DISCRETE MATEMETICS STRUCTURES
MCS-101[T]

Unit –I

Mathematical Logics: Introduction statement and notations, connective, normal forms, the theory of inference for the statement calculus, the predicate calculus.

Unit –II

Set Theory: Basic concepts, representation of discrete structure. relational ordering, functions ,natural, recursion. recursion in mechanical theorem proving.

Unit- III

Algebric Structures: Introduction, algebraic system, semi groups and morbid, grammars & expressions and their compilation

Unit-IV

Lattices and Boolean Algebra: introduction, lattices as partially ordered sets. Boolean function-.. representation and minimization of Boolean algebra.

Unit-V

Graph Theory: Introduction, basic concepts, storage representation and manipulation of graphs, service precedence grammars.

Text Books:

-Discrete Mathematics- John Truss.
Discrete Mathematical Structures with applications to Computer Science
Oren blay & Manohar(TMH)

PROGRAMMING IN C
MCS-102[T]

Unit-I

Preview of C, Feature of C. Stricture of Program, Variables, Expression.Identifiers_ Keywords.

Data Types, Constants. Operators: Arithmetic, Logical, Relating_. Relational and Bit vise , Precedence and Associativity of Operators, Types Conversion M Expression.

Unit-II

Basic Input/Output and Libray Functions Single Character Inpat[l]0.:Apt.r i.e..Getch( ), Getc1-2r( ). Getche( ), Putchar0, Formatted input-Ouut I.e. Print() and Scar.:1;), Library Functions- CorKep, Mattel:tat:cal and Character Ftmcor.s. Control Structures- if Statement, ifElse Statement, Nesting of If.. ..... Else Statement, 'Else If Ladder, ? : Operator. Switch case, Compound Statemerr, Loop Controls- For While, Do-Loops, Break Continue. Exit. Got3 Statement.

Unit-III

The Need of a Function, User Defined and Library Function, Prototype of a Function, Etnown Arcornent..Return Values aid Nesting of Function: Main( ). Cum:and Line Arguments. Recursion, Coaling of Functions, Array as Function Argument, Scope and Life of Variables- Local and Global

Unit-IV.

Arrays- Single and Kiltidirtenonal Arrays,. Array Declaraf.on and Initialization of Arrays. Striig: Declaration. Initialization, String Functions. Structure and Lnion-Defining Structure. Declaraion of Ainteture Variable, Accessing Structure Members, Nested Structures. Array of Structures, Structure arrangement , Structure as Function Argument, Function That Re-Structure, Union.

Unit V

TheAnds Operators, Pointers Expressions, Poktters VIS Arrays, Pointer to FUrCtiMS, oning Returning Pointers. Dynamic Memory AlloCaon: Introduction, Malloc, Callao, Sized, Free, Functions, Bitwise Optrater.

COMPUTER ORGANIZATION & ARCHITECTURE

MCS-103[T]

UNIT-I

Digital Leg : Circuits: Digital Computers. Logic Gates, Boolean Algebra. Map Simplification, Combinat:on rcu i ts (i.e. Half-Adde•). Flier-F:ops (i.e. SR FlipFlops, D FEp-f_ops. JK Flip-Flops, T Flip-Flops.. EL-re Triggered Flip-Flops, Executicr. Table), Sequential Circuits.

UNIT-II

Data Represe:tation: Data Type (i.e. Number System. Octal and Hexadecimal Number, Decimal Representation and Alphanumeric Representaton). Complements, Fix Point Re7resernation. Floating-Point Represeniztion,

Unit-Ill

Basic Comaunr Organization and Design Ins¯mu:don Codes. Computer Registers, Computer Instructions, Timing and Control, Instruction Cyc.e, Merncry Reference Instruction, Input-Output and Interrupt, Complete Con¯puter Description Desigr. of Basic Computer.

Unit-IV

Central Prxessing Unit: Introduction, General Register, Organization, Stock Organization, Instruction Formats, Addressing M Data Reduced Instruction SO_ Computer (RIK!).

Unit-V

Input-Output 0.¯.ganization: Peripheral Devices (ASCII alphanumeric Characters), Input-Output Interface;,1 Asynchroncus Data Transfer, Modes of Transt'er,?riority Inters t, Direct Access (DMA), Ittp442utput Processor OOP:

Text Book

1. Compw.:r System Design & Architecture- Hearing Jorann(A.W.L)
2. Comptrl.:r System Architecture- M.Mer: Marto, PH.f,,

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WINDOWS AND PC SOFTWARE

MCS-104[T]

Unit-I

Introduction to MS-DOS: History zzad Versions of DOS, Funs-jainenzls of DOS, Booting *Process,*

Internal and external DOS commands, creating and executing batch files.

Unit-II

Inter2alind External DOS Cornmandss Creating and Executir.g Bat:1 Files. .

Introduaion for Windows: Features of Windows. Hardware Requir=err fcr Running Version of WiAbliI. New Installation & tjp-gratlation. Origin of Windows, Part of Ikndci,vs Screen, Types and Acosoriess.

Unit-III

Introduction to word processing (MS Word) advantages of word processing, introduction & installation editing a file, using paragraph styles newspaper, style column, using macros. Advanced word processing, header & footer, formatting text setting up printer mail merge and other applications Mathematical calculations, table handling..

Unit-IV

Introduction to spread sheet (MS Excel) definition and advantages of electronic- worksheet working on spreadsheet, rand and related operations, setting saving and retrieving worksheet file, insetting, cells, printing_ a worksheet, erasing a worksheet, Graphs creation: types of graphs, creating a chart on chart sheet, 3D column charts, moving and changing the size of chart, printing the chart.

Unit-V

Introduction of MS Power Point Element of power point , exploring menus of power point, working with dialogue boxes adding file text and art and picture to slide printing sizes, view slides, outline slide sorter notes and sides show view, slide setup formatting and enlarging text slides with graphs

. PC software for windows and made simple by taxali (TMH)

Laboratory

1. Write a program to swap the contents of two variable with & without using temporary
2. Write a program to print the Fibonaccilc a given numbers
3. Write a program to invert 3 x 3 matrix.
4. Write a program multiply two matrices.
5. Write a program to create an odd magic square.
6. Write a program to rind all capital letters in string.
7. Write a prom am to convert upper case letters to lower case & vice versa in a sentence: of anxe.J S. Write a pro_ cam to search a number in as array us.ag the algorithm like sequential st.arc,
9. Write a program to check whether a string is a paliadrome or not.
10. Write a program to calculate factorial of a no throegh recursion.
11. Write a program to calculate roots to a quadratic equation