA PROGRAM STRUCTURE
- C-5 INTRODUCTION & DEFINING OF JAVA TOKENS
- C-6 IMPLEMENTING A JAVA PROGRAM
- C-7 CREATING THE PROGRAM
- C-8 COMPILING & RUNNING THE PROGRAM
- C-9 INTRODUCTION OF MACHINE NEUTRAL
- C-10 INTRODUCTION OF JAVA VIRTUAL MACHINE (JVM)

D. CONSTANTS, VARIABLE AND DATA TYPES

- D-1 INTRODUCTION OF CONSTANTS
- D-2 TYPES OF CONSTANT
- D-3 INTRODUCTION OF VARIABLES
- D-4 INTRODUCTION OF DATA TYPES
- D-5 DECLARATION OF VARIABLES
- D-6 INTRODUCTION OF ASSIGNMENT & READ STATEMENT
- D-7 INTRODUCTION OF TYPE CASTING N AUTOMATIC CONVERSION
- D-8 INTRODUCTION OF GETTING VALUES OF VARIABLES

E. OPERATORS & EXPRESSION

- E-1 INTRODUCTION OF OPERATORS
- E-2 TYPES OF OPERATORS
- E-3 EXAMPLES OF OPERATORS
- E-4 INTRODUCTION OF FIELDS DECLARATION & METHOD

DECLARATION

- E-5 INTRODUCTION OF DECISION MAKING WITH IF STATEMENTS**
- E-6 TYPES OF IF STATEMENT & ITS PROGRAM**
- E-7 INTRODUCTION OF SWITCH STATEMENT**
- E-8 PROGRAM RELATED TO SWITCH STATEMENT**

F. DECISION MAKING N LOOPING

- F-1 INTRODUCTION OF LOOPING**
- F-2 TYPES OF LOOPING**
- F-3 PROGRAM RELATED TO LOOP STATEMENT**

G. CLASSES, OBJECT & METHODS

- G-1 INTRODUCTION OF CLASSES**
- G-2 DEFINING A CLASSES**
- G-3 FIELDS & METHOD DECLARATION**
- G-4 CREATING OBJECTS**
- G-5 ACCESSING CLASS MEMBERS**
- G-6 PROGRAM RELATED CLASSES & OBJECTS**
- G-7 INTRODUCTION OF CONSTRUCTORS AND ITS PROGRAM**
- G-8 INTRODUCTION OF METHODS OVERLOADING**
- G-9 INTRODUCTION OF STATIC MEMBERS**
- G-10 INTRODUCTION OF NESTING METHODS**
- G-11 INTRODUCTION OF INHERITANCE:- EXTENDING A CLASS**
- G-12 INTRODUCTION OF DEFINING A SUB CLASS, CONSTRUCTOR**
- G-13 INTRODUCTION OF MULTILEVEL INHERITANCE, HIERARCHICAL**
- G-14 INTRODUCTION OF OVERRIDING METHODS & PROGRAMS**
- G-15 INTRODUCTION OF FINAL VARIABLE, METHODS & CLASSES**
- G-16 INTRODUCTION OF VISIBILITY CONTROL**

H. ARRAYS, STRINGS & VECTORS

- H-1 INTRODUCTION OF ARRAY**
- H-2 TYPES OF ARRAY**
- H-3 CREATION N INITIALIZATION OF ARRAYS**
- H-4 INTRODUCTION OF 2-D ARRAY**
- H-5 INTRODUCTION OF STRINGS, STRING ARRAY & METHODS**
- H-6 INTRODUCTION OF VECTORS**
- H-7 INTRODUCTION OF ENUMERATED TYPES**

I. INTERFACES MULTIPLE INHERITANCE

- I-1 INTRODUCTION OF INTERFACES**
- I-2 DEFINING OF INTERFACES**
- I-3 EXTENDING INTERFACES**
- I-4 IMPLEMENTING INTERFACES**
- I-5 ACCESSING INTERFACE VARIABLES**
- I-6 PROGRAM RELATED TO INTERFACES**

J. PACKAGES

- J-1 INTRODUCTION OF PACKAGES**
- J-2 INTRODUCTION OF JAVA API PACKAGES**
- J-3 INTRODUCTION OF NAMING CONVENTIONS**

POST GRADUATE DIPLOMA IN COMPUTER PROGRAMMING

J-4 CREATING PACKAGES

J-5 ACCESSING A PACKAGES

J-6 USING A PACKAGE

J-7 ADDING A CLASS TO A PACKAGE

J-8 PROGRAM RELATED TO PACKAGE

K. MANAGING ERRORS & EXCEPTION

K-1 INTRODUCTION OF ERRORS

K-2 TYPES OF ERROR

K-3 COMPILE TIME ERROR

K-4 RUN TIME ERROR

K-5 EXCEPTIONS

K-6 PROGRAM RELATED EXCEPTIONS

K-7 MULTIPLE CATCH STATEMENTS

K-8 THROWING OUR OWN EXCEPTIONS

K-9 USING FINALLY STATEMENT

K-10 USING EXCEPTIONS FOR DEBUGGING

L. BASIC I/O AND SERIALIZATION

L-1 INTRODUCTION OF I/O STREAMS

L-2 INTRODUCTION OF BYTE STREAMS

L-3 INTRODUCTION & USING OF CHARACTER STREAMS

L-4 INTRODUCTION OF LINE ORIENTED I/O

L-5 INTRODUCTION OF BUFFERED STREAMS

L-6 INTRODUCTION OF FLUSHING BUFFERED STREAMS

L-7 INTRODUCTION OF STANDARD STREAMS

L-8 INTRODUCTION OF DATA STREAMS

L-9 INTRODUCTION OF OBJECT STREAMS

L-10 INTRODUCTION OF FILE I/O, FILE OBJECT, MANIPULATING FILES

L-11 WORKING WITH DIRECTORIES

L-12 INTRODUCTION OF STATIC METHODS, RANDOM ACCESS FILES

M. APPLETS

M-1 INTRODUCTION OF APPLETS

M-2 LIFECYCLE OF APPLETS

M-3 LOADING APPLETS IN A WEB PAGE

M-4 GETTING STARTED APPLETS

M-5 APPLICATION AND APPLETS

M-6 IMPORTING CLASS AND PACKAGES FOR APPLETS

M-7 RELOADING THE APPLETS

M-8 INTRODUCTION OF INT, START, STOP, DESTROY METHOD

M-9 USING THE PAINT METHOD

M-10 WORKING WITH GRAPHICS

M-11 WORKING WITH DRAWING LINES

M-12 WORKING WITH DRAWING RECTANGLES

M-13 WORKING WITH CIRCLES AND ELLIPSES

M-14 WORKING WITH DRAWING ARTS

M-15 WORKING WITH POLYGONS

M-16 WORKING WITH COLOURS

M-17 WORKING WITH STATUS WINDOW

MODULE -7

SQL

PGDCP
Post Graduate Diploma in Computer Programming