

SEMESTER : VI A
 BRANCH : CSE
 SUBJECT : Unix System Programming
 SUBJECT CODE : 10CS62
 NO OF HRS/WK : 5

NAME OF THE FACULTY : Kiran Babu T.S
 DATE OF COMMENCEMENT : 27/01/2016
 DATE OF CLOSING : 21/05/2016
 CLASS STRENGTH : 69
 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
1	1/1	27/01/2016	Prerequisites for Unix system programming (C++, Shell commands)	Chalk & Talk		
2	2/1	28/1/2016	UNIT – 1 Introduction: UNIX AND ANSI STANDARDS: The ANSI C Standard, The ANSI/ ISO C++ Standards	”		
3	3/1	30/1/2016	Difference between ANSI C and C++, The POSIX Standards	”	Assignm ent- I	
4	4/1	1/2/2016	The POSIX.1/FIPS Standard, The X/ Open Standards. UNIX and POSIX APIs	”		
5	5/1	2/2/2016	The UNIX and POSIX Development Environment,	”		
6	6/1	3/2/2016	API Common characteristics,	”		
7	7/1	4/2/2016	Revision	“		
8	1/2	8/2/2016	UNIT – 2 UNIX Files: File Types	”		
9	2/2	9/2/2016	The UNIX and POSIX File System, The UNIX and POSIX file attributes,	”		
10	3/2	10/2/2016	Inodes in UNIX System V, Application Program interface to files	”		
11	4/2	11/2/2016	Inodes in UNIX System V	”	Assignm ent -II	
12	5/2	12/2/2016	Application Program interface to files UNIX , Inodes in UNIX System V	”		
13	6/2	15/2/2016	Application Program interface to files Hard and Symbolic Links,	”		
14	7/2	16/2/2016	Revision	”		
15	1/3	17/2/2016	UNIT – 3 UNIX File APIs: General File APIs,	“		
16	2/3	18/2/2016	General File APIs,	”		

17	3/3	22/2/2016	General File APIs, File and Record locking	”		
18	4/3	24/2/2016	Directory file APIs, Device file API, FIFO file APIs,	”	Assignment –III	
19	5/3	25/2/2016	Symbolic Link File APIs	”		
20	6/3	26/2/2016	General File class,	”		
21	7/3	29/2/2016	Dirfile class for directory files	”		
22	8/3	1/3/2016	FIFO file class, ,	”		
23	9/3	3/3/2016	Symbolic Link file class,	“		
24	10/3	4/3/2016	Device file class	”		
25	11/3	5/3/2016	File listing program ,	”		
26	12/3	8/3/2016	Revision	”		
27	1/5	9/3/2016	UNIT - 5 Process Control: Introduction, Process identifiers, fork, vfork,	”		
28	2/5	11/3/2016	exit, wait, waitpid, wait3, wait4 functions	”		
29	3/5	17/3/2016	Race conditions, exec functions, , Changing User IDs and group IDs,	”		
30	4/5	18/3/2016	Interpreter files, System function, Process accounting,	”		
31	5/5	19/3/2016	User identification, Process times, I/O Redirection. Process Relationships: Introduction	”	Assignment –IV	
32	6/5	21/3/2016	Terminal Logins Network Logins, Process groups, Sessions, Controlling Terminal	“		
33	7/5	23/3/2016	tcgetpgrp and tcsetpgrp functions, job control, Shell execution of programs, Orphaned process groups, Revision	”		
34	1/6	24/3/2016	UNIT - 6 Signals and Daemon Processes: Signals: The UNIX Kernel support for signals,	”		
35	2/6	28/3/2016	signal, Signal Mask	”		
36	3/6	29/3/2016	sigaction, The SIGCHLD signal	”		
37	4/6	30/3/2016	the waitpid function, The setjmp and setlongjmp functions,	”	Assignment -V	
38	5/6	1/4/2016	Kill, alarm, interval timers, POSIX.lb timers.	”		

39	6/6	2/4/2016	Daemon Processes : Introduction, Daemon characteristics, coding Rules	“		
40	7/6	4/4/2016	Error Logging, client-server model, Revision	”		
41	1/4	5/4/2016	UNIT - 4 UNIX Processes: The Environment of UNIX process- Introduction,	”		
42	2/4	6/4/2016	main function, Process Termination	”		
43	3/4	11/4/2016	Command-line Arguments, Environment list,	”		
44	4/4	12/4/2016	Memory layout of a C program, Shared Libraries, Memory allocation	”	Assignm ent -VI	
45	5/4	13/4/2016	Environment variables, setjmp and longjmp functions	”		
46	6/4	15/4/2016	getrlimit, setrlimit functions	”		
47	7/4	16/4/2016	Revision	“		
48	1/7	20/4/2016	UNIT - 7 Interprocess Communication 1: Overview of IPC	”		
49	2/7	21/4/2016	Methods, pipes	”		
50	3/7	22/4/2016	popen, pclose functions	”		
51	4/7	23/4/2016	Coprocessors,	”	Assignm ent -VII	
52	5/7	28/4/2016	FIFOs	”		
53	6/7	30/4/2016	System V IPC, Message queues	”		
54	7/7	2/5/2016	Semaphores, Revision	”		
55	1/8	4/5/2016	UNIT – 8 Interprocess Communication 2: Shared Memory,	“		
56	2/8	5/5/2016	Client-Server Properties	”		
57	3/8	7/5/2016	Stream Pipes Passing File Descriptors,	”	Assignm ent -VIII	
58	4/8	10/5/2016	An Open Server-Version 1	”		
59	5/8	11/5/2016	An Open Server-Version 1	”		
60	6/8	11/5/2016	Client-Server Connection Functions	”		

Syllabus for Internal Assessment Tests (IAT) *

Sessional #	Syllabus
T1	Class # 01 - 26
T2	Class # 27- 47
T3	

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

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

NAME OF THE FACULTY : Kiran Babu T.S
DATE OF COMMENCEMENT : 27/01/2016
DATE OF CLOSING : 21/05/2016
CLASS STRENGTH : 65
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	Prerequisites for Unix system programming (C++, Shell commands)	Chalk & Talk		
2	2/1	28/1/2016	UNIT – 1 Introduction: UNIX AND ANSI STANDARDS: The ANSI C Standard, The ANSI/ ISO C++ Standards	”		
3	3/1	30/1/2016	Difference between ANSI C and C++, The POSIX Standards	”	Assignment- I	
4	4/1	1/2/2016	The POSIX.1/FIPS Standard, The X/ Open Standards. UNIX and POSIX APIs	”		
5	5/1	3/2/2016	The UNIX and POSIX Development Environment,	”		
6	6/1	4/2/2016	API Common characteristics,	”		
7	7/1	5/2/2016	Revision	”		
8	1/2	8/2/2016	UNIT – 2 UNIX Files: File Types	”		
9	2/2	9/2/2016	The UNIX and POSIX File System, The UNIX and POSIX file attributes,	”		
10	3/2	11/2/2016	Inodes in UNIX System V, Application Program interface to	”		

			files			
11	4/2	12/2/2016	Inodes in UNIX System V	„	Assignment -II	
12	5/2	13/2/2016	Application Program interface to files UNIX , Inodes in UNIX System V	„		
13	6/2	15/2/2016	Application Program interface to files Hard and Symbolic Links,	„		
14	7/2	16/2/2016	Revision	„		
15	1/3	18/2/2016	UNIT – 3 UNIX File APIs: General File APIs,	“		
16	2/3	22/2/2016	General File APIs,	„		
17	3/3	23/2/2016	General File APIs, File and Record locking	”		
18	4/3	24/2/2016	Directory file APIs, Device file API, FIFO file APIs,	„	Assignment –III	
19	5/3	25/2/2016	Symbolic Link File APIs	”		
20	6/3	29/2/2016	General File class,	„		
21	7/3	1/3/2016	Dirfile class for directory files	„		
22	8/3	2/3/2016	FIFO file class, ,	”		
23	9/3	3/3/2016	Symbolic Link file class,	“		
24	10/3	4/3/2016	Device file class	”		
25	11/3	8/3/2016	File listing program ,	”		
26	12/3	9/3/2016	Revision	„		
27	1/5	10/3/2016	UNIT - 5 Process Control: Introduction, Process identifiers, fork, vfork,	„		
28	2/5	17/3/2016	exit, wait, waitpid, wait3, wait4 functions	„		
29	3/5	19/3/2016	Race conditions, exec functions, , Changing User IDs and group IDs,	„		
30	4/5	21/3/2016	Interpreter files, System function, Process accounting,	„		
31	5/5	22/3/2016	User identification, Process times, I/O Redirection. Process Relationships: Introduction	„	Assignment –IV	
32	6/5	23/3/2016	Terminal Logins Network Logins, Process groups, Sessions, Controlling Terminal	“		

33	7/5	24/3/2016	tcsetpgrp and tcsetpgrp functions, job control, Shell execution of programs, Orphaned process groups, Revision	”		
34	1/6	29/3/2016	UNIT - 6 Signals and Daemon Processes: Signals: The UNIX Kernel support for signals,	”		
35	2/6	30/3/2016	signal, Signal Mask	”		
36	3/6	31/3/2016	sigaction, The SIGCHLD signal	”		
37	4/6	1/4/2016	the waitpid function, The setjmp and setlongjmp functions,	”	Assignment -V	
38	5/6	2/4/2016	Kill, alarm, interval timers, POSIX.lb timers.	”		
39	6/6	5/4/2016	Daemon Processes : Introduction, Daemon characteristics, coding Rules	”		
40	7/6	6/4/2016	Error Logging, client-server model, Revision	”		
41	1/4	7/4/2016	UNIT - 4 UNIX Processes: The Environment of UNIX process-Introduction,	”		
42	2/4	11/4/2016	main function, Process Termination	”		
43	3/4	12/4/2016	Command-line Arguments, Environment list,	”		
44	4/4	15/4/2016	Memory layout of a C program, Shared Libraries, Memory allocation	”	Assignment -VI	
45	5/4	16/4/2016	Environment variables, setjmp and longjmp functions	”		
46	6/4	18/4/2016	getrlimit, setrlimit functions	”		
47	7/4	20/4/2016	Revision	”		
48	1/7	21/4/2016	UNIT - 7 Interprocess Communication 1: Overview of IPC	”		
49	2/7	23/4/2016	Methods, pipes	”		
50	3/7	28/4/2016	popen, pclose functions	”		
51	4/7	29/4/2016	Coprocessors,	”	Assignment -VII	
52	5/7	30/4/2016	FIFOs	”		
53	6/7	2/5/2016	System V IPC, Message queues	”		

54	7/7	4/5/2016	Semaphores, Revision	”		
55	1/8	5/5/2016	UNIT – 8 Interprocess Communication 2: Shared Memory,	“		
56	2/8	6/5/2016	Client-Server Properties	”		
57	3/8	7/5/2016	Stream Pipes Passing File Descriptors,	”	Assignment -VIII	
58	4/8	7/5/2016	An Open Server-Version 1	”		
59	5/8	10/5/2016	An Open Server-Version 1	”		
60	6/8	10/5/2016	Client-Server Connection Functions	”		

Syllabus for Internal Assessment Tests (IAT) *

Sessional #	Syllabus
T1	Class # 01 - 26
T2	Class # 27- 47
T3	

*: 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

SEMESTER :VIA &B Section
BRANCH : CSE
SUBJECT : CD
SUBJECT CODE : 10CS63
NO OF HRS/WK : 6

NAME OF THE FACULTY : Maya Krishnan
DATE OF COMMENCEMENT : 27.01.2016
DATE OF CLOSING : 21.05.2016
CLASS STRENGTH : 68
TOTAL HRS : 74

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	27/1/2016	Unit-1-INTRODUCTION Language processors, The structure of a Compiler	Board, chalk, duster		
2	2/1	28/1/2016	The evolution of programming languages; The science of building a Compiler;	„		
3	3/1	29/1/2016	Applications of compiler technology	„		
4	4/1	30/1/2016	Lexical analysis: The Role of Lexical Analyzer;;	„		
5	5/1	1/2/2016	Input Buffering;	„		
6	6/1	2/2/2016	Recognition of Tokens.	„	Assignm ent- I	
7	7/1	3/2/2016	Specifications of Tokens			
8	8/1	4/2/2016	Programming language basics.			
9	1/2	5/2/2016	Unit -2 Syntax Analysis – 1: Introduction.	„		
10	2/2	8/2/2016	Context-free Grammars, Examples	Board, chalk, duster		
11	3/2	9/2/2016	Writing a Grammar	„		
12	4/2	10/2/2016	LMD,RMD, Parse Trees	„		
13	5/2	11/2/2016	Ambiguity. Example grammar Solution to ambiguity	„		
14	6/2	12/2/2016	Top down parsing-Introduction and types	„		
15	7/2	13/2/2016	Eliminating left recursion from a CFG	„	Assignm ent -II	
16	8/2	15/2/2016	Examples on Left recursion			
17	9/2	16/2/2016	Examples on Left recursion			

18	10/2	17/2/2016	Bottom-up Parsing- Introduction and types			
19	1/3	18/2/2016	Unit –3 Syntax Analysis – 2 Top down parsing .Basic working method. Different types	„		
20	2/3	22/2/2016	Recursive descent parsers, Working method			
21	3/3	23/2/3016	Examples for Recursive descent parsing techniques.			
22	4/3	24/2/2016	Calculation of FIRST and FOLLOW set with examples.			
23	5/3	25/2/2016	Examples for FIRST and FOLLOW calculation	„		
24	6/3	26/2/2016	Examples continued	„		
25	7/3	29/2/2016	Examples continued on first and follow			
26	7/3	1/3/2016	LL(1) parsers working method.		Assignm ent –III	
27	8/3	2/3/2016	Generation of LL(1) parsing tables	„		
28	9/3	3/3/2016	Example of LL(1) parsing	„		
29	10/3	4/3/2016	Examples continued parsing	Projector ppt		
30	11/3	5/3/2016	Examples continued			
31	12/3	8/3/2016	Examples continued			
32	1/4	9/3/2016	Unit –4 Syntax Analysis – 3 Bottom up parsing method and classifications	Board, chalk, duster		
33	2/4	10/3/2016	Shift reduce parsing method with examples ,Parsing conflicts.	„		
34	3/4	11/3/2016	Example continues	„		
35	4/4	17/3/2016	LR parsers introduction			

36	5/4	18/3/2016	Simple LR, Working method with examples. Calculation of LR(0) items			
37	7/4	19/3/2016	LR parsing algorithm and parsing table construction .	„	Assignm nt –IV	
38	8/4	21/3/2016	Examples based on SLR	„		
39	9/4	22/3/2016	More powerful LR parsers CLR	„		
40	10/4	23/3/2016	LALR	„		
41	11/4	24/3/2016	Examples for LALR and CLR	„		
42	12/4	28/3/2016	Using ambiguous grammars; Parser Generators.	“		
43	1/5	29/3/2016	Unit –5 Syntax-Directed Translation: Syntax-directed definitions.	Projector ppt		
44	2/5	30/3/2016	Generation of annotated parse tree with examples			
45	3/5	31/3/2016	Evaluation orders for SDDs- Dependency graphs S- attributed and L-Attributed definitions			
46	4/5	1/4/2016	Syntax directed Translation			
47	5/5	2/4/2016	Applications of syntax- directed translation	Projector ppt		
48	6/5	4/4/2016	Construction of syntax tree with example	Board, chalk, duster		
49	8/5	5/4/2016	Syntax-directed translation schemes.	„		
50	9/5	6/4/2016	Examples on annotated parse trees	„		
51	1/6	7/4/2016	Unit –6 Intermediate Code Generation:.	„		
52	2/6	11/4/2016	Variants of syntax trees	„		

53	3/6	12/4/2016	Three-address code;	Projector ppt		
56	4/6	13/4/2016	Quadruples, SSA	Projector ppt		
57	5/6	15/4/2016	Translation of expressions		Assignment -V	
58	6/6	16/4/2016	Control flow	Board, chalk, duster		
59	7/6	18/4/2016	Back patching;	Projector ppt		
60	8/6	20/4/2016	Switch statements; Procedure calls			
61	1/7	21/4/2016	Unit – 7 Run-Time Environments –Introduction, Storage Organization;	Board, chalk, duster,		
62	2/7	22/4/2016	Stack allocation of space :Activation trees, Activation records	„		
63	3/7	23/4/2016	Access to non-local data on the stack;	„		
64	4/7	28/4/2016	Heap management;	„		
65	5/7	29/4/2016	Introduction to garbage collection	„		
66	6/7	30/4/2016	Reference counting garbage collectors, Symbol Table	„		
67	1/8	2/5/2016	Unit-8 CODE GENERATION : Issues In The Design Of Code Generator			
68	2/8	3/5/2016	The Target Language; Addresses In The Target Code;			
69	3/8	4/5/2016	Basic Blocks with With examples	„		
70	4/8	5/5/2016	Optimization Of Basic Blocks	„		
71	5/8	6/5/2016	Flow Graphs with Examples	Projector ppt,,		

72	6/8	7/5/2016	A Simple Code Generator .	Board, chalk, duster		
73	7/8	10/5/2016	Code Generator			
74	8/8	11/5/2016	Discussion on previous year Question papers			

IAT #	Syllabus
IAT-1	Class # 01 – 25
IAT-2	Class # 26 – 50
IAT-3	Class # 51 – 73

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

Book Type	Code	Author & Title	Publication information	
			Edition // Publisher	ISBN #
Text Book	TB1	Alfred V Aho, Monica S.Lam, Ravi Sethi, Jeffrey D Ullman: Compilers- Principles, Techniques and Tools,	2nd Edition, Pearson Education, 2007.	5697
Ref	TB2	Charles N. Fischer, Richard J. leBlanc, Jr.: Crafting a Compiler with C	Pearson Education, 1991.	
Ref	TB3	Andrew W Apple: Modern Compiler Implementation in C.	Cambridge University Press, 1997. 3	
Ref	TB4	Kenneth C Louden: Compiler Construction Principles & Practice	Cengage Learning, 1997.	

SEMESTER : VI-A
BRANCH : CSE
SUBJECT : CN-2
SUBJECT CODE : 10CS64
NO OF HRS/WK : 5

NAME OF THE FACULTY : Shanthi M B
DATE OF COMMENCEMENT : 27th Jan. 2016
DATE OF CLOSING : 21th May 2016
CLASS STRENGTH : 68
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	Overview of the unit-1	Chalk & Talk		

2	2/1	29/1/16	Network services and internal operations	„	Assignment- I	
3	3/1	29/1/16	Packet network topology	„		
4	4/1	30/1/16	Routing in packet networks-Routing algorithm Classification	„		
5	5/1	2/2/16	Routing tables ,Hierarchical Routing	„		
6	6/1	4/2/16	Flooding ,Deflection Routing	“		
7	7/1	5/2/16	Shortest-path routing concepts	„		
8	8/1	5/2/16	Bellman – Ford algorithm	„		
9	1/2	8/2/16	Dijkstra’s Algorithm	„	Assignment -II	
10	2/2	10/2/16	Link state/Distance vector Routing	„		
11	3/2	12/2/16	Traffic Management at the Packet level	„		
12	4/2	13/2/16	FIFO & Priority Queues	„		
13	5/2	13/2/16	Fair & weighted fair queuing	„		
14	6/2	15/2/16	Traffic Management at the flow level	“		
15	7/2	17/2/16	Traffic Management at the aggregate level	„		
16	1/3	22/2/16	The TCP / IP architecture	„	Assignment –III	
17	2/3	23/2/16	The Internet Protocol	„		
18	3/3	23/2/16	IP & Subnet Addressing	„		
19	4/3	24/2/16	CIDR , RAR , ICMP	„		
20	5/3	26/2/16	IPV6 Format & addressing	„		
21	6/3	1/3/16	Differences B/w IPV4 & IPV6 addressing	„		
22	7/3	2/3/16	User datagram Protocol	“		

23	1/4	2/3/16	Transmission control protocol, TCP SEGMENT, TCP CHECKSUM	„	Assignment –IV	
24	2/4	3/3/16	TCP Connection establishment , data transmission & termination	„		
25	3/4	5/3/16	Internet routing protocols	„		
26	4/4	9/3/16	Open Shortest path first	„		
27	5/4	10/3/16	Border Gateway Protocol, BGP	„		
28	6/4	10/3/16	Multicast routing	„		
29	7/4	11/3/16	IGMP, Reverse Path ,Distance vector Multicasting	„		
30	8/4	18/3/16	DHCP, NAT,MOBILE IP	„		
31	1/5	21/3/16	Application layer Overview, DNS	“	Assignment -V	
32	2/5	22/3/16	Remote login protocol- FTP,WWW&HTTP	„		
33	3/5	22/3/16	Network Management – SNMP,SMI,MIB	„		
34	4/5	23/3/16	Overview of Security Methods	„		
35	5/5	28/3/16	Secrete Key encryption protocols	„		
36	6/5	30/3/16	Public key encryption protocols	„		
37	7/5	31/3/16	Authentication – SHA-1,MD-5	„		
38	8/5	1/4/16	Digital Signature , Firewalls	“		
39	1/6	4/4/16	Overview of QOS,	„	Assignment -VI	
40	2/6	6/4/16	Integrated services QoS	„		
41	3/6	7/4/16	Differentiated services	„		

			QoS			
42	4/6	7/4/16	Virtual Private Networks	„		
43	5/6	11/4/16	Tunneling concepts	„		
44	5/6	13/4/16	Multiprotocol Label switching	„		
45	6/6	16/4/16	Overlay networks	„		
46	1/7	18/4/16	Overview of data compression	“	Assignment - VII	
47	2/7	18/4/16	Digital voice and compression- JPEG,MPEG	„		
48	3/7	20/4/16	Limits of compression with loss	„		
49	4/7	22/4/16	Compression methods without loss	„		
50	5/7	28/4/16	Overview of IP telephony	„		
51	6/7	29/4/16	VoIP signaling protocols	„		
52	8/7	29/4/16	Revocation of Access rights Capability based systems	„		
53	9/7	29/4/16	Real-Time media transport protocols,	„		
54	1/8	30/4/16	Overview of wireless AdHoc N/Ws & Routing	“	Assignment - VIII	
55	2/8	3/5/16	Routing in Adhoc Networks	„		
56	3/8	5/5/16	Routing protocols for security of AdHoc N/Ws	„		
57	4/8	6/5/16	Sensor N/Ws and Protocol Structures.	„		
58	5/8	6/5/16	Communication energy Model	„		
59	6/8	7/5/16	Clustering Protocol	„		
60	7/8	11/5/16	Zigbee technology & IEEE 802.15.4			

Syllabus for Internal Assessment Tests (IAT)*

Sessional #	Syllabus
T1	Class # 01 - 30
T2	Class # 31 – 53
T3	

SEMESTER : VI-B
BRANCH : CSE
SUBJECT : CN-2
SUBJECT CODE : 10CS64
NO OF HRS/WK : 5

NAME OF THE FACULTY : Shanthi M B
DATE OF COMMENCEMENT : 27th Jan. 2016
DATE OF CLOSING : 21th May 2016
CLASS STRENGTH : 65
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	27/1/16	Overview of the unit-1	Chalk & Talk		
2	2/1	28/1/16	Network services and internal operations	„	Assignment- I	
3	3/1	30/1/16	Packet network topology	„		
4	4/1	1/2/16	Routing in packet networks-Routing algorithm Classification	„		
5	5/1	2/2/16	Routing tables ,Hierarchical Routing	„		
6	6/1	3/2/16	Flooding ,Deflection Routing	“		
7	7/1	4/2/16	Shortest-path routing concepts	„		
8	8/1	8/2/16	Bellman – Ford algorithm	„		
9	1/2	9/2/16	Dijkstra’s Algorithm	„	Assignment -II	
10	2/2	10/2/16	Link state/Distance vector Routing	„		

11	3/2	11/2/16	Traffic Management at the Packet level	„		
12	4/2	12/2/16	FIFO & Priority Queues	„		
13	5/2	13/2/16	Fair & weighted fair queuing	„		
14	6/2	15/2/16	Traffic Management at the flow level	“		
15	7/2	16/2/16	Traffic Management at the aggregate level	„		
16	1/3	17/2/16	The TCP / IP architecture	„	Assignment –III	
17	2/3	18/2/16	The Internet Protocol	„		
18	3/3	22/2/16	IP & Subnet Addressing	„		
19	4/3	24/2/16	CIDR , RAR , ICMP	„		
20	5/3	25/2/16	IPV6 Format & addressing	„		
21	6/3	26/2/16	Differences B/w IPV4 & IPV6 addressing	„		
22	7/3	29/2/16	User datagram Protocol	“		
23	1/4	1/3/16	Transmission control protocol, TCP SEGMENT, TCP CHECKSUM	„	Assignment –IV	
24	2/4	3/3/16	TCP Connection establishment , data transmission & termination	„		
25	3/4	4/3/16	Internet routing protocols	„		
26	4/4	5/3/16	Open Shortest path first	„		
27	5/4	8/3/16	Border Gateway Protocol, BGP	„		
28	6/4	9/3/16	Multicast routing	„		
29	7/4	11/3/16	IGMP, Reverse Path ,Distance vector Multicasting	„		
30	8/4	17/3/16	DHCP, NAT,MOBILE IP	„		

31	1/5	18/3/16	Application layer Overview, DNS	“	Assignment -V	
32	2/5	19/3/16	Remote login protocol- FTP,WWW&HTTP	”		
33	3/5	21/3/16	Network Management – SNMP,SMI,MIB	”		
34	4/5	23/3/16	Overview of Security Methods	”		
35	5/5	24/3/16	Secrete Key encryption protocols	”		
36	6/5	28/3/16	Public key encryption protocols	”		
37	7/5	29/3/16	Authentication – SHA-1,MD-5	”		
38	8/5	30/3/16	Digital Signature , Firewalls	“		
39	1/6	1/4/16	Overview of QoS,	”	Assignment -VI	
40	2/6	2/4/16	Integrated services QoS	”		
41	3/6	4/4/16	Differentiated services QoS	”		
42	4/6	5/4/16	Virtual Private Networks	”		
43	5/6	6/4/16	Tunneling concepts	”		
44	5/6	11/4/16	Multiprotocol Label switching	”		
45	6/6	12/4/16	Overlay networks	”		
46	1/7	13/4/16	Overview of data compression	“	Assignment - VII	
47	2/7	15/4/16	Digital voice and compression- JPEG,MPEG	”		
48	3/7	16/4/16	Limits of compression with loss	”		
49	4/7	20/4/16	Compression methods without loss	”		
50	5/7	21/4/16	Overview of IP telephony	”		
51	6/7	23/4/16	VoIP signaling protocols	”		

52	8/7	28/4/16	Revocation of Access rights Capability based systems	„		
53	9/7	30/4/16	Real-Time media transport protocols,	„		
54	1/8	2/5/16	Overview of wireless AdHoc N/Ws & Routing	“	Assignment - VIII	
55	2/8	3/5/16	Routing in Adhoc Networks	„		
56	3/8	4/5/16	Routing protocols for security of AdHoc N/Ws	„		
57	4/8	5/5/16	Sensor N/Ws and Protocol Structures.	„		
58	5/8	7/5/16	Communication energy Model	„		
59	6/8	10/5/16	Clustering Protocol	„		
60	7/8	11/5/16	Zigbee technology & IEEE 802.15.4			

Syllabus for Internal Assessment Tests (IAT) *

Sessional #	Syllabus
T1	Class # 01 - 30
T2	Class # 31 – 53
T3	

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

Literature:

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB1	Communication Networks-Fundamental Concepts and Key Architectures	2 nd Edition, McGraw-Hill, 2011	0-07-119848-2

Text Book	TB2	Nader F. Mir: Computer and Communication Networks	Pearson Education	9788131715437
References	RB1	Behrouz A. Forouzan: Data communications and Networking	4 th Edition, Mc-GrawHill, 2006	0072515848
References	RB2	William Stallings: Data and Computer Communication	8 th Edition, Pearson Education, 2007.	0132433109
References	RB3	Larry L. Peterson and Bruce S Davie: Computer Networks- A Systems Approach	4 th Edition Elsevier 2007	0123705487
References	RB4	Wayne Tomasi: Introduction to Data communications and Networking	Pearson Education, 2007.	978-0-13-128847-8

SEMESTER : VI –A and B
BRANCH : CSE
SUBJECT : OPERATIONS RESEARCH
SUBJECT CODE :10CS661
NO OF HRS/WK : 6

NAME OF THE FACULTY :Asha K N
DATE OF COMMENCEMENT : 21/01/2016
DATE OF CLOSING : 21/05/2016
CLASS STRENGTH : 65
TOTAL HRS : 63

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	27.01.16	Introduction: The origin, nature.	Board, chalk, duster.	Assignm ent-I	
2	2/1	28.01.16	Impact of OR. Defining the problem and gathering data.	Board, chalk, duster.		
3	3/1	29.02.16	Formulating a mathematical model.	„		
4	4/1	30.02.16	Deriving solutions from the model. Testing the model, Preparing to apply the model.	Board, chalk, duster.		
5	5/1	01.02.16	Implementation, Introduction to Linear Programming: Prototype example programming (LP) model	Board, chalk, duster		
6	6/1	02.02.16	Formulation of LPP.	Board, chalk, duster.		
7	7/1	03.02.16	Formulation of LPP.	„		

8	8/1	04.02.16	Graphical Method to solve a LPP.	Projector		
9	9/1	05.02.16	Graphical Method to solve a LPP.	Projector		
10	1/2	08.02.16	Assumptions of LP, Additional examples. Tie breaking in the simplex method.	Projector	Assignment- II	

11	2/2	09.02.16	The essence of the simplex method.	„		
12	3/2	10.02.16	Setting up the simplex method.	„		
13	4/2	11.02.16	Algebra of the simplex method.	Projector		
14	5/2	12.02.16	Simplex method contd., the simplex method in tabular form.	Projector		
15	6/2	13.02.16	Simplex method contd., the simplex method in tabular form.- problems	„		
16	7/2	15.02.16	Simplex method contd., the simplex method in tabular form- problems.	„		
17	8/2	16.02.16	Simplex method contd-problems.	„		
18	1/3	17.02.16	Adapting to other model forms.	Board, chalk, duster	Assignment -III	
19	2/3	18.02.16	Adapting to other model forms.	Board, chalk, duster		
20	3/3	19.02.16	The two phase method.	„		
21	4/3	20.02.16	The two phase method.	„		
22	5/3	22.02.16	Post optimality analysis.	„		
23	6/3	23.02.16	Parametric linear programming, Computer implementation.	„		
24	7/3	24.02.16	Foundation of the simplex method.	„		
25	8/3	25.02.16	Extensions to the augmented form of the problem.	Board, chalk, duster		
26	1/4	26.02.16	The revised simplex method.	„	Assignment -IV	
27	2/4	29.02.16	The revised simplex method.	„		
28	3/4	01.03.16	Simplex method: A fundamental insight.	„		
29	4/4	02.03.16	The essence of duality theory.	„		
30	5/4	03.03.16	Problems on Duality.	„		
31	6/4	04.03.16	Applications of Duality.			
32	7/4	05.03.16	Economic interpretation of duality.	„		
33	8/4	08.03.16	Primal dual relationship, Relationships between complementary basic solutions.	„		
34	9/4	09.03.16	Adapting to other primal forms.	„		
35	1/5	10.03.16	The role of duality in sensitive	„	Assignm	

			analysis, Parametric linear programming contd.		ent -V	
36	2/5	11.03.16	The essence of sensitivity analysis.	„		
37	3/5	17.03.16	Applying sensitivity analysis-Cases contd.	„		
38	4/5	18.03.16	The dual simplex method.	Board, chalk, duster		
39	5/5	19.03.16	The dual simplex method.	„		
40	6/5	21.03.16	Parametric linear programming.	„		
41	7/5	22.03.16	Parametric linear programming.	„		
42	8/5	23.03.16	The upper bound technique.			
43	1/6	24.03.16	The transportation problem, The assignment problem.	„	Assignment -VI	
44	2/6	28.03.16	Using excel to formulate and solve transportation problems.	„		
45	3/6	29.03.16	Using excel to formulate and solve transportation problems.	„		
46	4/6	30.03.16	Streamlined simplex method for the transportation problem.	„		
47	5/6	31.03.16	General procedure for constructing an initial BF solution.	„		
48	6/6	01.04.16	The assignment problem-Examples.	„		
49	7/6	02.04.16	Solution procedures for assignment problems.	„		
50	8/6	04.04.16	Solution procedures for assignment problems.	„		
51	9/6	05.04.16	A special algorithm for the assignment problem.	„		
52	1/7	06.04.16	Game Theory: The formulation of two persons, zero sum games.	„	Assignment -VII	
53	2/7	07.04.16	Solving simple games- a prototype example.	„		
54	3/7	11.04.16	Solving simple games.	Board, chalk, duster		
55	4/7	12.04.16	Games with mixed strategies.	„		
56	5/7	13.04.16	Graphical solution procedure.	„		
57	6/7	15.04.16	Graphical solution procedure.	„		
58	7/7	16.04.16	Solving by linear programming.	„		

59	8/7	18.04.16	Solving by linear programming.	„		
60	9/7	20.04.16	Decision Analysis: A prototype example.	„		
61	10/7	21.04.16	Extensions, Decision making without experimentation.	„		
62	11/7	22.04.16	Decision trees.	„		
63	12/7	23.04.16	Decision trees.	„		
64	1/8	28.04.16	The nature of Metaheuristics, An example.	„	Assignment -VIII	
65	2/8	29.04.16	Travelling Salesman problem.	„		
67	3/8	30.04.16	Travelling Salesman problem.	„		
68	4/8	02.05.16	Tabu Search.	„		
69	5/8	03.05.16	Minimum spanning tree problem with constraints.	„		
70	6/8	04.05.16	Minimum spanning tree problem with constraints.	„		
71	7/8	05.05.16	Simulated Annealing.	„		
72	8/8	06.05.16	The nonlinear programming example.	„		
73	9/8	07.05.16	Genetic Algorithms.	„		
74		10.05.16	Revision.	„		
75		11.05.16	Revision.	„		

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Syllabus for Internal Assessment Tests (IAT)

IAT #	Syllabus
IAT-1	Class # 01 – 34
IAT-2	Class # 35 – 57
IAT-3	Class # 58 - 73

* 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
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