

**DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING**

**Course Instructor** : **Jinu Mohan**  
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**Kokkappilly P.O,**  
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**Vennikulam**  
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**Ernakulam.**  
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**Course name** : **R -606 Algorithm Analysis And Design**  
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**Objective of the course** : **To teach algorithms for solving real problems that arise frequently in computer applications, to teach basic principles and techniques of computational complexity and to introduce the areas of NP-Completeness and parallel algorithms.**

**LECTURE SCHEDULE**

Unit No.	Topics to be covered	No. of hours	Schedule	
			From	To
1	What is an algorithm, Properties of an algorithm, Difference between algorithm,computational procedure and program.	1	29/12/08	29/12/08
	Study of Algorithms, Pseudocode conventions, Recursive Algorithms.	1	30/12/08	30/12/08
	Space and Time Complexity	1	31/12/08	31/12/08
	Asymptotic Notations -'Oh', 'Omega', 'Theta', Common Complexity Functions	2	01/01/09	01/01/09
	Recurrence Relations	1	05/01/09	05/01/09
	Recurrence Trees for Complexity Calculations	1	06/01/09	06/01/09
	Profiling	2	08/01/09	08/01/09
	Deterministic and Non-deterministic algorithms	1	12/01/09	12/01/09
2	Control Abstraction	1	13/1/09	13/1/09
	Finding Maximum and Minimum	1	14/1/09	14/1/09

	Binary Search	2	15/1/09	15/1/09
	Divide and Conquer Matrix Multiplication	1	19/1/09	19/1/09
	Stressen's Matrix Multiplication	1	20/1/09	20/1/09
	Merge Sort	1	21/1/09	21/1/09
	Quick Sort	2	22/1/09	22/1/09
3	Control Abstraction	1	27/01/09	27/01/09
	General Knapsack Problem	1	28/01/09	28/01/09
	Optimal Storage On Tapes	2	29/01/09	29/01/09
	Minimum Cost Spanning Trees	2	05/02/09	05/02/09
	Prim's Algorithm	1	09/02/09	09/02/09
	Kruskal's Algorithm	1	10/02/09	10/02/09
	Job Sequencing with deadlines	3	11/02/09	12/02/09
4	Principle Of Optimality	1	16/2/09	16/2/09
	Multistage Graph	1	17/2/09	17/2/09
	All Pairs Shortest Paths	1	18/2/09	18/2/09
	Travelling Salesman Problem	2	19/02/09	19/02/09
	Lower Bound Theory	1	24/02/09	24/02/09
	Comparison Trees for Searching and Sorting	3	25/02/09	26/02/09
	Oracles and Adversary Arguments	2	05/03/09	05/03/09
	Merging	1	10/03/09	10/03/09
	Insertion and Selection Sort	3	11/03/09	12/03/09
	Selection of 'k' th smallest element	1	16/03/09	16/03/09
5	Control Abstraction	1	17/03/09	17/03/09
	Bounding Functions	1	18/03/09	18/03/09
	N-Queens Problem	2	19/03/09	19/03/09

	Sum of Subsets	1	23/03/09	23/03/09
	Knapsack Problem	1	24/03/09	24/03/09
	FIFO,LIFO,LC Control Abstractions	3	25/03/09	26/03/09
	15- Puzzle	1	30/03/09	30/03/09
	Travelling Salesman Problem	2	31/03/09	01/04/09

### CLASS NOTES PREPARATION PLAN

Unit No.	Topic	Text Book	Page No.
1	What is an algorithm, Properties of an algorithm, Difference between algorithm,Computational procedure and program.	T1	01-02
	Study of algorithms, Pseudocode Conventions, Recursive Algorithms	T1	02/12/
	Space and Time Complexity	T1	14-29
	Asymptotic Notations -'Oh', 'Omega', 'Theta', Common Complexity Functions	T1	29-40
	Recurrence Relations	T1	128-130
	Recurrence Trees for Complexity Calculations	T2	134-141
	Profiling	T1	40-49
	Deterministic and Non-deterministic Algorithms	T1	496-507
2	Control Abstraction	T1	127-130
	Finding Maximum and Minimum	T1	139-144
	Binary Search	T1	131-137
	Divide and Conquer Matrix Multiplication	T2	157-158
	Stressen's Matrix Multiplication	T1	179-181
	Merge Sort	T1	145-152
	Quick Sort	T1	154-164
3	Control Abstraction	T1	197-198
	General Knapsack Problem	T1	198-201

	Optimal Storage On Tapes	T1	229-233
	Minimum Cost Spanning Tree	T1	216-217
	Prim's Algorithm	T1	218-220
	Kruskal's Algoritihm	T1	220-227
	Job Sequencing with deadlines	T1	208-215
4	Principle Of Optimality	T1	253-257
	Multistage Graph	T1	257-265
	All Pairs Shortest Paths	T1	265-269
	Travelling Salesman Problem	T1	298-301
	Lower Bound Theory	T1	457-458
	Comparison Trees for Searching and Sorting	T1	458-464
	Oracles and Adversary Arguments	T1	466-467
	Merging	T1	467-468
	Insertion and Selection Sort	T3	5.2-5.3
	Selection of 'k'th smallest element	T1	471-473
5	Control Abstraction	T1	339-344
	Bounding Functions	T1	345-351
	N-Queens Problem	T1	353-355
	Sum of Subsets	T1	357-359
	Knapsack Problem	T1	368-373
	FIFO,LIFO,LC Control Abstractions	T1	379-392
	15- Puzzle	T1	382-386
	Travelling Salesman Problem	T1	403-411

Name of the Text Books:

T1:Computer Algorithms, Ellis Horowitz, Sartaj Sahni

T2:Computer Algorithms – Introduction to Design and Analysis -

Sara Baase & Allen Van Gelder, Pearson Education.

T3:Data Structures & Analysis of Algorithms – T.Sethukarasi, A.Brunda.

References: Introduction to Algorithms – Thomas H.Cormen, Charles E.Leiserson, Ronald L.Rivest

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**Course name** : **Computer Networks**  
 .....  
**Objective of the course** : This subject focuses on the structure of computer networks,how to establish it and what are the components behind it for effective communication between different computers.It describes about the architecture of network and the layered approach behind it and the basic functionalities performed by each layer.A computer network is a group of interconnected computers.Networks may be classified according to a variety of characteristics.The main objective of networking is resource sharing.The networks have a lot of application areas.

### LECTURE SCHEDULE

Unit No.	Topics to be covered	No. of hours	Schedule	
			From	To
1	ISO/OSI Reference Model	2	30/12/08	31/12/08
1	TCP/IP Reference Model	1	01/01/09	01/01/09
1	Comparison network hardware- Repeaters,Routers,Bridges,gateways,Hub,Cable Modem	3	02/01/09	03/01/09
1	Transmission media	2	06/01/09	08/01/09
1	ISDN system architecture	1	09/01/09	09/01/09
1	Communication satellites-GEO,MEO,LEO	2	09/01/09	14/01/09
1	Satellite vs Fiber	1	15/01/09	15/01/09
2	Datalink layer-design issues	1	16/1/09	16/1/09
2	Error detection and correction	2	16/1/09	17/1/09
2	Elementary datalink protocols	2	21/1/09	22/1/09
2	Sliding window protocols (Assignment topic)	2	23/1/09	23/1/09
2	LAN protocols-Static and dynamic channel allocation in LAN's and WAN's	1	27/1/09	27/1/09

2	Multiple Access protocols-ALOHA,Pure ALOHA,Slotted ALOHA	1	28/1/09	28/1/09
2	CSMA protocol,persistent and non-persistent CSMA,CSMA with collision detection	2	29/1/09	30/1/09
2	IEEE 802.3 Standards for LAN	2	30/1/09	31/1/09
3	Virtual circuits,datagrams	2	05/02/09	06/02/09
3	Routing algorithm-Optimality principle,Flooding	1	07/02/09	07/02/09
3	Flow based routing,Link state routing	1	10/01/09	10/01/09
3	Distance vector routing,Multicasting,Link state multicasting,Distance vector multicasting	2	11/02/09	12/02/09
3	Congestion control algorithms-general principles	1	13/2/09	13/2/09
3	Packet discarding,choke packets	1	13/2/09	13/2/09
3	Congestion prevention policies-Traffic shaping,Leaky bucket algorithm	2	17/2/09	18/2/09
3	Flow specifications,jitter control	1	19/2/09	19/2/09
4	Transport service,Elements of transport protocols	2	20/2/09	21/2/09
4	Internet transfer protocols UDP and TCP	4	24/2/09	27/2/09
4	ATM-principle characteristics	3	05/03/09	07/03/09
5	Domain Name System-DNS name space	1	10/03/09	10/03/09
5	Resource records,Name servers,operation of DNS	2	11/03/09	12/03/09
5	Electronic mail-MIME	2	13/3/09	13/3/09
5	Mobile telephone systems	2	17/3/09	18/3/09
5	Blue tooth-Components,Error correction	1	19/3/09	19/3/09
5	Network topology-Piconet and scatternet	2	20/3/09	21/3/09
5	L2CAP Layers	1	24/3/09	24/3/09
5	Communication in Bluetooth networks	1	25/3/09	25/3/09

### CLASS NOTES PREPARATION PLAN

Unit No.	Topic	Text Book	Page No.
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1	ISO/OSI Reference Model	T1	37-41
1	TCP/IP Reference Model	T1	41-46
1	Comparison of network hardware	T1	14-26
1	Repeater,Router,Bridge,Hub,gateway	T1	326-327
1	Cable Modem	T1	173-175
1	Transmission media	T1	90-107
1	Communication Satellites	T3	109-116
1	Satellite vs Fiber	T1	117
2	Datalink layer design issues	T1	184-192
2	Error detection and correction	T1	192-196
2	Elementary datalink protocols	T1	200-208
2	Sliding window protocols	T1	211-223
2	Static and dynamic channel allocation in LAN's and WAN's	T1	248-249
2	Multiple access protocols-ALOHA-pure ALOHA-Slotted ALOHA	T1	251-255
2	CSMA-Persistent and non-persistent CSMA,CSMA with collision detection	T1	255-258
2	IEEE 802.3 standards for LAN	T1	271-290
3	Virtual circuit,datagrams	T1	343-349
3	Routing algorithm-Optimality principle-Flooding	T1	350-355
3	Rest of the portions in module 3	T2	353-393
4	Transport service-Elements of transport protocols-	T1	481-513
4	Internet transfer protocols UDP and TCP	T1	524-556
4	ATM-principle Characteristics	T2	545-555
5	Domain name system	T1	579-587
5	Electronic mail-MIME	T1	588-602
5	Mobile telephone systems	T1	152-168
5	Bluetooth-components-Error correction-network topology-piconet and scatternet-L2CAP layers-Communication in Bluetooth networks	T1	310-317

Name of the text Books:

T1:Computer Networks(4<sup>th</sup> Edition):Andrew.S.Tanenbaum,Pearson Education Asia/PHI

T2:Computer Networks(4<sup>th</sup> Edition):Andrew.S.Tanenbaum,Pearson Education Asia/PHI

T3:Mobile Computing:Joschen Schieller

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**Staff room location:** Data Center

**Course name** : R -601 PC & PC BASED SYSTEMS

**Objective of the course** : This course will give a broad overview of computer hardware, provide detailed information into the System Board, and provide a detailed look into storage devices. Students will learn to install, upgrade, repair, configure, optimize, troubleshoot, and perform preventative maintenance on basic personal computer hardware and operating systems.

### LECTURE SCHEDULE

Unit No.	Topics to be covered	No. of hours	Schedule	
			From	To
1	Introduction to PC	1	29-12-2008	14-01-2009
	Hardware components	2		
	study of motherboards	2		
	Different types of ports, slots and connectors	3		
	Add-on cards ( <i>Tutorial</i> )	2		
	Power supply SMPS- function & operations	2		
2	Floppy – Floppy Disk Controller	1	15-01-2009	29-01-2009
	Disk Physical specification & operations	1		
	Disk magnetic properties	1		
	Cylinders – Clusters – Hard disks	1		
	Hard disk drive operation	1		
	Magnetic data storage	1		
	Sectors Disk formatting – partitioning - Hard disk features	1		
	Hard disk data transfer modes	1		
	Programmed I/O – Direct memory access	1		
	Ultra DMA – Data addressing ,Standard CHS addressing – Extended CHS addressing – Logical Block Addressing. ( <i>Tutorial</i> )	2		
3	CD ROM, CD Technology, Sector layout, CD-R, CD-RW	2	30-01-2009	13-02-2009

	CDROM, drive specifications- data transfer rate – Access time – Constant linear velocity – constant angular velocity	2		
	Buffers – Interface - DVD DVD	2		
	Magneto optical drives - WORM devices - RAID Holographic storage ( <b>Tutorial</b> )	2		
4	Parity – ECC – Static & Dynamic RAM	1	16-02-2009	27-02-2009
	Memory Addressing – Segmented addressing	2		
	64 KB Limits – 640 KB barrier – Logical, segmented	1		
	virtual, linear and physical memory addresses – Extended and Expanded memory	2		
	Cache memory – Video memory – HMA	1		
	Flat memory model – Advanced memory technologies	2		
5	ISA, PCI, PCMCIA, AGP, USB	2	05-03-2009	18-03-2009
	Hard Disk Interfaces – IDE, EIDE, ATA ( <b>Tutorial</b> )	2		
	Communication ports – Serial – Parallel port	1		
	Keyboard / Mouse Interface connectors	2		
	Trouble Shooting	3	19-03-2009	24-03-2009

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**Course name :** R603 Project Management & Quality Assurance

**Objective of the course :** The objective is to study the fundamentals of Industrial management. It will create awareness about the general concepts in industry and enable them to become successful managers

### LECTURE SCHEDULE

		Schedule		
			From	To
1	Introduction to project management	1	2/01/09	2/01/08
	Capital Expenditure, Phases of Capital Budgeting.	1	3/01/09	3/01/08
	Project Development Cycle, 7-s of project	1	5/01/08	5/01/08

	Management			
	Requirements of Project Manager,Forms of Project Organisation	1	9/01/08	9/01/08
	Tutorial on Various Organisation Structure	1	12/01/08	12/01/08
2	Introduction to Project Analysis,Market Analysis	2	14/01/08	16/01/08
	Technical Analysis	1	19/01/08	19/01/08
	Financial Analysis	1	21/01/08	21/01/08
	Risk Analysis,Social cost Benefit Analysis.	2	23/01/08	28/01/08
3	Control systems,control of major constraints	2	30/01/08	6/02/08
	Project management softwares & information system	2	9/02/08	11/02/08
	Performance of Evaluation-Abandonment analysis	1	13/02/08	16/02/08
	Behaviourial issues in project management	1	18/02/08	20/02/08
4	Quality systems,ISO-9000 series	1	25/02/08	25/02/08
	ISI-Benchmarking	1	27/02/08	27/02/08
	Quality function development(QFD),Total productive maintenance	2	6/03/08	11/03/08
5	Sampling Concepts,sample designs and Schemes	2	11/03/08	16/03/08
	Tutorial	1	13/03/08	13/03/08
	Simple random sampling,stratified random sampling,cluster sample	2	16/03/08	18/03/08
	Sample size destination,estimating population mean	1	20/03/08	20/03/08
	Estimating population proportion	1	23/03/08	23/03/08
	Discussions on previous Question papers	1	25/03/08	

### CLASS NOTES PREPARATION PLAN

Introduction to project management,Capital Expenditure,Phases of Capital Budgeting,Project Development Cycle,7-s of project Management	T1 T3	4-9 222-230
Requirements of Project Manager,Forms of Project Organisation	T1 T3	604-612 230-238
Introduction to Project Analysis,Market Analysis, Technical Analysis, Financial Analysis,Risk Analysis,Social cost Benefit Analysis.	T1 T3	65-135,284-317,403-425 243-261
Control systems,control of major constraints	T2 T1 T3	270-276,286 672,674 262-266
Project management softwares & information system	T3	266,267
Performance of Evaluation-Abandonment analysis,Behaviourial issues in project management	T3	268,269
Quality systems,ISO-9000 series,ISI-Benchmarking	T1	394-398

		T4	315-325
	Quality function development(QFD),Total productive maintenance,ISI 14000	T1	402-403
	Sampling concepts,sample designs and schemes,Simple random sampling,stratified random sampling,cluster sample	T3	199-203
	Sample size estimation,estimating population mean	T3	206,207
	Estimating population proportion	T3	208,209

Name of the text Books:

T1) Projects-Planning,Analysis,Selection,Implementation-Prasanna Chandra

T2) Project Management-Harvey Mayor

T3)Fundamentals of Industrial Management-Kemthose

T4)Total Quality Management-Dale H Besterfield

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**Course name : RT605 NETWORK COMPUTING**

**: TO UNDERSTAND THE BASICS OF LANGUAGES USED IN DEVELOPEMENT OF WEB SITES AND COMPUTER NETWORKS. TO STUDY LANGUAGES LIKE HTML,CSS, JAVASCRIPT AND JAVA. UNDERSTAND BASICS OF HTTP PROTOCOLS**

**Objective of the course**

### LECTURE SCHEDULE

Unit No.	Topics to be covered	No. of hours	Schedule	
			From	To
1	Internet, HTML Documents,	1	29/12/08	29/12/08
1	Basic Tags for Font & Paragraph Formatting	1	30/12/08	30/12/08
1	Lists,	1	31/12/08	31/12/08
1	Tables	1	1/1/09	1/1/09
1	Frames	2	5/1/09	6/1/09
1	<i>Tutorial- Building simple html pages (in lab)</i>	1	8/1/09	8/1/09
1	Image Maps	1	12/1/09	12/1/09
1	Cascading Style Sheets Style Element	2	13/1/09	14/1/09
1	CLASS Attribute, DIV & SPAN Tags	1	15/1/09	15/1/09
2	Dynamic HTML Pages Client side scripting	1	19/1/09	19/1/09
2	Java Script – variables, Arithmetic operations, control statements	1	20/1/09	20/1/09

2	Message boxes, Arrays,	1	21/1/09	21/1/09
2	<i>Tutorial- Familiarization with CSS (in lab)</i>	1	22/1/09	22/1/09
2	Event handling, document object model	2	27/1/09	28/1/09
2	Dynamic updating of pages with JAVA Script	1	29/1/09	29/1/09
2	Embedding ActiveX controls - using the structured graphics – ActiveX Control	1	5/2/09	5/2/09
3	Java programming – Features of Java,Creating & using classes in Java	1	9/2/09	9/2/09
3	Static classes – Inheritance – Final methods	1	10/2/09	10/2/09
3	Interfaces– nested class,	1	11/2/09	11/2/09
3	<i>Tutorial- Doing java programs (in lab)</i>	1	12/2/09	12/2/09
3	Inner classes – Anonymous Inner classes	1	16/2/09	16/2/09
3	Exception handling Creating & using exceptions	1	17/2/09	17/2/09
3	Multithreaded programs and thread synchronization	2	18/2/09	24/2/09
3	<i>Tutorial- Doing java programs (in lab)</i>	1	19/2/09	19/2/09
3	Creating and using packages	1	25/2/09	25/2/09
2	<i>Tutorial- Familiarization Javascript (in lab)</i>	1	26/2/09	26/2/09
3	Creating GUI with AWT and Swing, JDK1.1 event model	3	5/3/09	11/3/09
3	<i>Tutorial- Familiarization with thread (in lab)</i>	1	12/3/09	12/3/09
4	Network Programming Features of Java, creation of applet	1	16/3/09	16/3/09
4	Life cycle of applets	1	17/3/09	17/3/09
4	Security features for applets - Inter applet communication	1	18/3/09	18/3/09
4	<i>Tutorial- Familiarization with java GUI</i>	1	19/3/09	19/3/09
4	TCP/IP Programming with Java	1	23/3/09	23/3/09
4	Iterative & Concurrent servers, Datagrams	1	24/3/09	24/3/09
4	IP multicasting, RMI	1	25/3/09	25/3/09
4	<i>Tutorial- Familiarization with java GUI</i>	1	26/3/09	26/3/09
5	Server side scripting – HTML Forms & CGI	1	30/3/09	30/3/09
5	Basic working of a CGI supported web server	1	31/3/09	31/3/09
5	HTTP Protocol working – HTTP methods, GET,PUT, DELETE, POST, HEAD	1	1/4/09	1/4/09
5	Working of SMTP and POP protocols	1	13/4/09	13/4/09
5	Simple CGI program in C to validate user name & Password. Email:	1	15/4/09	15/4/09

## CLASS NOTES PREPARATION PLAN

Unit No.	Topic	Text Book	Page No.
1	BASICS OF INTERNET	T4	3-21
1	client side, static dynamic, server side, Introduction,	T4	11-12
1	Markup language, structure of HTML file, simple html file <b><u><i><p><font><h> 	T3	1-49
1	lists, <img>	T3	56-69
1	<table><tr><td> and its attributes	T4	97-116
1	<frame>	T4	161-180
1	Body Tag and its Attributes,	T4	37
1	3 types of css, Absolute and relative positioning of elements,	T4	377-425
1	<a>	T3	77-90
2	static, dynamic, languages,	T2	2-38
2	variables, Arithmetic operations, control statements, functions, <input>	T2	41-43
2	message boxes, Arrays,	T4	264-270
2	event handling, document object model	T4	279-292
2	Dynamic updating of pages with JAVA Script	T4	299-350
2	Embedding ActiveX controls - using the structured graphics – ActiveX Control		
3	Java programming –	T1	23-31
	Features of Java,Creating & using classes in Java	T1	23-31
3	Static classes – Inheritance – Final methods	T1	215-236
3	Interfaces	T1	240-244
3	Nested classes – Inner classes – Anonymous Inner classes	T1	247-259
3	Exception handling Creating & using exceptions	T1	192-206
3	Multithreaded programs and thread synchronization	T1	565-590
3	creating and using packages	T1	1205-1209
3	Creating GUI with AWT and Swing,JDK1.1 event model	T1	281-380
4	Network Programming Features of Java,	T1	629-656
4	creation of applet,Life cycle of applets	T1	673-680
4	Security features for applets - Inter applet communication		
4	TCP/IP Programming with Java	T1	645-669
4	Datagrams	T1	665-666
4	Iterative & Concurrent servers,		
4	IP multicasting, RMI		

5	Server side scripting – HTML Forms & CGI, Basic working of a CGI supported web server	T3 T4	685-715 437-442
5	HTTP Protocol working – HTTP methods, GET,PUT, DELETE, POST, HEAD	T4	744-745
5	<b>Working of SMTP and POP protocols (Overview only)</b>		
5	<b>Simple CGI program in C to validate user name &amp; Password. Email:</b>	<b>T4</b>	<b>4</b>

**Name of the text Books:**

T1:Java 2 Awt,Swing,Generics, XML,Sound, Animation, JDBC, Servlets, RMI, Threading, Sockets, Networking and javabeans. Programing 2006Edition, Steven Holzner

T2:JavaScript Don Gosselin

T3: HTML Complete 2<sup>nd</sup> Edition, Bpb.

T4: HTML, DHTML, JAVASCRIPT, PERL, CGI-Ivan Bayross

**Course Instructor :** **DHANYA M RAJAN**

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**Course name :** **RT602 SOFTWARE ENGINEERING**

**: TO UNDERSTAND THE DIFFERENT PHASES OF THE SOFTWARE**

**Objective of the course**

**DEVELOPMENT. TO KNOW WHAT ALL PROCESSES ARE GOING ON IN EACH PHACES AND WHAT ARE THE REQUIREMENTS OF EACH PHASE TO DEVELOP AN EFFECTIVE SOFTWARE.**

**LECTURE SCHEDULE**

Unit No.	Topics to be covered	No. of hours	Schedule	
			From	To
1	Introduction – Software and software Engg.-	1	29-12-08	29-12-09
	Phases in software development	2	31-01-08	01-01-09
	Software development process model	2	03-01-09	05-01-09
	Role of Management in software development	1	06-01-09	06-01-09

	Role of Matrics and measurement	1	07-01-09	07-01-09
	Software requirement specification(SRS)	1	08-01-09	08-01-09
	Problem Analysis - validation	1	13-01-09	13-01-09
2	Cost Estimation – Uncertainties	1	14-01-09	15-01-09
2	models – COCOMO model	1	17-01-09	17-01-09
2	Project scheduling	1	19-01-09	19-01-09
2	average duration estimation	1	22-01-09	22-01-09
2	Project scheduling and milestones	1	24-01-09	24-01-09
2	staffing and personal plan – Rayleigh curve personnel plan – team structure	1	27-01-09	27-01-09
2	software configuration -management plans – quality assurance plans	1	31-01-09	31-01-09
2	verification and validation	1	02-02-09	02-02-09
2	inspections and reviews - project monitoring plans	1	04-02-09	04-02-09
2	time sheets – reviews– cost schedule - milestone graph – risk management	1	06-02-09	06-02-09
3	Design Principles – Problem partitioning and hierarchy	1	11-02-09	11-02-09
3	abstraction – modularity	1	14-02-09	14-02-09
3	module level concepts - coupling - cohesion	1	16-02-09	16-02-09
3	structured design methodology	1	17-03-09	17-03-09
3	verification - matrices.	1	18-03-09	18-03-09
4	Top-down and Bottom-up	1	07-03-09	07-03-09
4	Structured Programming - Information Hiding -	2	09-03-09	10-03-09
4	Programming style - Internal Documentation	1	11-03-09	11-03-09

4	Verification - Code Reading -	1	12-03-09	12-03-09
4	Static Analysis - Symbolic execution - Proving Correctness -	2	13-03-09	16-03-09
4	Code inspections – Unit testing.	2	17-03-09	17-03-09
5	Testing fundamentals - Functional and Structured Testing	2	19-03-09	20-03-09
5	Testing Process -	2	23-03-09	24-03-09
5	Comparison of Verification and Validation Techniques -	1	26-03-09	26-03-09
5	Reliability assessment - Programmer Productivity	1	28-03-09	28-03-09
5	Error removal efficiency.	1	30-03-09	30-03-09

**Course Instructor** : **Lisha Kurian, Reshma Rasheed , Devi Gopal**  
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**Permanent Address** : **Staff room location: Staff room no 5**  
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**Course name** : **System Software Lab**  
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**Objective of the course** : **Deals with different phases of com**

**SYSTEM SOFTWARE LAB SCHEDULE - R6 –A1**

Exp No.	Topics to be covered	No. of hours	Schedule	
			From	To
1	check the matching braces in the given C program	2	01-01-09	06-01-09
2	lexical analysis	2	16-01-09	20-01-09
3	Symbol table.	2	27-01-09	30-01-09
4	Parser for function declaration	2	06-02-09	10-02-09

5	Recursive decent parser	2	13-02-09	17-02-09
6	shift reduce parser	2	20-02-09	24-02-09
7	Macro preprocessor	2	27-02-09	06-03-09
8	Code generation	2	10-03-09	13-03-09

**SYSTEM SOFTWARE LAB SCHEDULE - R6-A2**

Exp No.	Topics to be covered	No. of hours	Schedule	
			From	To
1	check the matching braces in the given C program	2	02-01-09	13-01-09
2	lexical analysis	2	19-01-09	23-01-09
3	Symbol table.	2	29-01-09	05-02-09
4	Parser for function declaration	2	9-02-09	12-02-09
5	Recursive decent parser	2	16-02-09	19-02-09
6	shift reduce parser	2	23-02-09	26-02-09
7	Macro preprocessor	2	05-03-09	09-03-09
8	Code generation	2	12-03-09	16-3-09