

CMR Institute of Technology



SEMESTER : VI - A

NAME OF THE FACULTY : Mr. Manoj Challa

BRANCH : ISE

DATE OF COMMENCEMENT : 27.01.2016

SUBJECT NAME: Management & Entrepreneurship

DATE OF CLOSING : 21.05.2016

SUBJECT CODE: 10AL61

CLASS STRENGTH : 48

NO OF HRS/WK: 5

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	27/01/2016	Unit-1: Management Introduction – Meaning, Nature and characteristics of Management	PPT, Board, chalk, duster		
2.	2/1	28/01/2016	Scope and functional areas of Management	"		
3.	3/1	30/01/2016	Management as a Science, Art or Profession	"		
4.	4/1	1/02/2016	Management & Administration	"	Assignment-1	
5.	5/1	2/02/2016	Roles of Management, Levels of Management	"		
6.	6/1	3/02/2016	Development of Management Thought-Early Management Approaches	"		
7.	7/1	4/02/2016	Development of Management Thought-Early	"		

			Management Approaches			
8.	8/1	8/02/2016	Modern Management Approaches	"		
9.	1/2	9/02/2016	Unit-2: Planning Nature, importance and purpose of planning process Objectives	"		
10.	2/2	10/02/2016	Types of plans (Meaning only),	"		
11.	3/2	11/02/2016	Decision making	"		
12.	4/2	12/02/2016	Importance of planning	"		
13.	5/2	15/02/2016	steps in planning	"		
14.	6/2	16/02/2016	Planning premises	"	ASSIGNMENT -2	
15.	7/2	17/02/2016	Planning premises	"		
16.	8/2	18/02/2016	Hierarchy of plans	"		
17.	1/3	22/02/2016	Unit-3: Organising And Staffing Nature and purpose of organization Principles of organization	"		
18.	2/3	24/02/2016	Types of organization	"		
19.	3/3	25/02/2016	Departmentation Committees	"		
20.	4/3	26/02/2016	Centralization Vs Decentralization of authority	"		
21.	5/3	29/02/2016	Responsibility, Span of control	"	ASSIGNMENT -3	
22.	6/3	01/03/2016	MBO and MBE	"		
23.	7/3	03/03/2016	Nature and importance of Staffing	"		
24.	8/3	04/03/2016	Process of Selection & Recruitment	"		
25.	1/5	05/03/2016	Unit-5: Entrepreneur Meaning of Entrepreneur	"		
26.	2/5	08/03/2016	Evolution of the Concept, Functions of an Entrepreneur	"		

27.	3/5	09/03/2016	Types of Entrepreneur	"		
28.	4/5	11/03/2016	Intrapreneur - - an emerging Class	"		
29.	5/5	17/03/2016	Concept of Entrepreneurship, Evolution of Entrepreneurship	"		
30.	6/5	18/03/2016	Development of Entrepreneurship, Stages in entrepreneurial process	"	ASSIGNMENT -4	
31.	7/5	19/03/2016	Role of entrepreneurs in Economic Development,	"		
32.	8/5	21/03/2016	Entrepreneurship in India, Entrepreneurship – its Barriers	"		
33.	1/6	23/03/2016	Unit-6: Small Scale Industry Definition; Characteristics, Need and rationale	"		
34.	2/6	24/03/2016	Objectives, Scope role of SSI in Economic Development	"		
35.	3/6	28/03/2016	Advantages of SSI	"		
36.	4/6	29/03/2016	Steps to start an SSI -Government policy towards SSI	"		
37.	5/6	30/03/2016	Different Policies of S.S.I., Government Support for S.S.I. during 5 year plans	"	ASSIGNMENT -5	
38.	6/6	1/04/2016	Impact of Liberalization, Privatization, Globalization on S.S.I,	"		
39.	7/6	2/04/2016	Effect of WTO/GATT Supporting Agencies of Government for S.S.I	"		
40.	8/6	4/04/2016	Meaning, Nature of Support, Objectives; Functions,	"		
41.	9/6	5/04/2016	Types of Help; Ancillary Industry and Tiny Industry	"		
42.	1/8	6/04/2016	Unit-8: Preparation Of Project Meaning of Project	"		
43.	2/8	11/04/2016	Project Identification,	"		
44.	3/8	12/04/2016	Project Selection Project Report	"	ASSIGNMENT -6	

45.	4/8	13/04/2016	Need and Significance of Report	"		
46.	5/8	15/04/2016	Contents; formulation;	"		
47.	6/8	16/04/2016	Guidelines by Planning Commission for Project report	"		
48.	7/8	20/04/2016	Network Analysis, Errors of Project Report	PPT, Board, chalk, duster		
49.	8/8	21/04/2016	Appraisal Identification of Business Opportunities , Market Feasibility Study			
50.	9/8	22/04/2016	Technical Feasibility Study, Financial Feasibility Study & Social Feasibility Study.	"		
51.	1/4	23/04/2016	Unit-4: Directing & Controlling Meaning and nature of directing Leadership styles	"		
52.	2/4	28/04/2016	Motivation Theories, Communication - Meaning and importance	"		
53.	3/4	30/04/2016	Coordination meaning and importance and Techniques of Co – ordination	"	ASSIGNMENT -7	
54.	4/4	2/05/2016	Meaning and steps in controlling	"		
55.	5/4	3/05/2016	Methods of establishing control	"		
56.	6/4	4/05/2016	Essentials of a sound control system	"		
57.	1/7	5/05/2016	Unit-7: Institutional Support Different Schemes	PPT, Board, chalk, duster		
58.	2/7	7/05/2016	TECKSOK; KIADB, KSSIDC; KSIMC SISI;	"	ASSIGNMENT -8	

59.	3/7	10/05/2016	NSIC, DIC Single Window Agency	"		
60.	4/7	11/05/2016	SIDBI; KSFC	"		

Syllabus for Sessionals:*

Sessionals #	Syllabus
T1	Class # 01 – 024
T2	Class # 25 – 50
IT	Class # 51 – 60

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

Literature:

Book Type	Code	Author & Title	Publication information	
			Edition // Publisher	ISBN #
Text Book	TB1	Principles of Management - P. C. Tripathi, P. N. Reddy	Tata McGraw Hill, 4th Edition, 2010.	<u>0070220883</u>
Text Book	TB2	Dynamics of Entrepreneurial Development & Management – Vasant Desai Himalaya	Publishing House.	978-93-5097-028-7
Text Book	TB3	Entrepreneurship Development - Small Business Enterprises Poornima M Charantimath	Pearson Education – 2006.	<u>8131767809</u>
Reference	RB1	Management Fundamentals - Concepts, Application, Skill Development Robert Lusier	Thomson	978-1111577520
Reference	RB2	Entrepreneurship Development - S S Khanka	S Chand & Co.	9788121918015
Reference	RB3	Management - Stephen Robbins	Pearson Education /PHI - 17th Edition, 2003	9780132163842

Note : From time to time, assignments will be posted on

<https://sites.google.com/a/cmrit.ac.in/manoj-c5559>

CMR Institute of Technology



SEMESTER : VI - B	NAME OF THE FACULTY : Mr. Manoj Challa
BRANCH : ISE	DATE OF COMMENCEMENT : 27.01.2016
SUBJECT NAME: Management & Entrepreneurship	DATE OF CLOSING : 21.05.2016
SUBJECT CODE: 10AL61	CLASS STRENGTH : 50
NO OF HRS/WK: 5	TOTAL HRS : 60

Session No	Chapter no (No of hrs planned 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	27/01/2016	Unit-1: Management Introduction – Meaning, Nature and characteristics of Management	PPT, Board, chalk, duster		
2.	2/1	29/01/2016	Scope and functional areas of Management	"		
3.	3/1	30/01/2016	Management as a Science, Art or Profession	"		
4.	4/1	1/02/2016	Management & Administration	"	Assignment-1	
5.	5/1	2/02/2016	Roles of Management, Levels of Management	"		
6.	6/1	3/02/2016	Development of Management Thought-Early Management Approaches	"		
7.	7/1	5/02/2016	Development of Management Thought-Early Management Approaches	"		
8.	8/1	8/02/2016	Modern Management Approaches	"		
9.	1/2	9/02/2016	Unit-2: Planning Nature, importance and purpose of planning process Objectives	"		

10.	2/2	10/02/2016	Types of plans (Meaning only),	"		
11.	3/2	11/02/2016	Decision making	"		
12.	4/2	13/02/2016	Importance of planning	"		
13.	5/2	15/02/2016	steps in planning	"		
14.	6/2	16/02/2016	Planning premises	"	ASSIGNMENT -2	
15.	7/2	17/02/2016	Planning premises	"		
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21.	5/3	29/02/2016	Responsibility, Span of control	"	ASSIGNMENT -3	
22.	6/3	02/03/2016	MBO and MBE	"		
23.	7/3	03/03/2016	Nature and importance of Staffing	"		
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25.	1/5	05/03/2016	Unit-5: Entrepreneur Meaning of Entrepreneur	"		
26.	2/5	08/03/2016	Evolution of the Concept, Functions of an Entrepreneur	"		
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33.	1/6	23/03/2016	Unit-6: Small Scale Industry Definition; Characteristics, Need and rationale	"		
34.	2/6	24/03/2016	Objectives, Scope	"		

			role of SSI in Economic Development			
35.	3/6	28/03/2016	Advantages of SSI	"		
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37.	5/6	31/03/2016	Different Policies of S.S.I., Government Support for S.S.I. during 5 year plans	"	ASSIGNMENT -5	
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			styles			
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59.	3/7	10/05/2016	NSIC, DIC Single Window Agency	"		
60.	4/7	11/05/2016	SIDBI; KSFC	"		

Syllabus for Sessionals:*

Sessionals #	Syllabus
T1	Class # 01 – 024
T2	Class # 25 – 50
IT	Class # 51 – 60

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

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Reference	RB1	Management Fundamentals - Concepts, Application, Skill Development Robert Lusier	Thomson	978-1111577520

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**CMR INSTITUTE
OF TECHNOLOGY**

Session wise – Course Plan

Department of Information Science and Engineering

SEMESTER : VI –A NAME OF THE FACULTY : Shilpa Pande
 BRANCH : ISE DATE OF COMMENCEMENT : 27/1/2016
 SUBJECT : Unix System Programming DATE OF CLOSING : 11/5/16
 SUBJECT CODE : 10CS62 CLASS STRENGTH : 48
 NO OF HRS/WK : 5 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	28/1/16	UNIT – 1 Introduction: UNIX AND ANSI STANDARDS: The ANSI C Standard, The ANSI/ ISO C++ Standards	Chalk & Duster		
2	2/1	28/1/16	Difference between ANSI C and C++, The POSIX Standards, The POSIX.1FIPS Standard	”		
3	3/1	29/1/16	The X/ Open Standards. UNIX and POSIX APIs: The POSIX APIs,	”		

4	4/1	1/2/16	The UNIX and POSIX Development Environment,	„	Assignment- I	
5	5/1	2/2/16	API Common characteristics, Revision	„		
6	1/2	4/2/16	UNIT – 2 UNIX Files: File Types	„		
7	2/2	4/2/16	The UNIX and POSIX File System, The UNIX and POSIX file attributes,	“		
8	3/2	5/2/16	Inodes in UNIX System V, Application Program interface to files	„		
9	4/2	9/2/16	Inodes in UNIX System V	„		
10	5/2	10/2/16	Application Program interface to files UNIX , Inodes in UNIX System V	„	Assignment -II	
11	6/2	12/2/16	Application Program interface to files Hard and Symbolic Links, Revision	„		
12	1/3	12/2/16	UNIT – 3 UNIX File APIs: General File APIs, File and Record locking	„		
13	2/3	13/2/16	Directory file APIs, Device file API	„		
14	3/3	16/2/16	, FIFO file APIs,	„		
15	4/3	17/2/16	Symbolic Link File APIs ,General File class,	“		
16	5/3	22/2/16	Dirfile class for directory files	„		
17	6/3	22/2/16	FIFO file class, Device file class,	„	Assignment –III	
18	7/3	23/2/16	Symbolic Link file class, File listing program ,Revision	„		
19	1/5	25/2/16	UNIT - 5 Process Control: Introduction, Process identifiers, fork, vfork,	„		
20	2/5	26/2/16	exit, wait, waitpid, wait3, wait4 functions	„		

21	3/5	1/3/16	Race conditions, exec functions, , Changing User IDs and group IDs,	”		
22	4/5	1/3/16	Interpreter files, System function, Process accounting,	”		
23	5/5	2/3/16	User identification, Process times, I/O Redirection. Process Relationships: Introduction	”		
24	6/5	4/3/16	Terminal Logins Network Logins, Process groups, Sessions, Controlling Terminal	”	Assignme nt –IV	
25	7/5	5/3/16	tcgetpgrp and tcsetpgrp functions, job control, Shell execution of programs, Orphaned process groups, Revision	”		
26	1/6	9/3/16	UNIT - 6 Signals and Daemon Processes: Signals: The UNIX Kernel support for signals,	”		
27	2/6	9/3/16	signal, Signal Mask	”		
28	3/6	10/3/16	sigaction, The SIGCHLD signal	”		
29	4/6	17/3/16	the waitpid function, The setjmp and setlongjmp functions,	”		
30	5/6	18/3/16	Kill, alarm, interval timers, POSIX.lb timers.	”		
31	6/6	21/3/16	Daemon Processes : Introduction, Daemon characteristics, coding Rules	”	Assignme nt -V	
32	7/6	21/3/16	Error Logging, client-server model, Revision	”		
33	1/7	22/3/16	UNIT - 7 Interprocess Communication 1: Overview of IPC	”		
34	2/7	24/3/16	Methods, pipes	”		
35	3/7	28/3/16	popen, pclose functions	”		

36	4/7	30/3/16	Coprocessors,	”		
37	5/7	30/3/16	FIFOs	”		
38	6/7	31/3/16	System V IPC, Message queues	”	Assignment -VI	
39	7/7	2/4/16	Semaphores, Revision	”		
40	1/4	4/4/16	UNIT - 4 UNIX Processes: The Environment of UNIX process- Introduction,	”		
41	2/4	6/4/16	main function, Process Termination	”		
42	3/4	6/4/16	Command-line Arguments, Environment list,	”		
43	4/4	7/4/16	Memory layout of a C program, Shared Libraries, Memory allocation	”		
44	5/4	12/4/16	Environment variables, setjmp and longjmp functions	”		
45	6/4	13/4/16	getrlimit, setrlimit functions	”	Assignment -VII	
46	7/4	16/4/16	UNIX Kernel support for processes ,Revision	”		
47	1/8	16/4/16	UNIT – 8 Interprocess Communication 2: Shared Memory,	”		
48	2/8	18/4/16	Client-Server Properties	”		
49	3/8	21/4/16	Stream Pipes Passing File Descriptors,	”		
50	4/8	22/4/16	An Open Server-Version 1	”		
51	5/8	28/4/16	An Open Server-Version 1	”		
52	6/8	29/4/16	Client-Server Connection Functions	”	Assignment -VIII	
53	7/8	2/5/16	Client-Server Connection Functions	”		

54		3/5/16	Revision	”		
55		5/5/16	Revision	”		
56		5/5/16	Revision	”		
57		6/5/16	Revision	”		
58		7/5/16	Revision	”		
59		10/5/16	Revision	”		
60		11/5/16	Revision	”		

Syllabus for Internal Assessment Tests (IAT) *

IAT #	Syllabus
IAT-1	Class # 01 – 18
IAT-2	Class # 26 – 46

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

Literature:

Book Type	Code	Author & Title	Publication information	
			Edition // Publisher	ISBN #
Text Book	TB1	Terrance Chan: UNIX System Programming Using C++ (Chapters 1, 5, 6, 7, 8, 9, 10)	Prentice Hall India, 1999.	9788120314689
Text Book	TB2	W. Richard Stevens: Advanced Programming in the UNIX Environment (Chapters 7, 8, 9, 13, 14, 15)	2 nd Edition, Pearson Education, 2005.	9788131700051
Reference	RB1	Marc J. Rochkind: Advanced UNIX Programming.	2 nd Edition, Pearson Education, 2005	9780131411548
Reference	RB1	Uresh Vahalia: Unix Internals: The new Frontiers.	Pearson Education, 2001	8178084007

Department of Information Science and Engineering

SEMESTER : VI –B
 BRANCH : ISE
 SUBJECT : Unix System Programming
 SUBJECT CODE : 10CS62
 NO OF HRS/WK : 5

NAME OF THE FACULTY : Shilpa Pande
 DATE OF COMMENCEMENT : 27/1/2016
 DATE OF CLOSING : 11/5/16
 CLASS STRENGTH : 50
 TOTAL HRS : 60

Sessi on No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignm ents/ Tests planned for the chapter	Topics covered As per plan
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2	2/1	28/1/16	Difference between ANSI C and C++, The POSIX Standards, The POSIX.1FIPS Standard	”		
3	3/1	29/1/16	The X/ Open Standards. UNIX and POSIX APIs: The POSIX APIs,	”		
4	4/1	1/2/16	The UNIX and POSIX Development Environment,	”	Assignm ent- I	
5	5/1	2/2/16	API Common characteristics, Revision	”		
6	1/2	3/2/16	UNIT – 2 UNIX Files: File Types	”		
7	2/2	4/2/16	The UNIX and POSIX File System, The UNIX and POSIX file attributes,	”		
8	3/2	5/2/16	Inodes in UNIX System V, Application Program interface to files	”		
9	4/2	9/2/16	Inodes in UNIX System V	”		
10	5/2	10/2/16	Application Program interface to files UNIX , Inodes in UNIX System V	”	Assignm ent -II	

11	6/2	11/2/16	Application Program interface to files Hard and Symbolic Links, Revision	”		
12	1/3	12/2/16	UNIT – 3 UNIX File APIs: General File APIs, File and Record locking	”		
13	2/3	13/2/16	Directory file APIs, Device file API	”		
14	3/3	16/2/16	, FIFO file APIs,	”		
15	4/3	17/2/16	Symbolic Link File APIs ,General File class,	”		
16	5/3	18/2/16	Dirfile class for directory files	”		
17	6/3	22/2/16	FIFO file class, Device file class,	”	Assignment –III	
18	7/3	23/2/16	Symbolic Link file class, File listing program ,Revision	”		
19	1/5	25/2/16	UNIT - 5 Process Control: Introduction, Process identifiers, fork, vfork,	”		
20	2/5	26/2/16	exit, wait, waitpid, wait3, wait4 functions	”		
21	3/5	29/2/16	Race conditions, exec functions, , Changing User IDs and group IDs,	”		
22	4/5	1/3/16	Interpreter files, System function, Process accounting,	”		
23	5/5	2/3/16	User identification, Process times, I/O Redirection. Process Relationships: Introduction	”		
24	6/5	4/3/16	Terminal Logins Network Logins, Process groups, Sessions, Controlling Terminal	”	Assignment –IV	
25	7/5	5/3/16	tcgetpgrp and tcsetpgrp functions, job control, Shell execution of programs, Orphaned process groups, Revision	”		
26	1/6	8/3/16	UNIT - 6 Signals and Daemon Processes: Signals: The UNIX Kernel support for signals,	”		
27	2/6	9/3/16	signal, Signal Mask	”		
28	3/6	10/3/16	sigaction, The SIGCHLD signal	”		
29	4/6	17/3/16	the waitpid function, The setjmp and setlongjmp functions,	”		
30	5/6	18/3/16	Kill, alarm, interval timers, POSIX.lb timers.	”		

31	6/6	19/3/16	Daemon Processes : Introduction, Daemon characteristics, coding Rules	„	Assignment -V	
32	7/6	21/3/16	Error Logging, client-server model, Revision	“		
33	1/7	22/3/16	UNIT - 7 Interprocess Communication 1: Overview of IPC	„		
34	2/7	24/3/16	Methods, pipes	„		
35	3/7	28/3/16	popen, pclose functions	„		
36	4/7	29/3/16	Coprocessors,	„		
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38	6/7	31/3/16	System V IPC, Message queues	„	Assignment -VI	
39	7/7	2/4/16	Semaphores, Revision	“		
40	1/4	4/4/16	UNIT - 4 UNIX Processes: The Environment of UNIX process- Introduction,	„		
41	2/4	5/4/16	main function, Process Termination	„		
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43	4/4	7/4/16	Memory layout of a C program, Shared Libraries, Memory allocation	„		
44	5/4	12/4/16	Environment variables, setjmp and longjmp functions	„		
45	6/4	13/4/16	getrlimit, setrlimit functions	„	Assignment -VII	
46	7/4	15/4/16	UNIX Kernel support for processes ,Revision	„		
47	1/8	16/4/16	UNIT – 8 Interprocess Communication 2: Shared Memory,	“		
48	2/8	18/4/16	Client-Server Properties	„		
49	3/8	21/4/16	Stream Pipes Passing File Descriptors,	„		
50	4/8	22/4/16	An Open Server-Version 1	„		

51	5/8	23/4/16	An Open Server-Version 1	”		
52	6/8	28/4/16	Client-Server Connection Functions	”	Assignment -VIII	
53	7/8	29/4/16	Client-Server Connection Functions	”		
54		2/5/16	Revision	”		
55		3/5/16	Revision	”		
56		4/5/16	Revision	”		
57		5/5/16	Revision	”		
58		6/5/16	Revision	”		
59		10/5/16	Revision	”		
60		11/5/16	Revision	”		

Syllabus for Internal Assessment Tests (IAT) *

IAT #	Syllabus
IAT-1	Class # 01 – 18
IAT-2	Class # 26 – 46

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

Literature:

Book Type	Code	Author & Title	Publication information	
			Edition // Publisher	ISBN #
Text Book	TB1	Terrance Chan: UNIX System Programming Using C++ (Chapters 1, 5, 6, 7, 8, 9, 10)	Prentice Hall India, 1999.	9788120314689
Text Book	TB2	W. Richard Stevens: Advanced Programming in the UNIX Environment (Chapters 7, 8, 9, 13, 14, 15)	2 nd Edition, Pearson Education, 2005.	9788131700051
Reference	RB1	Marc J. Rochkind: Advanced UNIX Programming.	2 nd Edition, Pearson Education, 2005	9780131411548
Reference	RB1	Uresh Vahalia: Unix Internals: The new Frontiers.	Pearson Education, 2001	8178084007



**CMR INSTITUTE
OF TECHNOLOGY**

Session wise – Course Plan

Department of Computer Science and Engineering

SEMESTER : VI -A
BRANCH : ISE
SUBJECT : File Structures
SUBJECT CODE : 10IS63
NO OF HRS/WK : 5

NAME OF THE FACULTY : Mrs .S.Geetha
DATE OF COMMENCEMENT : 25/01/2016
DATE OF CLOSING : 21/05/2016
CLASS STRENGTH : 48
TOTAL HRS : 62

Sessi on No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignm ents/ Tests planned for the chapter	Topics covere d As per plan
1	1/1	25/01/2016	(UT-1)File Structures: The Heart of the file structure Design, Fundamental.	Chalk & Talk		
2	2/1	27/01/2016	A Short History of File Structure Design.A Conceptual Toolkit;	”		
3	3/1	29/01/2016	File Operations: Physical Files and Logical Files Opening Files, Closing Files,Reading and Writing, Seeking.	”	Assignm ent- I	
4	4/1	30/01/2016	The Unix Directory Structure.Physical devices and Logical Files, File-related Header Files, UNIX file System Commands.	”		
5	5/1	01/02/2016	Secondary Storage and System Software: Disks, Magnetic Tape, Disk versus Tape	”		
6	6/1	02/02/2016	Special Characters,.CD-ROM: Introduction, Physical Organization Strengths and Weaknesses; Storage as Hierarchy, A journey of a Byte Buffer Management, Input /Output in UNIX. Revision	”		
7	1/2	04/02/2016	(UT-2) UNIT – 2 : Fundamental File Structure Concepts,	”		
8	2/2	05/02/2016	Managing Files of Record	”		
9	3/2	08/02/2016	Using Classes to Manipulate Buffers, Using Inheritance for Record Buffer Classes	”		

10	4/2	09/02/2016	Field and Record Organization, ,Managing Fixed Length, Fixed Field Buffers	„	Assignm ent -II	
11	5/2	10/02/2016	Records ,An Object-Oriented Class for Record Files	”		
12	6/2	11/02/2016	Access More about Record Structures, Encapsulating Record	„		
13	7/2	13/02/2016	File Access and File Organization	„		
14	8/2	15/02/2016	Operations in a Single Class	„		
15	1/3	16/02/2016	(UT-3) Organization of Files for Performance	‘		
16	2/3	17/02/2016	IndexingData Compression, Reclaiming Space in files	„		
17	3/3	18/02/2016	Internal Sorting and Binary Searching. Keysorting	„	Assignm ent -III	
18	4/3	23/02/2016	What is an Index? A Simple Index for Entry-Sequenced File.	„		
19	5/3	24/02/2016	Using Template Classes in C++ for Object I/O, Object-Oriented support for Indexed	„		
20	6/3	25/02/2016	Entry-Sequenced Files of Data Objects, Indexes that are too large to hold in Memory	„		
21	7/3	26/02/2016	Selective indexes, Binding.Indexing to provide access by Multiple keys	„		
22	8/3	29/02/2016	Retrieval,Using Combinations of Secondary Keys Improving the Secondary Index structure: Inverted Lists	„		
23	1/4	29/02/2016	(UT-4) Cosequential Processing	‘		
24	2/4	02/03/2016	A Model for Implementing Cosequential Processes	„	Assignm ent -IV	
25	3/4	02/03/2016	Application of the Model to a General Ledger Program	„		
26	4/4	03/03/2016	Extension of the Model to include Mutiway	„		
27	5/4	03/03/2016	Merging,A Second Look at Sorting in Memory	„		
28	6/4	04/03/2016	Merging as a Way of Sorting Large Files on Disk	„		
29	7/4	04/03/2016	Merging as a Way of Sorting Large Files on Disk	„		
30	8/4	05/03/2016	Sorting of Large Files	„		

31	9/4	05/03/2016	Sorting of Files with structure, Revision	”		
32	1/7	10/03/2016	Hashing: Introduction , A Simple Hashing Algorithm	“		
33	2/7	11/03/2016	Hashing Functions	”	Assignm ent -V	
34	3/7	17/03/2016	Record Distribution	”		
35	4/7	18/03/2016	How much Extra Memory should be used	”		
36	5/7	19/03/2016	Collision resolution by progressive overflow Buckets	”		
37	6/7	22/03/2016	Other collision resolution techniques	”		
38	7/7	23/03/2016	Patterns of record access, Making deletions, Revision	”		
39	1/8	24/03/2016	(UT-8) Extendible Hashing	“		
40	2/8	28/03/2016	Extendible Hashing Works	”		
41	3/8	29/03/2016	How Extensible Hashing Works	”	Assignm ent -VI	
42	4/8	31/03/2016	Implementation	”		
43	5/8	04/4/2016	Extendible Hashing Performance	”		
44	6/8	05/4/2016	Alternative Approaches	”		
45	7/8	07/4/2016	Deletion	”		
46	8/8	11/4/2016	Revision	”		
47	1/5	12/4/5016	(UT-5) Multi-Level Indexing and B-Tree	“		
48	2/5	13/4/2016	The invention of B-Tree, Virtual BTrees,	”		
49	3/5	15/4/2016	Statement of the problem, Indexing with Binary Search Trees	”	Assignm ent -VII	
50	4/5	18/4/2016	Multi-Level Indexing, BTrees, An Object-Oriented Representation of B-Trees	”		
51	5/5	20/4/2016	B-Tree Methods,Nomenclature	”		

52	6/5	21/4/2016	Formal Definition of B-Tree Properties	”		
53	7/5	22/4/2016	Worst-case Search Depth, Deletion, Merging and Redistribution, Redistribution during insertion	”		
54	8/5	23/4/2016	B* Trees, Buffering of pages; Variable-length Records and keys.	”		
55	1/6	29/4/2016	(UT-6) Indexed Sequential File Access and Prefix B + Trees	”		
56	2/6	30/04/2016	Indexed Sequential Access, A Variable-order B- Tree, Loading a Simple Prefix B+ Trees	”	Assignment -VIII	
57	3/6	02/05/2016	B-Trees, Maintaining a Sequence Set, Adding a Simple Index to the Sequence Set	”		
58	4/6	03/05/2016	The Content of the Index: Separators Instead of Keys, The Simple Prefix B+ Tree and its maintenance	”		
59	5/6	04/05/2016	Index Set Block Size, Internal Structure of Index Set Blocks	”		
60	6/6	06/05/2016	B+ Trees and Simple Prefix B+ Trees in Perspective	”		
61	7/6	07/05/2016	Revision	”		
62	8/6	10/05/2016	Revision	”		

Syllabus for Internal Assessment Tests (IAT) *

Sessional #	Syllabus
T1	Class # 01 - 31
T2	Class # 31 – 54
T3	Class # 55 – 62

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

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB1	Michael J. Folk, Bill Zoellick, Greg Riccardi , “File Structures-An Object Oriented Approach with C++ “. 3rd Edition, Pearson Education, 1998.	3 rd Edition, Pearson Education, 1998.	978-81-317-5904- 2
Text Book	TB2	K.R. Venugopal, K.G. Srinivas, P.M. Krishnaraj “ File Structures Using C++ “.	Tata McGraw-Hill, 2002.	1565920007, 9781565920002
References	RB1	Scot Robert Ladd , “ C++ Components and Algorithms”.	BPB Publications, 1993.	1449335942

Signature of faculty

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#132, AECS Layout, IT Park Road, Kundalahalli, Bangalore – 560 037

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**CMR INSTITUTE
OF TECHNOLOGY**

Session wise – Course Plan

Department of Information Science and Engineering

SEMESTER : VI-B
NAME OF THE FACULTY : Mrs .S.Geetha
BRANCH : ISE
DATE OF COMMENCEMENT : 25/01/2016
SUBJECT : File Structures
DATE OF CLOSING : 21/05/2016
SUBJECT CODE : 10IS63
CLASS STRENGTH : 50
NO OF HRS/WK : 5
TOTAL HRS : 62

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	25/01/2016	(UT-1)File Structures: The Heart of the file structure Design,	Chalk & Talk		

			Fundamental.			
2	2/1	27/01/2016	A Short History of File Structure Design.A Conceptual Toolkit;	„		
3	3/1	28/01/2016	File Operations: Physical Files and Logical Files Opening Files, Closing Files,Reading and Writing, Seeking.	„	Assignme nt- I	
4	4/1	30/01/2016	The Unix Directory Structure.Physical devices and Logical Files, File-related Header Files, UNIX file System Commands.	„		
5	5/1	01/02/2016	Secondary Storage and System Software: Disks, Magnetic Tape, Disk versus Tape	„		
6	6/1	02/02/2016	Special Characters,.CD-ROM: Introduction, Physical Organization Strengths and Weaknesses; Storage as Hierarchy, A journey of a Byte Buffer Management, Input /Output in UNIX. Revision	„		
7	1/2	03/02/2016	(UT-2) UNIT – 2 : Fundamental File Structure Concepts,	„		
8	2/2	04/02/2016	Managing Files of Record	„		
9	3/2	08/02/2016	Using Classes to Manipulate Buffers, Using Inheritance for Record Buffer Classes	„		
10	4/2	09/02/2016	Field and Record Organization, ,Managing Fixed Length, Fixed Field Buffers	„	Assignme nt -II	
11	5/2	10/02/2016	Records ,An Object-Oriented Class for Record Files	„		
12	6/2	11/02/2016	Access More about Record Structures, Encapsulating Record	„		
13	7/2	12/02/2016	File Access and File Organization	„		
14	8/2	15/02/2016	Operations in a Single Class	„		
15	1/3	16/02/2016	(UT-3)	„		

			Organization of Files for Performance			
16	2/3	17/02/2016	IndexingData Compression, Reclaiming Space in files	”		
17	3/3	18/02/2016	Internal Sorting and Binary Searching. Keysorting	”	Assignme nt –III	
18	4/3	22/02/2016	What is an Index? A Simple Index for Entry-Sequenced File.	”		
19	5/3	24/02/2016	Using Template Classes in C++ for Object I/O, Object-Oriented support for Indexed	”		
20	6/3	25/02/2016	Entry-Sequenced Files of Data Objects, Indexes that are too large to hold in Memory	”		
21	7/3	26/02/2016	Selective indexes, Binding.Indexing to provide access by Multiple keys	”		
22	8/3	29/02/2016	Retrieval,Using Combinations of Secondary Keys Improving the Secondary Index structure: Inverted Lists	”		
23	1/4	01/03/2016	(UT-4) Cosequential Processing	”		
24	2/4	03/03/2016	A Model for Implementing Cosequential Processes	”	Assignme nt –IV	
25	3/4	04/03/2016	Application of the Model to a General Ledger Program	”		
26	4/4	05/03/2016	Extension of the Model to include Mutiway	”		
27	5/4	08/03/2016	Merging,A Second Look at Sorting in Memory	”		
28	6/4	09/03/2016	Merging as a Way of Sorting Large Files on Disk	”		
29	7/4	11/03/2016	Merging as a Way of Sorting Large Files on	”		

			Disk			
30	8/4	17/03/2016	Sorting of Large Files	„		
31	9/4	18/03/2016	Sorting of Files with structure, Revision	„		
32	1/7	19/03/2016	Hashing: Introduction , A Simple Hashing Algorithm	“		
33	2/7	21/03/2016	Hashing Functions	„	Assignme nt -V	
34	3/7	23/03/2016	Record Distribution	„		
35	4/7	24/03/2016	How much Extra Memory should be used	„		
36	5/7	28/03/2016	Collision resolution by progressive overflow Buckets	„		
37	6/7	29/03/2016	Other collision resolution techniques	„		
38	7/7	30/03/2016	Patterns of record access, Making deletions, Revision	„		
39	1/8	01/4/2016	(UT-8) Extendible Hashing	“		
40	2/8	02/4/2016	Extendible Hashing Works	„		
41	3/8	04/4/2016	How Extensible Hashing Works	„	Assignme nt -VI	
42	4/8	05/4/2016	Implementation	„		
43	5/8	06/4/5016	Extendible Hashing Performance	„		
44	6/8	11/4/2016	Alternative Approaches	„		
45	7/8	12/4/2016	Deletion	„		
46	8/8	13/4/2016	Revision	„		
47	1/5	15/4/2016	(UT-5) Multi-Level Indexing and B-Tree	“		
48	2/5	16/4/2016	The invention of B-Tree, Virtual BTrees,	„		

49	3/5	20/4/2016	Statement of the problem, Indexing with Binary Search Trees	„	Assignme nt -VII	
50	4/5	21/4/2016	Multi-Level Indexing, BTrees, An Object-Oriented Representation of B-Trees	„		
51	5/5	22/4/2016	B-Tree Methods,Nomenclature	„		
52	6/5	23/04/2016	Formal Definition of B-Tree Properties	„		
53	7/5	28/04/2016	Worst-case Search Depth, Deletion, Merging and Redistribution,Redistribution during insertion	„		
54	8/5	28/04/2016	B* Trees, Buffering of pages; Variable-length Records and keys.	„		
55	1/6	30/04/2016	(UT-6) Indexed Sequential File Access and Prefix B + Trees	„		
56	2/6	30/04/2016	Indexed Sequential Access, A Variable-order B- Tree, Loading a Simple Prefix B+ Trees	„	Assignme nt -VIII	
57	3/6	02/05/2016	B-Trees,Maintaining a Sequence Set, Adding a Simple Index to the Sequence Set	„		
58	4/6	03/05/2016	The Content of the Index: Separators Instead of Keys, The Simple Prefix B+ Tree and its maintenance	„		
59	5/6	04/05/2016	Index Set Block Size, Internal Structure of Index Set Blocks	„		
60	6/6	05/05/2016	B+ Trees and Simple Prefix B+ Trees in Perspective	„		
61	7/6	07/05/2016	Revision	„		
62	8/6	10/05/2016	Revision	„		

Sessional #	Syllabus
T1	Class # 01 - 31
T2	Class # 31 – 54
T3	Class # 55 – 62

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

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB1	Michael J. Folk, Bill Zoellick, Greg Riccardi , “File Structures-An Object Oriented Approach with C++ “. 3rd Edition, Pearson Education, 1998.	3 rd Edition, Pearson Education, 1998.	978-81-317-5904-2
Text Book	TB2	K.R. Venugopal, K.G. Srinivas, P.M. Krishnaraj “ File Structures Using C++ “.	Tata McGraw-Hill, 2002.	1565920007, 9781565920002
References	RB1	Scot Robert Ladd , “ C++ Components and Algorithms”.	BPB Publications, 1993.	1449335942

Signature of faculty

Signature of HOD

Signature of Principal



**CMR INSTITUTE
OF TECHNOLOGY**

Session wise – Course Plan

Department of Information Science and Engineering

SEMESTER : VI –A
BRANCH : ISE
SUBJECT : Software Testing
SUBJECT CODE : 10IS65
NO OF HRS/WK : 5

NAME OF THE FACULTY : Lohith Raj SN
DATE OF COMMENCEMENT : 27-01-2016
DATE OF CLOSING : 11-05-2016
CLASS STRENGTH : 48
TOTAL HRS : 60

Sessi on No	Chapter no (No of hrs planned for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignm ents/ Tests planned for the chapter	Topics covered As per plan
1	1/1	28/01/2016	Prerequisites: Software Testing Life Cycle, V&V SDLC Model.	Chalk & Talk		
2	2/1	29/01/2016	UNIT 1 : Perspective on Testing, Examples : Basic concept of Software Testing, Test cases	”		
3	3/1	30/01/2016	Insights from a Venn diagram, Identifying test cases	”		
4	4/1	30/01/2016	Error and fault taxonomies, Levels of testing.	”		
5	5/1	01/02/2016	Generalized pseudo code, The triangle problem	”	Assignm ent- I	
6	6/1	04/02/2016	The NextDate problem,	”		
7	7/1	05/02/2016	The commission problem	”		
8	8/1	08/02/2016	The SATM (Simple Automatic Teller Machine) problem	”		
9	9/1	08/02/2016	The currency converter, Saturn Windshield Wiper Controller. Summary of Unit 1.	”		
10	1/2	09/02/2016	UNIT 2 : Boundary value analysis, Test Cases for Triangle Problem.	”		
11	2/2	12/02/2016	Robustness testing, Worst-casetesting, Special value testing, Random testing. Test Cases for Triangle Problem.	”	Assignm ent -II	
12	3/2	13/02/2016	Guidelines and observations of BVA for Next Date Time Problem.	”		
13	4/2	15/02/2016	Guidelines and observations of BVA for	”		

			Commission Problem.			
14	5/2	15/02/2016	Equivalence class Testing.	„		
15	6/2	16/02/2016	Equivalence test cases for the triangle problem	‘		
16	7/2	22/02/2016	Guidelines and observations of ECP for Next Date Time Problem.	„		
17	8/2	23/02/2016	Guidelines and observations of ECP for Commission Problem.	”		
18	9/2	24/02/2016	Decision table based Testing.	„		
19	10/2	24/02/2016	Decision table based test cases for the next date time problem	„		
20	11/2	25/02/2016	Decision table based test cases for the commission problem	„		
21	1/3	01/03/2016	UNIT 3: Path Testing.	„		
22	2/3	02/03/2016	DD paths, Test coverage metrics, Basis path testing.	„	Assignment –III	
23	3/3	03/03/2016	Path Testing for McCabe’s Basis Path Method.	‘		
24	4/3	03/03/2016	Use testing, Slice-based testing,	„		
25	5/3	04/03/2016	Guidelines and Observations for Binary Search Program.	„		
26	6/3	09/03/2016	Guidelines and Observations for Grading Program.	„		
27	1/4	10/03/2016	UNIT 4 : Levels of Testing:	„		
28	2/4	11/03/2016	Integration Testing, SATM system	„	Assignment –IV	
29	3/4	11/03/2016	Separating integration and system testing	„		
30	4/4	17/03/2016	A closer look at the SATM system,	„		
31	5/4	21/03/2016	Decomposition-based Integration	„		
32	6/4	22/03/2016	call graph-based, Path-based integrations.	‘		
33	1/5	23/03/2016	UNIT 5 : System Testing: Threads, Basic concepts for requirements specification	„		
34	2/5	23/03/2016	Finding threads, Structural strategies, functional strategies for thread testing	„	Assignment -V	

35	3/5	24/03/2016	SATM test threads	”		
36	4/5	30/03/2016	System testing guidelines & ASF	”		
37	5/5	31/03/2016	Context of interaction, A taxonomy of interactions	”		
38	6/5	01/04/2016	Interaction, composition, and determinism	”		
39	7/5	01/04/2016	Client/Server Testing	“		
40	1/6	02/04/2016	UNIT 6: Process Framework : Validation and verification, Degrees of freedom	”		
41	2/6	06/04/2016	Varieties of software, Basic principles Sensitivity, redundancy, Restriction, partition, visibility, Feedback.	”	Assignm ent -VI	
42	3/6	07/04/2016	The quality process, Planning and monitoring	”		
43	4/6	11/04/2016	,Quality goals, Dependability properties	”		
44	5/6	11/04/2016	Analysis, Testing,	”		
45	6/6	12/04/2016	Improving the process, Organizational factors	”		
46	1/7	16/04/2016	UNIT 7: Fault-Based Testing, Test Execution : Overview, Assumptions in fault based testing	”		
47	2/7	18/04/2016	Mutation analysis, Fault-based adequacy criteria	“	Assignm ent -VII	
48	3/7	20/04/2016	Variations on mutation analysis, Test Execution: Overview, from test case specifications to test cases	”		
49	4/7	20/04/2016	Scaffolding.	”		
50	5/7	21/04/2016	Generic versus specific scaffolding	”		
51	6/7	28/04/2016	Test oracles, Self-checks as oracles, Capture and replay	”		
52	1/8	29/04/2016	UNIT 8: Planning and Monitoring the Process	”		
53	2/8	30/04/2016	Quality and process, Test and analysis strategies and plans	”	Assignm ent -VIII	
54	3/8	30/04/2016	Risk planning	”		
55	4/8	02/05/2016	Monitoring the process, Improving the process	“		
56	5/8	05/05/2016	The quality team, Documenting Analysis and test	”		
57	6/8	06/05/2016	Organizing documents, Test strategy document	”		

58	7/8	07/05/2016	Analysis and test plan Test design specifications documents	”		
59	8/8	07/05/2016	Test and analysis reports.	”		
60	9/8	10/05/2016	Revision for all the units.	”		

Syllabus for Internal Assessment Tests (IAT) *

Sessional #	Syllabus
T1	Class # 01 - 26
T2	Class # 27-45
T3	Class# 46-60

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

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB1	Paul C. Jorgensen Software Testing	3rd Edition, Auerbach Publications, 2008.	978-0-8493-7475- 3
Text Book	TB2	Mauro Pezze, Michal Young Software Testing and Analysis Process, Principles and Techniques	Wiley India, 2009	978-81-265-1773- 2
Reference	RB1	Aditya P Mathur Foundations of Software Testing	Pearson Education, 2008.	978-81-317-0795- 1

Signature of faculty

Signature of HOD

Signature of Principal

Department of Information Science and Engineering

SEMESTER : VI –B
BRANCH : ISE
SUBJECT : Software Testing
SUBJECT CODE : 10IS65
NO OF HRS/WK : 5

NAME OF THE FACULTY : Lohith Raj SN
DATE OF COMMENCEMENT : 27-01-2016
DATE OF CLOSING : 11-05-2016
CLASS STRENGTH : 50
TOTAL HRS : 60

Sessi on No	Chapter no (No of hrs planned for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignm ents/ Tests planned for the chapter	Topics covered As per plan
1	1/1	27/01/2016	Prerequisites: Software Testing Life Cycle, V&V SDLC Model.	Chalk & Talk		
2	2/1	29/01/2016	UNIT 1 : Perspective on Testing, Examples : Basic concept of Software Testing, Test cases	”		
3	3/1	30/01/2016	Insights from a Venn diagram, Identifying test cases	”	Assignm ent- I	
4	4/1	02/02/2016	Error and fault taxonomies, Levels of testing.	”		
5	5/1	02/02/2016	Generalized pseudo code, The triangle problem	”		
6	6/1	03/02/2016	The NextDate problem,	”		
7	7/1	05/02/2016	The commission problem	”		
8	8/1	08/02/2016	The SATM (Simple Automatic Teller Machine) problem	”		
9	9/1	10/02/2016	The currency converter, Saturn Windshield Wiper Controller. Summary of Unit 1.	”		
10	1/2	10/02/2016	UNIT 2 : Boundary value analysis, Test Cases for Triangle Problem.	”	Assignm ent -II	
11	2/2	11/02/2016	Robustness testing, Worst-casetesting, Special value testing, Random testing. Test Cases for Triangle Problem.	”		
12	3/2	13/02/2016	Guidelines and observations of BVA for Next Date Time Problem.	”		

13	4/2	15/02/2016	Guidelines and observations of BVA for Commission Problem.	”		
14	5/2	17/02/2016	Equivalence class Testing.	”		
15	6/2	17/02/2016	Equivalence test cases for the triangle problem	”		
16	7/2	18/02/2016	Guidelines and observations of ECP for Next Date Time Problem.	”		
17	8/2	23/02/2016	Guidelines and observations of ECP for Commission Problem.	”		
18	9/2	24/02/2016	Decision table based Testing.	”	Assignm ent –III	
19	10/2	26/02/2016	Decision table based test cases for the next date time problem	”		
20	11/2	26/02/2016	Decision table based test cases for the commission problem	”		
21	1/3	29/02/2016	UNIT 3: Path Testing.	”		
22	2/3	02/03/2016	DD paths, Test coverage metrics, Basis path testing.	”		
23	3/3	03/03/2016	Path Testing for McCabe’s Basis Path Method.	”		
24	4/3	05/03/2016	Use testing, Slice-based testing,	”		
25	5/3	05/03/2016	Guidelines and Observations for Binary Search Program.	”		
26	6/3	08/03/2016	Guidelines and Observations for Grading Program.	”		
27	1/4	10/03/2016	UNIT 4 : Levels of Testing:	”		
28	2/4	11/03/2016	Integration Testing, SATM system	”	Assignm ent –IV	
29	3/4	18/03/2016	Separating integration and system testing	”		
30	4/4	18/03/2016	A closer look at the SATM system,	”		
31	5/4	19/03/2016	Decomposition-based Integration	”		
32	6/4	22/03/2016	call graph-based, Path-based integrations.	”		
33	1/5	23/03/2016	UNIT 5 : System Testing: Threads, Basic concepts for requirements specification	”		
34	2/5	28/03/2016	Finding threads, Structural strategies, functional strategies for thread testing	”	Assignm ent -V	

35	3/5	28/03/2016	SATM test threads	”		
36	4/5	29/03/2016	System testing guidelines & ASF	”		
37	5/5	31/03/2016	Context of interaction, A taxonomy of interactions	”		
38	6/5	01/04/2016	Interaction, composition, and determinism	”		
39	7/5	04/04/2016	Client/Server Testing	“		
40	1/6	04/04/2016	UNIT 6: Process Framework : Validation and verification, Degrees of freedom	”		
41	2/6	05/04/2016	Varieties of software, Basic principles Sensitivity, redundancy, Restriction, partition, visibility, Feedback.	”	Assignm ent -VI	
42	3/6	07/04/2016	The quality process, Planning and monitoring	”		
43	4/6	11/04/2016	,Quality goals, Dependability properties	”		
44	5/6	13/04/2016	Analysis, Testing,	”		
45	6/6	13/04/2016	Improving the process, Organizational factors	”		
46	1/7	15/04/2016	UNIT 7: Fault-Based Testing, Test Execution : Overview, Assumptions in fault based testing	”		
47	2/7	18/04/2016	Mutation analysis, Fault-based adequacy criteria	“	Assignm ent -VII	
48	3/7	20/04/2016	Variations on mutation analysis, Test Execution: Overview, from test case specifications to test cases	”		
49	4/7	22/04/2016	Scaffolding.	”		
50	5/7	22/04/2016	Generic versus specific scaffolding	”		
51	6/7	23/04/2016	Test oracles, Self-checks as oracles, Capture and replay	”		
52	1/8	29/04/2016	UNIT 8: Planning and Monitoring the Process	”		
53	2/8	30/04/2016	Quality and process, Test and analysis strategies and plans	”	Assignm ent -VIII	
54	3/8	03/05/2016	Risk planning	”		
55	4/8	03/05/2016	Monitoring the process, Improving the process	“		
56	5/8	04/05/2016	The quality team, Documenting Analysis and test	”		
57	6/8	06/05/2016	Organizing documents, Test strategy document	”		

58	7/8	07/05/2016	Analysis and test plan Test design specifications documents	”		
59	8/8	11/05/2016	Test and analysis reports.	”		
60	9/8	11/05/2016	Revision for all the units.	”		

Syllabus for Internal Assessment Tests (IAT) *

Sessional #	Syllabus
T1	Class # 01 - 26
T2	Class # 27-45
T3	Class# 46-60

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

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB1	Paul C. Jorgensen Software Testing	3rd Edition, Auerbach Publications, 2008.	978-0-8493-7475- 3
Text Book	TB2	Mauro Pezze, Michal Young Software Testing and Analysis Process, Principles and Techniques	Wiley India, 2009	978-81-265-1773- 2
Reference	RB1	Aditya P Mathur Foundations of Software Testing	Pearson Education, 2008.	978-81-317-0795- 1

Signature of faculty

Signature of HOD

Signature of Principal

CMR Institute of Technology, Bangalore

Department(s): CS and IS

Semester: 06

Section(s):CS A&B, IS

Operations Research

10CS661

Lectures/week: 06

Course Instructor(s): Asha.K.N

Course duration: 27 Jan.2016 – 23 May 2016

LESSON PLAN

Lecture #	Chapter Title/Reference Literature	Topics	Portions coverage	
			Individual	Cumulative
1-8	Introduction, Linear Programming TB1 (Chp 1.1- 1.3, 2.1 – 2.7, & 3.1 – 3.2)	Introduction: The origin, nature and impact of OR. Defining the problem and gathering data Formulating a mathematical model Deriving solutions from the model, Testing the model, Preparing to apply the model, Implementation, Introduction to Linear Programming: Prototype example;The linear programming (LP) model.	12	12
9-17	LP – 2, Simplex Method – 1 TB1 (Chp 3.3, 3.4, 4.1- 4.5)	Assumptions of LP, Additional examples, The essence of the simplex method, Setting up the simplex method, Algebra of the simplex method, Simplex method contd., the simplex method in tabular form, Tie breaking in the simplex method	13	25
18-25	Simplex Method – 2 TB1 (Chp 4.6 – 4.8, 5.1)	Adapting to other model forms, The two phase method, Post optimality analysis, Parametric linear programming, Computer implementation, Foundation of the simplex method, Extensions to the augmented form of the problem	12	37
26-33	Simplex Method – 2, Duality Theory TB1 (Chp 5.2-5.3, 6.1 – 6.4)	The revised simplex method, Simplex method :A fundamental insight, The essence of duality theory, Applications, Economic interpretation of duality, Primal dual relationship, Relationships between complementary basic solutions, Adapting to other primal forms	13	50
34-42	Duality Theory and Sensitivity Analysis, TB1 (Chp 6.5-6.7, 7.1 – 7.3)	The role of duality in sensitive analysis, The essence of sensitivity analysis, Applying sensitivity analysis, Applying sensitivity analysis-Cases contd, The dual simplex method, Parametric linear programming, Parametric linear programming contd, The upper bound technique	13	63
43-51	Transportation and Assignment Problems TB1 (Chp 8.1-8.4)	The transportation problem, Using excel to formulate and solve transportation problems, Streamlined simplex method for the transportation problem, General procedure for constructing an initial BF solution, The assignment problem, The assignment problem- Examples., Solution procedures for assignment problems, A special algorithm for the assignment problem	13	76
52-62	Game Theory, Decision Analysis TB1 (Chp 14.1-14.6, 15.1 – 15.4)	Game Theory: The formulation of two persons, zero sum games, Solving simple games- a prototype example, Games with mixed strategies, Graphical solution procedure, Solving by linear programming, Extensions, Decision Analysis: A prototype example, Decision making without experimentation Decision trees.	12	88
63-70	Metaheuristics TB1	The nature of Metaheuristics, An example- Travelling Salesman problem, Tabu Search, Minimum spanning	12	100

(Chp 13.1 – 13.4)

tree problem with constraints, Simulated Annealing, The
nonlinear programming example, Genetic Algorithms.

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Syllabus for Internal Assessment Tests (IAT)

IAT #	Syllabus
IAT-1	Class # 01 – 22
IAT-2	Class # 23 – 43
IAT-3	Class # 44 – 62

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

Literature:

Book Type	Code	Author & Title	Publication information	
			Edition // Publisher	ISBN #
Text Book	TB1	Frederick S.Hillier and Gerald J. Lieberman : Introduction to Operations Research	8 th Edition, Tata McGraw-Hill, 2005	978-0-07-060092-8
Reference	RB1	Wayne L. Winston : Operations Research Applications and Algorithms	4 th Edition, Thomson Course Technology, 2003	978-0-53-438058-8
Reference	RB2	Hamdy A Taha: Operations Research: An Introduction	8 th Edition, Prentice Hall India, 2007	978-81-317-8594-2

Note : From time to time, assignments will be posted on

<https://sites.google.com/a/cmrit.ac.in/m-kamal-kumar2624/>

Department of Computer Science and Engineering

SEMESTER : VI-A	NAME OF THE FACULTY : Rajeev Bakshi
BRANCH : CSE	DATE OF COMMENCEMENT : 27 th Jan. 2016
SUBJECT : Computer Graphics and Visualization	DATE OF CLOSING : 21 st May 2016
SUBJECT CODE : 10CS65	CLASS STRENGTH : 68
NO OF HRS/WK : 5	TOTAL HRS : 60

Session No	Chapter no (No of hrs planned 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	27/1/16	Overview of the unit-1	Chalk & Talk		
2	2/1	30/1/16	Introduction, Graphics system	„		
3	3/1	01/2/16	Types of images, Imaging Systems ,	„		
4	4/1	01/2/16	Synthetic camera model, Display Processor	„		
5	5/1	02/2/16	Display Processor, Pipeline Architecture Graphics Pipeline	„		
6	6/1	03/2/16	Programmable Interface, Performance characteristics, Applications of graphics	„		
7	7/1	08/2/16	The Sierpinski Gasket, How to program two dimensional applications	„		
8	1/2	09/2/16	Unit8: OpenGL API functions	„		
9	2/2	09/2/16	Primitives and Attributes	„		
10	3/2	10/2/16	Approximating a sphere	„		
11	4/2	11/2/16	Color Concept, Viewing and Control functions	„		
12	5/2	15/2/16	Gasket programming, Three dimensional gasket	„		

			using points and polygon,			
13	6/2	16/2/16	Hidden surface removal,	”		
14	7/2	16/2/16	Implicit functions	”		
15	1/3	17/2/16	Unit 3: Input and Interaction: Introduction, Types of input devices	”		
16	2/3	18/2/16	Client server architecture, Display lists and its modeling	”		
17	3/3	24/2/16	Programming event driven inputs and concept of picking,	”		
18	4/3	25/2/16	Menus and picking,	”		
19	5/3	25/2/16	CAD Program,	”		
20	6/3	26/2/16	Building and animating interactive models	”		
21	7/3	29/3/16	Design of interactive programs,	”		
22	8/3	3/3/16	Logical operations	”		
23	1/4	4/3/16	Unit 4: Geometric Objects and Transformations-I	”		
24	2/4	4/3/16	Scalars, points, and vectors	”		
25	3/4	5/3/16	Three-dimensional primitives and Coordinate systems	”		
26	4/4	8/3/16	Coordinate systems and frames,	”	Assignment 1	
27	5/4	11/3/16	Frames in OpenGL,	”		
28	6/4	17/3/16	Modeling a colored cube;	”		
29	7/4	17/3/16	Affine transformations, Rotation	”		
30	8/4	18/3/16	Translation and Scaling	”		
31	1/5	19/3/16	Unit 5: Geometric Objects and Transformations-II	”		
32	2/5	23/3/16	Transformations in homogeneous coordinates	”		
33	3/5	24/3/16	Concatenation of transformations	”		
34	4/5	24/3/16	OpenGL transformation matrices	”		
35	5/5	28/3/16	Interfaces to three-dimensional applications, Quaternion's	”		

36	1/6	29/3/16	Unit 6: Viewing, Introduction and types of viewing	”		
37	2/6	1/4/16	Positioning of camera and simple projections,	”		
38	3/6	2/4/16	Projections in OpenGL and Hidden surface removal	”		
39	4/6	2/4/16	Interactive menu displays	”		
40	5/6	4/4/16	Parallel-projection matrices	”		
41	5/6	5/4/16	Perspective-projection matrices	”		
42	6/6	11/4/16	Perspective-projection matrices	”		
43	7/6	12/4/16	Projections and shadows	”		
44	1/7	12/4/16	Unit 7: Lighting and Shading, Light sources	”		
45	2/7	13/4/16	The Phong lighting model, Modified Phong model	”		
46	3/7	15/4/16	Computation of vectors	”		
47	4/7	20/4/16	Polygonal shading,	”		
48	5/7	21/4/16	Approximation of a sphere by recursive by sub division,	”	Assignment 2	
49	6/7	21/4/16	Light sources in OpenGL, Specification of materials in OpenGL	”		
50	8/7	22/4/16	Shading of the sphere model; Global illumination	”		
51	1/8	23/4/16	Unit 8: Implementation, Basic implementation strategies; The major tasks;	”		
52	2/8	30/4/16	Clipping, Line- segment clipping(Cohen-Sutherland clipping; Liang Barsky clipping),	”		
53	3/8	2/5/16	Polygon clipping, Clipping of other primitives	”		
54	4/8	2/5/16	Clipping in three dimensions	”		
55	5/8	3/5/16	Rasterization, Bresenham’s algorithm	”		
56	6/8	4/5/16	Polygon Rasterization,	”		

57	7/8	7/5/16	Hidden-surface removal(object space and image space approaches	,	Assignment 3	
58	8/8	10/5/16	scan line algorithms; Back face removal and Z-buffer algorithm	,		
59	9/8	10/5/16	Scan conversion with Z-buffer and Depth sort painter algorithm	,		
60	10/8	11/5/16	Antialiasing; Display considerations.			

Syllabus for Internal Assessment Tests (IAT) *

Sessional #	Syllabus
T1	Class # 01 - 27
T2	Class # 28 – 51
T3	

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

Literature:

Book Type	Code	Author & Title	Publication information	
			Edition // Publisher	ISBN #
Text Book	TB1	Edward Angel: Interactive Computer Graphics A Top-Down Approach with OpenGL	5th Edition, Pearson Education, 2008. (Chapters 1 to 7).	978-81-317-2530-6
Reference	RB1	Donald Hearn and Pauline Baker: Computer Graphics- OpenGL Version	3rd Edition, Pearson Education, 2004.	0130153907
Reference	RB2	F.S. Hill Jr.: Computer Graphics Using OpenGL	3rd Edition, PHI, 2009.	8120338294
Reference	RB3	D Foley, Andries Van Dam, Steven K Feiner, John F Hughes, Computer Graphics	Pearson Education 1997	0201848406



Lesson Plan

Department of Information Science and Engineering

SEMESTER : VI	NAME OF THE FACULTY : Dr.B.Loganayagi
DEPT : ISE	DATE OF COMMENCEMENT:27.01.2016
SUBJECT : COMPUTER NETWORKS II	DATE OF CLOSING : 11.05.2016
SUBJECT CODE : 10CS64	CLASS STRENGTH : 50
NO OF HRS/WK: 6	TOTAL HRS :69

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	27/01/16	Packet Switching Networks - 1: Introduction about computer networks	PPT, Board, chalk, duster		
2	2/1	28/01/16	Network services and internal network operation	"		
3	3/1	29/01/16	Packet network topology	"		
4	4/1	30/01/16	Routing in Packet Networks – Routing Algorithm classification, routing tables, hierarchical routing	"		
5	5/1	02/02/16	Specialized Routing	"		
6	6/1	02/02/16	Shortest path routing : Bellman-Ford algorithm	"	Assignment- I	
7	7/1	03/02/16	Shortest path routing : Dijkstra's Algorithm	"		
8	1/2	04/02/16	Packet Switching Networks – 2: Shortest path routing : Source vs Hop-by-hop Routing	PPT, Board, chalk, duster		
9	2/2	05/02/16	Shortest path routing : Link state Routing vs Distance Vector Routing	"		
10	3/2	08/02/16	Traffic management at the Packet	"		

			level : FIFO and Priority Queues, Fair Queuing			
11	4/2	10/02/16	Traffic management at the Packet level : Weighted Fair Queuing, Random Early Detection	''		
12	5/2	10/02/16	Traffic management at Flow level: Open-Loop Control	''		
13	6/2	11/02/16	Traffic management at Flow level: Closed-Loop Control	''		
14	7/2	12/02/16	Traffic management at flow aggregate level.	''		
15	1/3	13/02/16	TCP/IP-1: TCP/IP architecture, The Internet Protocol, IP Packet	PPT, Board, chalk, duster		
16	2/3	15/02/16	IP Addressing, Subnet Addressing, IP Routing	''		
17	3/3	17/02/16	CIDR, Address Resolution , Reverse Address Resolution	''		
18	4/3	17/02/16	Fragmentation and Reassembly , ICMP	''		
19	5/3	23/02/16	IPv6 : Header Format, Network Addressing	''		
20	6/3	24/02/16	IPv6: Extension Headers, Migration from IPv4 to IPv6	''		
21	7/3	26/02/16	User Datagram Protocol (UDP)		Assignment- II	
22	1/4	26/02/16	TCP/IP-2: TCP: Operation and reliable stream service	PPT, Board, chalk, duster		
23	2/4	29/02/16	TCP Protocol	''		
24	3/4	01/03/16	TCP Congestion Control	''		
25	4/4	02/03/16	Internet Routing Protocols – Routing Information Protocol (RIP), Open Shortest Path First (OSPF)	''		
26	5/4	03/03/16	Internet Routing Protocols –Border Gateway Protocol (BGP)	''		
27	6/4	05/03/16	Multicast Routing –Reverse-Path Broadcasting, Internet Group Management Protocol	''		
28	7/4	05/03/16	Multicast Routing – Reverse-Path Multicasting, Distance Vector Multicast Routing Protocol	''		

29	8/4	08/03/16	DHCP, NAT and Mobile IP	"		
30	1/5	09/03/16	Applications: Application layer overview, Domain Name System (DNS)	PPT, Board, chalk, duster		
31	2/5	10/03/16	Remote Login Protocols, E-mail, File Transfer and FTP, World Wide Web and HTTP	"		
32	3/5	11/03/16	Network management : Elements of network management and	"		
33	4/5	18/03/16	Structure of Management Information(SMI), MIB and SNMP	"		
34	5/5	19/03/16	Network Security: Overview of network security, Overview of security methods	"		
35	6/5	21/03/16	Secret-key encryption protocols	"		
36	7/5	22/03/16	Public-key encryption protocols	"		
37	8/5	23/03/16	Authentication, Authentication and digital signature and Firewalls.	"	Assignment -III	
38	1/6	24/03/16	QoS, VPNs, Tunneling, Overlay Networks: Overview of QoS,	PPT, Board, chalk, duster		
39	2/6	28/03/16	Integrated Services QoS	"		
40	3/6	29/03/16	Integrated Services QoS contd..	"		
41	4/6	30/03/16	Differentiated services QoS	"		
42	5/6	31/03/16	Virtual Private Networks	"		
43	6/6	01/04/16	Multiprotocol Label Switching (MPLS)	"		
44	7/6	04/04/16	Overlay networks	"		
45	1/7	04/04/16	Multimedia Networking: Overview of data compression, Digital voice and compression	PPT, Board, chalk, duster		
46	2/7	05/04/16	JPEG	"		
47	3/7	06/04/16	MPEG	"		

48	4/7	07/04/16	Limits of compression with loss	"		
49	5/7	11/04/16	Compression methods without loss	"		
50	6/7	13/04/16	Overview of IP Telephony, VoIP signaling protocols	"		
51	7/7	13/04/16	Real-Time Media Transport Protocols	"		
52	8/7	15/04/16	Stream control Transmission Protocol (SCTP)	"		
53	1/8	16/04/16	Mobile AdHoc Networks and Wireless Sensor Networks: Overview of Wireless Ad-Hoc networks	PPT, Board, chalk, duster		
54	2/8	18/04/16	Routing in AdHOc Networks	"		
55	3/8	20/04/16	Routing protocols for AdHoc networks	"		
56	4/8	22/04/16	Security of AdHoc networks,	"	Assignm ent -IV	
57	5/8	22/04/16	Sensor Networks and protocol structures	"		
58	6/8	23/04/16	Communication Energy model,	"		
59	7/8	28/04/16	Clustering protocols	"		
60	8/8	29/04/16	Routing protocols	"		
61	9/8	30/04/16	ZigBee technology and 802.15.4.	"		
62		03/05/16	Review -Unit 1	"		
63		03/05/16	Review -Unit 2	"		
64		04/05/16	Review -Unit 3	"		
65		05/05/16	Review -Unit 4	"		
66		06/05/16	Review -Unit 5	"		
67		07/05/16	Review -Unit 6	"		
68		11/05/16	Review -Unit 7	"		
69		11/05/16	Review -Unit 8	"		

Syllabus for Internal Assessment Test

Internal Assessment Test	Syllabus
T1	Class # 01 - 29
T2	Class # 30- 58

Literature

Book Type	Code	Author & Title	Publication Info	
			Edition & Publisher	ISBN #
Text Book	TB1	Communication Networks – Fundamental Concepts & key architectures, Alberto Leon Garcia & Indra Widjaja (7 - excluding 7.6, 8)	2nd Edition, Tata McGraw-Hill, India	0-07-059501-1
Text Book	TB2	Computer & Communication Networks, Nadir F Mir, (9, 10 excluding 10.7, 12.1 to 12.3, 16, 17.1 to 17.6, 18.1 to 18.3, 18.5, 19, 20)	Pearson Education, India	978-81-317-1543-7
Reference	RB1	Behrouz A. Forouzan: Data Communications and Networking.	4 th Edition, Tata McGraw-Hill, 2006.	ISBN-13:978-0-07-063414-5
Reference	RB2	William Stallings: Data and Computer Communication.	8th Edition, Pearson Education, 2007	
Reference	RB3	Larry L Peterson and Bruce S Davie: Computer Networks – A Systems Approach.	4th Edition, Elsevier, 2007.	978-93-80501-93-2
Reference	RB4	Wayne Tomasi: Introduction to Data Communications and Networking	Pearson Education, 2005.	

Signature of faculty

Signature of HOD

Signature of Principal