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CMR
INSTITUTE OF
TECHNOLOGY

Session wise – Course Plan

Department of Computer Science and Engineering

SEMESTER : III -C
BRANCH : CSE
SUBJECT : ENGINEERING MATHS-3
SUBJECT CODE : 15MAT31
NO OF HRS/WK : 6

NAME OF THE FACULTY : R.REVATHI
DATE OF COMMENCEMENT : 7/8/2017
DATE OF CLOSING : 25/11/2017
CLASS STRENGTH : 60
TOTAL HRS : 60

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	**1/1**	7/8/2017	**MODULE 1: Fourier Series** Convergence and divergence of infinite series of positive terms- definition and illustrative examples	Chalk & Talk	Assignment- I	
2	**2/1**	8/8/2017	Periodic functions, Dirichlet's conditions, Fourier series of periodic functions of period 2π	,,		
3	**3/1**	9/8/2017	Fourier series of periodic functions of period$(-\pi, \pi)$	,,		
4	**4/1**	10/8/2017	Even and odd functions of period 2π	,,		
5	**5/1**	11/8/2017	Even and odd functions of period$(-\pi, \pi)$	,,		
6	**6/1**	12/8/2017	Fourier series of periodic functions for arbitrary period 2l	,,		
7	**7/1**	14/8/2017	Fourier series of periodic functions for arbitrary period (-l,l)	‘’		

8	**8/1**	16/8/2017	Half range Fourier series in $(0, \pi)$	,,		
9	**9/1**	17/8/2017	Half range Fourier series in $(0, l)$	,,		
10	**10/1**	18/8/2017	Practical harmonic analysis	,,		
11	**11/1**	19/8/2017	Complex form of Fourier series	,,		
12	**12/1**	21/8/2017	Miscellaneous problems	,,		
13	½	22/8/2017	**MODULE 2 :Numerical Methods -** Finite differences, forward and backward differences	,,	Assignment -II	
14	**2/2**	23/8/2017	Newton's forward and backward interpolation formulae	,,		
15	**3/2**	24/8/2017	Problems on interpolation	‘’		
16	**4/2**	28/8/2017	Divided differences	,,		
17	**5/2**	29/8/2017	Newton's divided difference formula	,,		
18	**6/2**	30/8/2017	Problems on Newton's divided difference formula	,,		
19	**7/2**	31/8/2017	Lagrange's interpolation formula - problems	,,		
20	**8/2**	1/9/2017	Lagrange's inverse interpolation formula-problems	,,		
21	**9/2**	4/9/2017	Numerical integration-Simpson's 1/3,3/8 th rule-problems	,,		
22	**10/2**	5/9/2017	Weddle's rule -problems	,,		
23	**1/3**	6/9/2017	**MODULE 3:Fourier Transforms** Infinite Fourier transform	‘’	Assignment –III	
24	**2/3**	7/9/2017	Problems continued	,,		
25	**3/3**	8/9/2017	Fourier sine and cosine transforms	,,		
26	**4/3**	9/9/2017	Problems continued	,,		
27	**5/3**	11/9/2017	Fourier sine and cosine- inverse transforms	,,		
28	**6/3**	12/9/2017	Infinite Fourier transform - properties	,,		

29	**7/3**	13/9/2017	Fourier sine and cosine transforms - properties	,,		
30	**8/3**	14/9/2017	**Z Transforms** Difference equations, Z- transforms, definition,	,,		
31	**9/3**	15/9/2017	Standard Z- transforms-Formulas	,,		
32	**10/3**	22/9/2017	Damping rule, shifting rule-problems	‘’		
33	**11/3**	23/9/2017	Initial value and final value theorem-problems	,,		
34	**12/3**	25/9/2017	Inverse Z -transform	,,		
35	**13/3**	26/9/2017	Applications of Z -transforms to solve difference equations	,,		
36	**14/3**	27/9/2017	Problems continued	,,		
37	¼	28/9/2017	**MODULE 4 :Numerical Methods** Numerical solution of algebraic and transcendental equations	,,	Assignment -IV	
38	**2/4**	3/10/2017	Regula-Falsi method	,,		
39	¾	4/10/2017	Problems continued	‘’		
40	**4/4**	6/10/2017	Newton Raphson method	,,		
41	**5/4**	7/10/2017	Curve fitting by the method of least squares	,,		
42	**6/4**	9/10/2017	Fitting of curves of the form y=a+bx,	,,		
43	**7/4**	10/10/2017	Fitting of curves of the form $y=ax^2+bx+c$, $y=ae^{bx}$, $y=ax^b$	,,		
44	**8/4**	11/10/2017	Correlation	,,		
45	**9/4**	12/10/2017	Regression Coefficients	,,		
46	**10/4**	13/10/2017	lines of Regression.	,,		
47	1/5	14/10/2017	**MODULE 5**: Line integral,_defnition and problems	‘’	Assignment -V	

48	2/5	16/10/2017	Surface and volume integrals	”		
49	3/5	17/10/2017	Definition and problems	”		
50	4/5	23/10/2017	Green’ s theorem in a plane(Without proof)-problems	”		
51	**5/5**	24/10/2017	Stokes and Gauss divergence theorem(without proof)-problems	”		
52	**6/5**	25/10/2017	Calculus of variations-Introduction	”		
53	**7/5**	26/10/2017	Problems	”		
54	**8/5**	27/10/2017	Variation of function	”		
55	**9/5**	28/10/2017	Functional-Definition	‘’		
56	**10/5**	30/10/2017	Variational problems	”		
57	**11/5**	31/10/2017	Euler’s equation	”		
58	**12/5**	2/11/2017	Geodesics	”		
59	**13/5**	3/11/2017	Minimal surface of revolution	”		
60	**14/5**	4/11/2017	Hanging chain problems.	”		

Syllabus for Internal Assessment Tests (IAT) *

Sessional #	Syllabus
T1	Class # 01 - 31
T2	Class # 31 – 54
T3	54-60

*: See calendar of events for the schedules of IATs.

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #

Text Book	TB1	B.S. Grewal, Higher Engineering Mathematics, Latest Edition, Khanna publishers	Latest edition, Khanna publications	8174091955
Text Book	TB2	Erwin Kreyszig, Advanced Engineering Mathematics	Latest Edition Wiley India publishers	978812653135
References	RB1	B.V Ramana, Higher Engineering Mathematics,.	Latest Edition, Tata Mc. Graw Hill Publications	---
References	RB2	Peter V . O'Neil, Engineering Mathematics.	Cengage Learning India Pvt. Ltd. Publishers	---
References	RB3	Dr. D.S.C , Engineering Mathematics III	5th Edition 2011 6th edition 2016	978-81-7686-675-4
References	RB4	Dr. K.S.C , Engineering Mathematics III	2011-2012 2016 edition	---

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CMR INSTITUTE OF TECHNOLOGY

Session wise – Lesson Plan

Department of Computer Science and Engineering

SEMESTER : III A
BRANCH : CSE
SUBJECT : Analog and Digital Electronics
SUBJECT CODE : 15CS32
NO OF HRS/WK : 5

NAME OF THE FACULTY : Ms. Savitha S
DATE OF COMMENCEMENT : 07.08.2017
DATE OF CLOSING : 16/11/17
CLASS STRENGTH : 61
TOTAL HRS :

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	**1/2**	07/08/17	Introduction and prerequisite	,,		
2	**2/2**	08/08/17	**Module-2 The Basic Gates**: Review of Basic Logic gates, Positive and Negative Logic,	,,		

3	**3/2**	09/08/17	**Combinational Logic Circuits:** Sum-of-Products Method, Truth Table to Karnaugh Map, Pairs Quads, and Octets	,,		
4	**4/2**	10/08/17	Karnaugh Simplifications	,,		
5	**5/2**	12/08/17	K map with Don't-care Conditions,	,,		
6	**6/2**	14/08/17	Product-of-sums Method, Product-ofsums simplifications,	,,		
7	**7/2**	16/08/17	Product-of-sums Method, Product-ofsums simplifications,	,,	Assignment -I	
8	**8/2**	17/08/17	Simplification by Quine-McCluskyMethod,	,,		
9	**9/2**	18/08/17	Simplification by Quine-McCluskyMethod,	,,		
10	**10/2**	21/08/17	Hazards and Hazard covers,	,,		
11	**11/2**	22/08/17	HDL Implementation Models.	,,		
12	**12/2**	23/08/17	HDL Implementation Models.	,,		
13	**1/3**	24/08/17	**MODULE 3: Data Processing Circuits:** Multiplexers and problems.	Board, chalk, duster		
14	**2/3**	28/08/17	De-multiplexers and problems.	,,		
15	**3/3**	30/08/17	1-of-16 Decoder,	,,		
16	**4/3**	31/08/17	BCD to decimal Decoders, Seven segment decoders	,,		
17	**5/3**	01/09/17	Encoders, Exclusive-or Gates.	,,		
18	**6/3**	04/09/17	Parity Generators and Checkers.	,,		
19	**7/3**	07/09/17	Magnitude Comparator	,,	Assignment –II	
20	**8/3**	08/09/17	Programmable Array Logic	,,		
21	**9/3**	09/09/17	Programmable Logic Arrays	,,		

22	**10/3**	11/09/17	HDL Implementation of Data Processing Circuits	,,		
23	**11/3**	12/09/17	Arithmetic Building Blocks, Arithmetic Logic Unit	Board, chalk, duster		
24	**12/3**	14/09/17	**Flip-Flops:** RS Flip-Flops, Gated Flip-Flops,	,,		
25	**13/3**	15/09/17	Edge-triggered RS FLIP-FLOP, Edgetriggered D FLIP-FLOPs, Edge-triggered JK FLIP-FLOPs.	,,		
26	**1/4**	22/09/17	**Module-4 : Flip- Flops:** FLIP-FLOP Timing, JK Master-slave FLIP-FLOP	,,		
27	**2/4**	23/09/17	Switch Contact Bounce Circuits	,,		
28	**3/4**	25/09/17	Various Representation of FLIP-FLOPs,	,,		
29	**4/4**	27/09/17	HDL Implementation of FLIP-FLOP	,,	Assignment -III	
30	**5/4**	28/09/17	**Registers:** Types of Registers, Serial In - Serial Out, Serial In - Parallel out, Parallel In - Serial Out, Parallel In - Parallel Out,			
31	**6/4**	03/10/17	Universal Shift Register,	,,		
32	**7/4**	04/10/17	Applications of Shift Registers	,,		
33	**8/4**	06/10/17	Register implementation in HDL.	,,		
34	**9/4**	09/10/17	**Counters:** Asynchronous Counters, Decoding Gates,	,,		
35	**10/4**	10/10/17	Synchronous Counters, Changing the Counter Modulus.	,,		
36	**12/4**	11/10/17	Changing the Counter Modulus			
37	**13/4**	12/10/17	**Module 5: Counters:** Decade Counters, Pre settable Counters	,,		
38		13/10/17	Counter Design as a Synthesis problem, A Digital Clock,	Projector		
39	**1/5**	16/10/17	Counter Design using HDL.	,,		

40	**2/5**	17/10/17	**D/A Conversion and A/D Conversion:** Variable, Resistor Networks, Binary Ladders,	Board, chalk, duster		
41	**3/5**	23/10/17	D/A Converters, D/A Accuracy and Resolution,	,,	Assignment -IV	
42	**4/5**	24/10/17	A/D Converter- Simultaneous Conversion,	,,		
43	**5/5**	25/10/17	Continuous A/D Conversion, A/D Techniques,	,,		
44	**6/5**	27/10/17	A/D Converter-Counter Method,	,,		
45	**7/5**	28/10/17	A/D Techniques, A/D Accuracy and Resolution. Dual-slope A/D Conversion	,,		
46	**1/1**	30/10/17	**Module 1**- BJT v/s FET,	,,		
47	**2/1**	31/10/17	Working and construction of JFET,MOSFETs,	,,		
48	**3/1**	02/11/17	Working and construction of D-MOSFETs & E- MOSFETs	,,		
49	**4/1**	04/11/17	Biasing of MOSFET,	Board, chalk, duster	Assignment-V	
50	**5/1**	09/11/17	Biasing of MOSFET,			
51	**6/1**	10/11/17	FET Applications ,CMOS Devices			
52	**7/1**	13/11/17	Wave shaping Circuits: IC Multivibrators	,,		
53	**8/1**	14/11/17	OPERATIONAL AMPLIFIERS, Ideal and practical opamp with performance parameters	,,		
54	**9/1**	16/11/17	Applications of opamp with their analysis	,,		
55	**10/1**		Applications of opamp with their analysis	"		

CMR INSTITUTE OF TECHNOLOGY

Session wise – Course Plan

Department of Computer Science and Engineering

SEMESTER :III –C
BRANCH : CSE
SUBJECT : Data Structure and Application
SUBJECT CODE : 15CS33
NO OF HRS/WK : 5

NAME OF THE FACULTY : Ms. Navaneetha M
DATE OF COMMENCEMENT : 7th July 2017
DATE OF CLOSING : 25 Nov 2017
CLASS STRENGTH : 60
TOTAL HRS : 55

Session No	**Chapter no (No of hrs planed for the chapter)**	**DATE**	**Topics planned for the session**	**Teaching Aids**	**Assignments/ Tests planned for the chapter**
1		8/8/2017	Revision of C Language topics		
2		8/8/2017	Revision of C Language topics		
3	**1/1**	9/8/2017	Introduction to Data Structures, Classification of Data Structures: Primitive and Non-Primitive, Linear and Nonlinear;		
4	**2/1**	9/8/2017	Data structure Operations: Create, Insert, Delete, Search, Sort, Merge, Traversal.	Chalk & Talk	
5	**3/1**	11/8/2017	***Arrays:*** Definition, Representation, Operations - Insert, Delete, Search	,,	
6	**4/1**	16/8/2017	Sort .	,,	
7	**5/1**	16/8/2017	Multidimensional Arrays;	,,	
8	**6/1**	17/8/2017	Polynomial and sparse matrices	,,	
9	**7/1**	17/8/2017	Self Referential Structures, Review of Structures,	,,	
10	**8/1**	19/8/2017	Unions	‘’	Assignment- I
11	**9/1**	23/8/2017	Pointers,	,,	
12	**10/1**	23/8/2017	***Strings:*** Definition, storing,Operations,	,,	

13	**11/1**	24/8/2017	Pattern matching Algorithm	,,	
14	**12/1**	24/8/2017	Dynamic Memory Management Functions - *malloc, calloc, realloc, free.*,	,,	
15	**13/1**	29/8/2017	Programming Examples.	,,	
16	**1/2**	1/9/2017	***Stack:*** Definition, Representation, Operations	,,	
17	**2/2**	1/9/2017	***Stack*** Operations	,,	
18	**3/2**	4/9/2017	Applications: Polish and reverse polish expressions, Infix to postfix conversion	‘’	
19	**4/2**	4/9/2017	evaluation of postfix expression, infix to prefix, postfix to infix conversion	,,	
20	**5/2**	6/9/2017	Recursion - Factorial, GCD, Fibonacci Sequence, Tower of Hanoi	,,	
21	**6/2**	9/9/2017	Ackerman's Recursive function.	,,	
22	**7/2**	9/9/2017	***Queue:*** Definition, Representation, Operations,	,,	Assignment –II
23	**8/2**	11/9/2017	Queue Variants: Circular Queue,	,,	
24	**9/2**	11/9/2017	Priority Queue,	,,	
25	**10/2**	13/9/2017	Double Ended Queue;	,,	
26	**11/2**	22/9/2017	Applications of Queues.	‘’	
27	**12/2**	22/9/2017	Multiple stack and queue.Programming Examples.	,,	
28	**1/3**	23/9/2017	**Linear Data Structures and their Linked Storage Representation:** ***Linked List:*** Definition, Representation, and its Operations	,,	
29	**2/3**	23/9/2017	Types: Singly Linked List,	,,	
30	**3/3**	26/9/2017	Singly Linked List	,,	
31	**4/3**	3/10/2017	Doubly Linked list,	,,	
32	**5/3**	3/10/2017	Circular linked list	,,	
33	**6/3**	4/10/2017	Linked implementation of Stack	,,	

34	**7/3**	4/10/2017	Queue variants - Double Ended, Priority queues.	,,	
35	**8/3**	7/10/2017	Applications of Linked lists – Polynomial Manipulation, multiprecision arithmetic	‘’	
36	**9/3**	11/10/2017	Symbol table organizations, Sparse matrix representation with multilinked data structure	,,	Assignment -III
37	**10/3**	11/10/2017	Programming Examples - length of a list, Merging two lists, removing duplicates,	,,	
38	**11/3**	12/10/2017	reversing a list, union and intersection of two lists etc.	,,	
39	**12/3**	12/10/2017	Programming Examples	,,	
40	**1/4**	14/10/2017	**Nonlinear Data Structures:** ***Trees***: Definitions, Terminologies, Array and Representation of Binary Trees	,,	
41	**2/4**	23/10/2017	linked Representation of Binary Trees,	,,	
42	**3/4**	23/10/2017	Types- Complete/full, Almost Complete, Strictly, Skewed;	‘’	
43	**4/4**	24/10/2017	Traversal methods - Inorder, postorder, preorder;	,,	
44	**5/4**	24/10/2017	Binary Search Trees - Creation, Insertion, Deletion	,,	Assignment -IV
45	**6/4**	26/10/2017	Traversal, Searching Expression tree, Threaded binary tree	,,	
46	**7/4**	30/10/2017	Conversion of General Trees to Binary Trees	,,	
47	**8/4**	31/10/2017	Constructing BST from traversal orders	,,	
48	**9/4**	3/11/2017	Applications Of Trees: Evaluation of Expression Tree based Sorting	,,	
49	**1/5**	3/11/2017	***Graph***: Definitions, Terminologies, Matrix Representation Of Graphs, Adjacency List Representation Of Graphs	,,	
50	**2/4**	10/11/2017	Traversal methods: Breadth First Search	‘’	
51	**3/5**	10/11/2017	Depth First Search	,,	
52	**4/5**	13/11/2017	***Sorting and Searching***: Insertion Sort, Radix sort, Address Calculation Sort	,,	

53	**5/5**	13/11/2017	*Hashing*: The Hash Table organizations, Hashing Functions,	,,	
54	**6/5**	15/11/2017	Static and Dynamic Hashing	,,	
56	**7/5**		Collision-Resolution Techniques, ***File Structures:*** Definitions and Concepts, Types	,,	Assignment -V
57	**8/5**		File Organizations - Sequential, Indexed Sequential, Random Access	,,	

Syllabus for Internal Assessment Tests (IAT)*

Sessional #	Syllabus
T1	CLASS#1-25
T2	CLASS#26-40
T3	CLASS#40-55

*: See calendar of events for the schedules of IATs.

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB1	Fundamentals of Data Structures in C - Ellis Horowitz and Sartaj Sahni	2nd edition	978-81-7371-605 8
Text Book	TB2	Data Structures - Seymour Lipschutz, Schaum's Outlines	Revised 1st edition, McGraw Hill, 2014	978-1-25-902996-7
References	RB1	Data Structures: A Pseudo-code approach with C.–Gilberg & Forouzan	2nd edition, Cengage Learning, 2014.	1449335942

SEMESTER : 3A
BRANCH : CSE
SUBJECT : CO
SUBJECT CODE : 15CS34
NO OF Lectures/WK : 6

NAME OF THE FACULTY : Daminderjit Sunner
DATE OF COMMENCEMENT : 07.08.2017
DATE OF CLOSING : 25.11.2017
CLASS STRENGTH : 61
TOTAL LECTURES : 66

Session No	Module no (No of lectures planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter
1	**1/1**	7/8/2017	Introduction to Computer Organization course	Chalk n talk	
2	**2/1**	8/8/2017	**Module 1:- Basic Structure of Computers:** Basic Operational Concepts	Chalk n talk	
3	**3/1**	9/8/2017	Bus Structures, Performance – Processor Clock, Basic Performance Equation, Clock Rate, Performance Measurement	Chalk n talk	
4	**4/1**	9/8/2017	Machine Instructions and Programs: Memory Location and Addresses	Chalk n talk	
5	**5/1**	11/8/2017	Memory Operations, Instructions and Instruction Sequencing	Chalk n talk	
6	**6/1**	12/8/2017	Instructions and Instruction Sequencing	Chalk n talk	
7		14/8/2017	Seminar Day	Seminar	Seminar
8	**7/1**	16/8/2017	Addressing Modes	Chalk n talk	
9	**8/1**	17/8/2017	Addressing Modes	Chalk n talk	
10	**9/1**	17/8/2017	Assembly Language	Chalk n talk	
11	**10/1**	19/8/2017	Basic Input and Output Operations	Chalk n talk	
12	**11/1**	21/8/2017	Stacks and Queues	Chalk n talk	
13		22/8/2017	Seminar Day	Seminar	Seminar
14	**12/1**	23/8/2017	Subroutines	Chalk n talk	
15	**13/1**	24/8/2017	Subroutines	Chalk n talk	
16	**14/1**	24/8/2017	Additional Instructions, Encoding of Machine Instructions	Chalk n talk	Assignment-1
17	**15/1**	29/8/2017	Assignment solution discussion	Group	

				discussion	
18	**16/1**	30/8/2017	Assignment solution discussion	Group discussion	
19		31/8/2017	Seminar Day	Seminar	Seminar
20	**1/2**	1/9/2017	**Module 2:- Input/Output Organization:** Accessing I/O Devices	Chalk n talk	
21	**2/2**	4/9/2017	Interrupts introduction	Chalk n talk	
22	**3/2**	4/9/2017	Interrupt Hardware, Enabling and Disabling Interrupts	Chalk n talk	
23	**4/2**	6/9/2017	Handling Multiple Devices	Chalk n talk	
24	**5/2**	7/9/2017	Controlling Device Requests, Exceptions	Chalk n talk	
25		8/9/2017	Seminar Day	Seminar	Seminar
26	**6/2**	9/9/2017	Direct Memory Access	Chalk n talk	
27	**7/2**	11/9/2017	Buses	Chalk n talk	
28	**8/2**	11/9/2017	Interface Circuits	Chalk n talk	
29	**9/2**	13/9/2017	Interface Circuits	Chalk n talk	Assignment-2 (part 1)
30	**10/2**	14/9/2017	Assignment solution discussion	Group discussion	
31		15/9/2017	Seminar Day	Seminar	Seminar
32	**11/2**	22/9/2017	Standard I/O Interfaces- PCI Bus	Chalk n talk	
33	**12/2**	23/9/2017	SCSI Bus	Chalk n talk	
34	**13/2**	23/9/2017	USB	Chalk n talk	Assignment-2 (part 2)
35	**14/2**	26/9/2017	Assignment solution discussion	Group discussion	
36	**1/3**	27/9/2017	**Module 3:- Memory System:** Basic Concepts, Semiconductor RAM Memories	Chalk n talk	
37		28/9/2017	Seminar Day	Seminar	Seminar
38	**2/3**	3/10/2017	Semiconductor RAM Memories	,,	
39	**3/3**	4/10/2017	Semiconductor RAM Memories	Chalk n talk	
40	**4/3**	4/10/2017	Read Only Memories, Speed, Size, and Cost	Chalk n talk	
41	**5/3**	7/10/2017	Cache Memories – Mapping Functions, Replacement Algorithms	Chalk n talk	
42	**6/3**	9/10/2017	Performance Considerations	Chalk n talk	
43		10/10/2017	Seminar Day	Seminar	Seminar
44	**7/3**	11/10/2017	Virtual Memories	Chalk n talk	

45	**8/3**	12/10/2017	Secondary Storage	Chalk n talk	
46	**9/3**	12/10/2017	Secondary Storage	Chalk n talk	Assignment-3
47	**10/3**	14/10/2017	Assignment solution discussion	Group discussion	
48	**1/4**	16/10/2017	**Module 4:-Arithmetic:** Numbers, Arithmetic Operations and Characters	Chalk n talk	
49		17/10/2017	Seminar Day	Seminar	Seminar
50	**2/4**	23/10/2017	Addition and Subtraction of Signed Numbers	Chalk n talk	
51	**3/4**	24/10/2017	Design of Fast Adders	Chalk n talk	
52	**4/4**	24/10/2017	Multiplication of Positive Numbers	Chalk n talk	
53	**5/4**	26/10/2017	Signed Operand Multiplication	Chalk n talk	
54	**6/4**	27/10/2017	Fast Multiplication	Chalk n talk	
55	**7/4**	28/10/2017	Integer Division	Chalk n talk	
56	**8/4**	30/10/2017	Floating-point Numbers and Operations	Chalk n talk	
57	**9/4**	31/10/2017	Floating-point Numbers and Operations	Chalk n talk	Assignment-4
58	**10/4**	31/10/2017	Assignment solution discussion	Group discussion	
59	**1/5**	3/11/2017	**Module 5:- Basic Processing Unit:** Some Fundamental Concepts	Chalk n talk	
60	**2/5**	4/11/2017	Execution of a Complete Instruction, Multiple Bus Organization, Hard-wired Control	Chalk n talk	
61	**3/5**	9/11/2017	Micro programmed Control	Chalk n talk	
62	**4/5**	10/11/2017	Micro programmed Control	Chalk n talk	
63	**5/5**	13/11/2017	Embedded Systems and Large Computer Systems: Examples of Embedded Systems, Processor chips for embedded applications	Chalk n talk	
64	**6/5**	13/11/2017	Simple Microcontroller	Chalk n talk	
65	**7/5**	15/11/2017	The structure of General-Purpose Multiprocessors	Chalk n talk	Assignment-5
66	**8/5**	16/11/2017	Assignment solution discussion	Group discussion	

Seminar contains various out of syllabus but important topics and terminology related to computer organization, which will enhance motivation for life learning in students.

Syllabus for Sessionals:

Sessional #	Syllabus
T1	Class # 01 – 30
T2	Class # 31 – 58
T3	Class # 59 – 66

SL. NO.	TITLE	AUTHOR	PUBLICATION	YEAR
1 (Text book)	Computer Organization	Carl Hamacher, Zvonko Vranesic, Safwat Zaky	5th Edition, Tata McGraw Hill	2002
2 (Reference book)	Computer Organization and Architecture	Willian Stallings	9th Edition, Pearson	2015

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Session wise – Course Plan

SEMESTER : III C
BRANCH : CSE
SUBJECT : Unix and Shell Programming
SUBJECT CODE : 15CS35
NO OF HRS/WK : 5

NAME OF THE FACULTY : Mrs.Swathi.Y
DATE OF COMMENCEMENT : 07/August/2017
DATE OF CLOSING : 19/Nov/2017
CLASS STRENGTH : 62
TOTAL HRS : 57

Session No	Chapter no (No of hrs planed for the chapter) (Unit#/Hrs)	DATE	Topics planned for the session	Teaching Aids	Assignments / Tests planned for the chapter	Topics covered As per plan
1	**1/1**	8.08.17	Explanation of objectives, outcomes w.r.t UNIX. Module 1: Introduction, Brief history.	Chalk & Talk		
2	**1/2**	9.08.17	Unix Components/Architecture. Features of Unix. The UNIX Environment and UNIX Structure	,,		
3	**1/3**	11.08.17	Posix and Single Unix specification. The login prompt. General features of Unix commands/ command structure.	,,		
4	**1/4**	11.08.17	Command arguments and options. Understanding of some basic commands. Combining commands.	,,		
5	**1/5**	12.08.17	Meaning of Internal and external commands. The type command: knowing the type of a command and locating it. Practical session on commands	Projector		
6	**1/6**	16.08.17	The man command knowing more about Unix commands and using Unix online manual pages. The man with keyword option	Chalk & Talk		
7	**1/7**	17.08.17	The more command and using it with other commands. Knowing the user terminal, displaying its characteristics and setting characteristics.	‘’		
8	**1/8**	19.08.17	Practical session on commands	Projector		
9	**1/9**	19.08.17	Practical session on commands	Projector	**Assignment 1 /Activity**	
10	**1/10**	21.08.17	Managing the non- uniform behaviour of terminals and keyboards. The root login.	Chalk & Talk		
11	**1/11**	23.08.17	Becoming the super user: su command. The /etc/passwd and /etc/shadow files. Commands to add, modify	Chalk & Talk		

			and delete users.			
12	**2/1**	24.08.17	**Module 2 :**Unix files. Naming files. Basic file types/categories. Organization of files.	Chalk & Talk		
13	**2/2**	29.08.17	Hidden files. Standard directories. Parent child relationship. The home directory and the HOME variable.	,,		
14	**2/3**	30.08.17	Reaching required files- the PATH variable, manipulating the PATH, Relative and absolute pathnames.	,,		
15	**2/4**	1.09.17	Directory commands – pwd, cd, mkdir, rmdir commands. The dot (.) and double dots (..) notations to represent present and parent directories and their usage in relative path names.	‘’		
16	**2/5**	4.09.17	File related commands – cat, mv, rm, cp	Chalk & Talk		
17	**2/6**	6.09.17	Practical session on commands	Projector		
18	**2/7**	6.09.17	Practical session on commands	Projector		
19	**2/8**	7.09.17	wc and od commands. File attributes and permissions and knowing them. The ls command with options.	Chalk & Talk		
20	**2/9**	9.09.17	Changing file permissions: the relative and absolute permissions changing methods.	Chalk & Talk		
21	**2/10**	11.09.17	Recursively changing file permissions. Directory permissions.	Chalk & Talk		
22	**2/11**	13.09.17	Practical session on commands	Projector	**Assignment 2/Activity**	
23	**2/12**	13.09.17	Practical session on commands			
24	**3/1**	14.09.17	**Module 3** : The Vi editor, Basics, The .exrc file. Different ways of invoking and quitting vi. Differentmodes of vi. Input	Chalk & Talk		

			mode commands.			
25	**3/2**	22.09.17	Command mode commands. The ex mode commands.			
26	**3/3**	23.09.17	Illustrative examples Navigation commands. Repeat command.	,,		
27	**3/4**	26.09.17	Pattern searching. The search and replace command. The set, map and abbr commands.	,,		
28	**3/5**	26.09.17	Practical session: Simple examples using these commands.	**Laptops**		
29	**3/6**	27.09.17	The shells interpretive cycle. Wild cards and file name generation.	Chalk & Talk		
30	**3/7**	3-10.17	Removing the special meanings of wild cards. Three standard files and redirection.	,,		
31	**3/8**	4.10.17	Connecting commands: Pipe. Splitting the output: tee. Command substitution.	,,		
32	**3/9**	7.10.17	Basic and Extended regular expressions. The grep, egrep.	,,		
32	**3/10**	7.10.17	Typical examples involving different regular expressions.	,,	**Assignment 3**	
33	**3/11**	9.10.17	Practical session on commands discussed.	**Laptops**		
34	**4/1**	11.10.17	Shell programming. Ordinary and environment variables. The .profile. Read and readonly commands.	Chalk & Talk		
35	**4/2**	12.10.17	Command line arguments. exit and exit status of a command. Logical operators for conditional execution.	,,		
36	**4/3**	14.10.17	The test command and its shortcut. The if, while, for and case control statements.	,,		
37	**4/4**	**14.10.17**	The set and shift commands and handling positional	,,		

			parameters..			
38	**4/5**	16.10.17	The here (<<) document and trap command	,,		
39	**4/6**	23.10.17	**Practical session on commands**	**Laptops**		
40	**4/7**	24.10.17	Simple shell program examples. File inodes and the inode structure.	Chalk & Talk		
41	**4/8**	26.10.17	File links – hard and soft links. Filters. Head and tail commands. Cut and paste commands.	,,		
42	**4/9**	26.10.17	sort command and its usage with different options. The umask and default file permissions.	,,		
43	**4/10**	27.10.17	Two special files /dev/null and /dev/tty.	,,	**Assignment 4**	
44	**4/11**	30.10.17	Practical session on commands	**Laptops**		
45	**5/1**	31.10.17	Meaning of a process. Mechanism of process creation. Parent and child process. The ps command with its options.	Chalk & Talk		
46	**5/2**	3.11.17	Executing a command at a specified point of time: at command. Executing a command periodically: cron command and the crontab file.. Signals.	,,		
47	**5/3**	3.11.17	The nice and nohup commands. Background processes.	,,		
48	**5/4**	**4.11.17**	The bg and fg command. The kill command. The find command with illustrative example.	,,		
49	**5/5**	10.11.17	Practical session on commands	**Laptops**		
50	**5/6**	13.11.17	Structure of a perl script. Running a perl script. Variables and operators.	Chalk & Talk		
51	**5/7**	15.11.17	String handling functions. Default variables - $_ and $. – representing the current line and current line number.	,,		

52	**5/8**	15.11.17	The range operator. Chop() and chomp() functions. Lists and arrays.	,,		
53	**5/9**	16.11.17	The @- variable. The splice operator, push(), pop(), split() and join().	,,		
54	**5/10**	17.11.17	Practical session on commands	**Laptops**		
55	**5/11**	18.11.17	File handles and handling file – using open(), close() and die () functions.. Associative arrays – keys and value functions.	Chalk & Talk		
56	**5/12**	18.11.17	Overview of decision making loop control structures – the foreach. Regular expressions – simple and multiple search patterns.	,,		
57	**5/13**	20.11.17	The match and substitute operators. Defining and using subroutines.	,,	**Assignment 5**	

Syllabus for Internal Assessment Tests (IAT)*

IAT #	Syllabus
IAT-1	Class # 01 – 22
IAT-2	Class # 23 – 44
IAT-3	Class # 45- 57

Literature:

Book Type	Code	Author & Title	Publication information	
			Edition // Publisher	ISBN #
Text Book	TB1	Sumitabha Das, " UNIX – Concepts and Applications"	Fourth Edition, Tata McGraw Hill	0-07-063546-3
Text Book	TB2	Behrouz A Forouzan and Richard F Gilberg, " UNIX and Shell Programming "	Cengage Learning, INDIA Edition, Ninth Indian Reprint 2009	978-81-315-0325-6
Reference	RB1	M.G. Venkateshmurthy, " Introduction to UNIX and Shell Programming "	Pearson Education, 2005, Eighth Impression 2011	978-81-7758-745-6
Reference	RB2	Blum , Christine Bresnahan : Linux Command Line and Shell Scripting Bible	2nd Edition , Wiley,2014.	

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Session wise – Course Plan

Department of Mathematics

SEMESTER : III
BRANCH : CSE- A
SUBJECT : Discrete mathematical Structures
SUBJECT CODE : 15CS36
NO OF HRS/WK : 6

NAME OF THE FACULTY : Bharti Sharma
DATE OF COMMENCEMENT : 7th August 2017
DATE OF CLOSING : 25th Nov 2017
CLASS STRENGTH : 61
TOTAL HRS : 66

Session No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter
1	**1/9**	07/08/2017	Introduction to DMS, text books	Chalk & Talk	
2	**2/9**	07/08/2017	Introduction to Graph Theory: Definitions and Examples	,,	
3	**3/9**	08/08/2017	Types of graphs, Sub graphs and its types, Complements	,,	
4	**4/9**	09/08/2017	Handshaking lemma, problems	,,	
5	**5/9**	11/08/2017	Graph Isomorphism	,,	Assignment- I
6	**6/9**	12/08/2017	Problems on Isomorphism	,,	
7	**7/9**	14/08/2017	Walks and their classification	,,	
8	**8/9**	16/08/2017	Euler Trails and Circuits	,,	
9	**1/10**	16/08/2017	Trees: Definitions, Properties	,,	
10	**2/10**	17/08/2017	Routed Trees types, problems	,,	
11	**3/10**	19/08/2017	Problems continued	,,	
12	**4/10**	21/08/2017	Sorting, Prefix Codes	,,	
13	**5/10**	22/08/2017	Weighted Trees ,Optimal Prefix Codes	,,	

14	**6/10**	22/08/2017	Problems, Class test – Module5	,,	
15	**1/7**	23/08/2017	The Principle of Inclusion and Exclusion-problems.	‘’	
16	**2/7**	24/08/2017	The Principle of Inclusion and Exclusion-problems.	,,	
17	**3/7**	29/08/2017	Generalizations of the Principle-Problems.	,,	
18	**4/7**	30/08/2017	Derangements – Nothing is in its Right Place	,,	Assignment-II
19	**5/7**	31/08/2017	Derangements – Nothing is in its Right Place	,,	
20	**6/7**	31/08/2017	Rook Polynomials	,,	
21	**7/7**	01/09/2017	Rook Polynomials	,,	
22	**1/8**	04/09/2017	Recurrence Relations- First Order Linear Recurrence Relation	,,	
23	**2/8**	06/09/2017	Recurrence Relations- First Order Linear Recurrence Relation	‘’	
24	**3/8**	07/09/2017	The Second Order Linear Homogeneous Recurrence Relation with Constant Coefficients	,,	
25	**4/8**	08/09/2017	Class Test – Module 4	,,	
26	**1/1**	08/09/2017	Logic, Proposition, truth table, the laws of Logic	,,	
27	**2/1**	09/09/2017	Laws of Logic, Logic equivalence	,,	Assignment-III
28	**3/1**	11/09/2017	Problems on logical equivalence	,,	
29	**4/1**	13/09/2017	Problems on logical equivalence	,,	
30	**5/1**	14/09/2017	Logical Implication	,,	
31	**6/1**	15/09/2017	Argument’s validity and invalidity, Rules of inference	,,	
32	**7/1**	15/09/2017	Problems on arguments validity	‘’	
33	**8/1**	22/09/2017	Problems on arguments validity	,,	
34	**1/2**	23/09/2017	Open statement, Quantifiers, The	,,	

			use of Quantifiers,		
35	**2/2**	26/09/2017	Truth values of quantified statement	,,	
36	**3/2**	27/09/2017	Truth values of quantified statement, negation of quantified statement	,,	
37	**4/2**	28/09/2017	Theorems proof	,,	
38	**5/2**	28/09/2017	Open statement with more than one variable	,,	
39	**5/2**	03/10/2017	Two rules of inference	‘’	
40	**6/2**	4/10/2017	Problems on arguments validity	,,	
41	**7/2**	07/10/2017	Methods for proofs	,,	
42	**8/2**	09/10/2017	Methods for disproofs	,,	
43	**9/2**	10/10/2017	Class test – Module 1	,,	
44	1/5	10/10/2017	Cartesian products and Relations	,,	
45	2/5	11/10/2017	Functions and types	,,	
46	3/5	12/10/2017	Properties of functions	,,	
47	4/5	14/10/2017	Stirling numbers of the second kind,	‘’	Assignment-IV
48	5/5	16/10/2017	The Pigeon-hole Principle	,,	
49	**6/5**	17/10/2017	The Pigeon-hole Principle	,,	
50	**7/5**	17/10/2017	Function Composition and Inverse functions	,,	
51	**8/5**	23/10/2017	Function Composition and Inverse functions	,,	
52	**1/6**	24/10/2017	zero-one matrices and directed graphs, properties of relations	,,	
53	**2/6**	26/10/2017	Equivalence relations and Partitions	,,	
54	**3/6**	27/10/2017	Partial orders-Hasse diagrams	,,	

55	**4/6**	28/10/2017	Extremal elements in Posets	‘’	
56	**1/3**	28/10/2017	Mathematical Induction method	’’	
57	**2/3**	30/10/2017	Problems on Mathematical Induction method	’’	Assignment - V
58	**3/3**	31/10/2017	Recursive definitions	’’	
59	**4/3**	3/11/2017	Recursive definitions problems	’’	
60	**5/4**	4/11/2017	The Rules of Sum and Product, Permutations	’’	
61	**6/4**	9/11/2017	Combinations	’’	
62	**7/4**	9/11/2017	Problems on Permutations & Combinations	’’	
63	**8/4**	10/11/2017	Problems on Permutations & Combinations	’’	
64	**9/4**	13/11/2017	Binomial and multinomial Theorems	’’	
65	**10/4**	15/11/2017	Combination with repetition	’’	
66	**11/4**	16/11/2017	Combination with repetition	’’	

See calendar of events for the schedules of IATs.

Sessional	**Syllabus**
T1	Class 01-25
T2	Class 26-54
T3	Class 55-66

Literature:

Book Type	**Code**	**Author & Title**	**Publication information**	
			Edition & Publisher	**ISBN**
Text Book	TB1	Ralph P Grimaldi B.V.Ramana Discrete and Combinatorial Mathematics, “An Applied Introduction”	5th edition Pearson Education 2004	
References	RB1	Kenneth H Rosen Discrete Mathematics and its applications	7th edition McGraw Hill 2010	

References	RB2	Jayant Ganguly A Treatise on Discrete Mathematical Structures	Pearson 2010	
References	RB3	D.S.Malik and M.K.Sen Discrete Mathematics: Theory and its applications	Cengage Learning 2004	
References	RB4	Thomas Koshy Discrete Mathematics with Applications	Elsevier 2005	