MULTIMEDIA & COMPUTER GRAPHICS

L	т	Р		Curri. Ref. No.: CSE503		
4	0	4				
Tot	al Con	tact Hrs.:45	Total Marks: 100	Theory: 100		
The	ory: 6	0		End Exam :70		
Practical: 60				P.A.: 30		
Pre	requis	ite: CSE404 <i>,</i> C	SE407	Practical: 50		
Cre	edit: 6			End Exam.:25		
				P.A. :25		

COURSE CONTENTS:

<u>Theory:</u> Total Periods : 45 Periods : 3 P/W

UNI	T TOPIC/SUB-TOPIC	Total hrs.
1]	Introduction to Computer Graphics	5
1	1.1 Introduction	
1	1.2 Image Processing ans Picture analysis	5
1	1.3 Conceptual frame work for interactive	e graphics
1	1.4 Classification	
2	Hardware	4
2	2.1 Various display devices	
2	2.2 Video controller	
2	2.3 Random - scan display processor	
2	2.4 Image scanners	
2	2.5 Interaction hardware	
3]	Raster Graphics Techniques	8
3	3.1 Interaction handling	
3	3.2 Raster graphics features	
3	3.3 Line drawing algorithms	
3	3.4 Circule drawing algorithms	
-	2 E Scon conversion	

3.5 Scan conversion

	3.6	Polygon filling	
	3.7	Pattern filling	
	3.8	Halftoning	
	3.9	Clipping techniques	
4	Geo	metric Transformation and Viewing	3
	4.1	2D and 3D transformation	
	4.2	Representation and composition	
	4.3	3D viewing	
5	User	r Interfacing	5
	5.1	Interaction handling models	
	5.2	Window management	
	5.3	Input/Output handling	
	5.4	Tool kits	
6	Cur	ves & Surfaces and Solid Modeling	7
	6.1	Polygon merhes	
	6.2	Parametric cubic curves	
		Quadric surfaces, Bezier and B-spline curves	
	6.4	Representing solids : sweep representation, boundary	
	6.5	representation Spatial partitioning	
7		Spatial partitioning bility	5
/		Hidden line and Hidden surfaces	3
	7.2	Floating horizon algorithm	
	7.3	Roberts algorithm, Z-buffer	
	7.4	List priority algorithms	
8		dering	4
0	8.1	Illumination models	-
	8.2	Shadows	
	8.3	Shading	
	8.4	Transparency	
9		DJECT REPORT	10
У	PR (9.1	Introduction and Background of Animation	10
	9.1 9.2	Use of Animation	
	9.2		

	9.3	Types of Animation – Cel Animation, Path Animation 2D	
		& 3D Animation	
	9.4	Role of Computers in Animation	
	9.5	Key Frames and Tweening	
	9.6	Movement Creation – Coordinate system, transformations	
	9.7	Principles of Animations – squash and stretch,	
		anticipations, staging, follow-through and overlapping,	
		slow-in, slow-out, arcs, timing	
	9.8	Animation techniques – onion skinning, motion cycling,	
		masking, flipbook animation sound addition.	
	9.9	3D – Animation – modelling, camera and centre of	
		interest ICOI), movements of Camera and special effects	
10	Com	pression	5
	10.1	Need for Compression	
	10.2	Types of Compression – Lossy and Lossless, intra and	
		inter frame	
	10.3	CODEC	
	10.4	JPEG image coding standard	
11	Appl	lication of Multimedia	4
	11.1	Multimedia Application Development	
		Computer Games	
	11.3	Virtual Reality	
		TOTAL:	60
			50

PRACTICAL

Total Periods : 60 Periods : 4P/W

1. Sound Forge

Sound recording and editing through sound forge XP

- 1.1 The main screen
- 1.2 The data window
- 1.3 Opening an existing file playing a sound file
 1.4 Playing a section of a file
 1.5 Copying data to a new file
 1.6 Saving a file

- 1.7 Simple editing

	1.8	Advanced editing
	1.9	Editing sound formats
	1.10	Applying sound processing functions
		1.11 Recording sound using sound forge.
2	Adol	be Premiere
	2.1	Creating desktop video with Adobe Premiere
	2.2	Creating on Adobe Premiere movie
	2.3	Starting a new project importing clips, assembling the cliping
		construction window, previewing the movie, changing duration of
		a cell, creating a transition, adding other clips and transitions.
	2.4	Applying filters to a clip
	2.5	Changing the time unit in the construction window
	2.6	Using preview command to preview the transition and filter
		effects
	2.7	Adding sound to movie
	2.8	Connecting and capturing source video through broadway cord
		2.9 Editing and compressing the video
3	Adol	be Photoshop
	3.1	Scanning image
	3.2	Creating new images
	3.3	Changing foreground and background colours
	3.4	Creating and using paths
	3.5	Editing and retouching
	3.6	Duplicating images
	3.7	Layers - linking with layers
	3.8	Grouping a images
	3.9	Rubber stamp and pattern stamp tool
	3.10	Painting - paintbrush tool, air-brush tool, pencil tool, eraser tool,
		gradient tools
		3.11 Photoshop filters
4	Auth	orware Attain
	4.1	Introduction - system requirements, installing, general features
	4.2	Knowledge objects - introduction to knowledge objects, choosing
		a knowledge object, adding a knowledge object file, authorware

knowledge objects

- 4.3 Authoring basics icon based authoring what each icon does the toolbar, working with icons on the flow line, authoring step by step, distribution requirements, packaging an AW piece, packaging an AW piece for the web.
- 4.4 Creating interactions components of an interaction, How an interaction works, tracing the flow through an interaction, setting up an interaction step by step.
- 4.5 Directing the flow Decision structure, frameworks, navigation structures -step by step
- 4.6 Transitions, Positioning and motion using transition for special effects, positioning objects using the motion icon, making objects move step by step.

5 Director

- 5.1 Introduction system requirement, installing director
- 5.2 Basic Overview, work area, adding interactivity with lingo, using the score, using markers, selecting and editing frames in the scores using xtras
- 5.3 Sprites creating, selecting and layering sprites positioning, splitting and joining sprites
- 5.3 Working with cast members and casts using the cast window, creating cast members
- 5.4 Behaviours attaching behaviour, creating and modifying behaviour
- 5.5 Colour, Tempo and transitions animation, navigation and user interaction, movies in a window, sound, video and synchronization, distributing movies.

6 Tool book Instructor

- 6.1 Introduction system requirement, installing instructor.
- 6.2 Understanding Instructor concepts planning the project, building an application, using open script.
- 6.3 Exploring the Instructor interface about the Instructor, Visual interface using tools in Instructor.
- 6.4 Using the book specialist working with books and pages, working with Toolbook II catalogues, working with objects, setting object properties, adding buttons, working with text & hot words, working with list boxes and combo boxes, adding graphics, using multimedia, hiding, showing and animating objects, creating a quiz using question objects.

TEXT /REFERENCE BOOKS:

- 1. Multimedia Communication by Keno et al PH
- 2. Principles of Multimedia by Ranjan Parekh, Mc Grew Hill.
- 3. Fundamentals of Computer Graphics & Multimedia by Mukherjee PHI
- 4. Multimedia An Introduction by John Villamil& Louis Molina Prentice Hall
- 5. Multimedia Production Planning & Delivery by John Villamil& Louis Molina – Prentice Hall
- 6. Multimedia Sound & Video by Jose Lozano Prentice Hall
- 7. Multimedia Graphics by John Villamil&Leony Fernandez, Elias – Prentice Hall
- 8. Manuals for Sound Forge, Adobe Premiere, Adobe Photoshop, Authorware Attain, Director, Toolbook Instructor

DATABASE MANAGEMENT SYSTEM

Curri. Ref. No.: CSE410

Theory: 100
End Exam :70
P.A.: 30
Practical: 50
End Exam.:25
P.A. :25

COURSE CONTENTS:

Theory:

Total Periods : 45 Periods : 3 P/W

UNI	T	TOPIC/SUB-TOPIC	TOTAL HRS.
1.0	Int	roduction to Database Management System	5
		Database System environment	
	1.2	File oriented Approach	
	1.3	Database Approach	
	1.4	Users of DBMS	
	1.5	Intended use of DBMS	
	1.6	Benefit of using database approach	
	1.7	Concepts of Client Server Architecture and distribute system	d
2.0	Da	tabase System Concept and Application	5
2.0		Date Models, Schemes and instances	5
		DBMS architecture and Independence	
		Database Languages and Interfaces	
		The database system environment	

2.5 Classification of DBMS

4.0 SQL

3.0 E-R diagram

4.1 Data definition in SQL

3.1 Defining relations, Entity Set

3.2 E-R Model concept with examples

- 4.2 Queries in SQL
- 4.3 Create, Update, Insert statements in SQL
- 4.4 Views in SQL
- 4.5 Specifying additional constraints as assertions
- 4.6 Specifying indexes

5.0 Functional Dependencies and Normalization for Relational Database

- 5.1 Functional dependencies
- 5.2 Normal forms based on primary keys
- 5.3 General definitions of second and third normal forms
- 5.4 BoyeCodd normal form

6.0 Transaction Processing Concepts

- 6.1 Introduction to transaction processing
- 6.2 Transaction and System concept
- 6.3 Desirable properties of transactions
- 6.4 Schedules and recover ability

7.0 Concurrency Control Techniques

7.1 Basic Concepts; Concepts of Locks : live lock, dead lock; Serializability

8.0 Security and Integrity

- 8.1 Security and integrity violation
- 8.2 Authorization
- 8.3 Authorization and Views
- 8.4 Granting of Privileges
- 8.5 Security specification in SQL
- 8.6 Encryption

2

12

4

3

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9.0	Distributed Databases	6
	Principles of distributed database; data fragmentations,	
	transparency, integrity, allocation of fragments, translation	
	of global query to fragment query; concurrency control -	
	elementary ideas	
	-	45

Practical

Total Period : 60 Period : 4 P/W

1. Oracle

- 1.1 Introduction to Oracle
- 1.2 Datatypes and attributes constraints, primary key, unique, foreign key, check, not null

2. Introduction to Structured Query Language (SQL)

- 2.1 Data definition language (DDL) Create, alter, drop table
- 2.2 Data manipulation language (DML) Select, insert, update, delete
- 2.3 Data control language Grant, revoke
- 2.4 Creating and deleting views, index

3. Introduction to PL/SQL

- 3.1 Block structure, variable and types, looping constructs, expression and operators, functions
- 3.2 Cursors variable, cursor fetch, loops
- 3.3 Procedure, functions, triggers
- 3.4 Error handling and exceptions 3.5 Composite datatypes

4. Developer 2000/IDS

- 4.1 Oracle forms Form modules, blocks, items, windows, canvas views, triggers, master detail forms, menu, alert, LOV
- 4.2 Oracle reports report generation with parameters

5. Visual Basic

- 5.1 Windows programming. Creation of forms, menus, etc
- 5.2 Basic Programming Constructs of Visual Basic-Array handling Common controls of Visual Basic-Creation of Label control, command button, textbox, checkbox, option button, frame, list box, combo box, scroll bars, timer, shape, line.
- 5.3 File System Control Dirlist box, dDrivelist box, filelist box, and synchronization of above controls Common Dialog Controls, Connectivity with Databases (with RDBMS like Oracle), Ideas on implementing ODBC Object Orientation in Visual Basic, Creation of Active X Control using Visual Basic.

6. **DBA function :**

- 5.1 Installation of Oracle & D2K
- 5.2 Creation of a database
- 5.3 Routine maintenance of database
- 5.4 Backup & Recovery of database
- 5.5 Concept of inet.ora

TEXT / REFERENCE BOOKS:

- 1. Fundamentals of Database System by Elmasri and Navathe Addison-Wesley
- 2. An Introduction to Database Systems by C.J. Date Addison-Wesley
- 3. Principles of Database Systems by John E. Hopcroft & Jeffrey D. Ullman Galgotia Pub.
- 4. Developing personal oracle7 applications by David Lockman Sams Pub.
- 5. Oracle8 DBA handbook by Kevin Loney TMH

SOFTWARE ENGINEERING

L	т	Р		Curri. Ref. No.: CSE408
3	0	0		
Tot	al Con	tact Hrs.:	Total Marks: 150	Theory: 100
Theory: 45		5		End Term Exam :70
Practical: 0				P.A.: 30
Prerequisite: CSE402				Practical: 0
Cre	edit: 3			End Term Exam:0
				P.A.:0

COURSE CONTENTS:

Theory Total Period : 45 Period : 3 P/W

UN	ΤT	TOPIC/SUB-TOPIC	TOTAL HRS.
1.0	Intr	oduction to Software Engineering	4
	1.1	The evolving role of software	
	1.2	Software crisis-problems and causes	
	1.3	Software engineering paradigms	
	1.4	Classic life cycle	
	1.5	Prototyping	
		Spiral Model	
		Generic view of software engineering	
2.0		ware Requirement Analysis	6
		Requirement analysis fundamentals	
		Structured analysis : Basic notation and its extensi-	on, object
		oriented analysis and data modeling, process modeling	, 5
3.0	Soft	ware Design	5
		Evolution of software design	
		Design fundamentals: Abstraction, refiner modularity, software architecture	nent,
	3.3	Flow oriented design and object-oriented design	

4.0	Quality Assurance	4				
	4.1 Software quality factor					
	4.2 Software quality Assurance (SQA)					
	4.3 SQA activities					
	4.4 Software reliability, errors and faults					
	4.5 Software reliability models					
5.0	Verification and Validation	3				
	5.1 Software testing strategies & techniques					
	5.2 Elementary ideas of black box & white box testing					
6.0	Software Evaluation	2				
7.0	Software Documentation	3				
8.0	Software Project Management	15				
	8.1 Basic concepts of software project management process objectives, scope, estimation, COCOMO model					
	8.2 Project planning					
	8.3 Project scheduling, Gantt chart, pert chart					
	8.4 Managing people, project staffing, group working, working environment					
	8.5 Project monitoring, milestone, methods of project					
	monitoring					
	8.6 Risk analysis, tracking and control, version management					
9.0	Case Tools :	3				
	Rational University Seed Programme (Rational Rose)					
		45				
REFEI	RENCE BOOKS					
	ftware Engineering Beginners Approach – by Pressman – TMH					
	ftware Engineering – by Pankaj Jalote – Narosa Pub. House					
	ndamentals of Software Engg- Carlo Ghezzi, Mehdi Jazayeri, & Dino					
	ndrioli – PHI.					
4. So:	ftware Engineering – by Sommerville – Addison-Wesley					

BUSINESS DATA PROCESSING

LTP304Total Contact Hrs.:Total Marks: 100Theory: 45Practical: 0Prerequisite: CSE404Credit: 4

Curri. Ref. No.: CSE505

Theory: End Term Exam :70 P.A.: 30 Practical: 50 End Term Exam:25 P.A.:25

3

COURSE CONTENTS:

Theory

Total Period : 45 Period : 3 P/W

UNIT			otal Irs.
1	Int	roduction	2
	1.1	Introduction to Information - Time, Relevant, Precision	
2	Inf	ormation Systems And Business Context	3
	2.1	Organisation,	
	2.2	Technology,	
	2.3	Management	
3	Inf	ormation Systems In Management	10
	3.1	Types of information systems - Transaction processing	g

3.1 Types of information systems - Transaction processing system, Management information system, Decision support system, Executive information system, Office information system/knowledge work system

4 Categories Of Information Systems On The Basis Of Processing

- 4.1 Batch processing,
- 4.2 On-line processing,
- 4.3 Real-time processing.

5	 Data And File Concepts 5.1 File structures and data access - Sequential access, Direct access, Indexed sequential access
6	Data Management
	6.1 The requirement - Data redundancy, Maintaining consistency within the data collection.
	6.2 Program-data interdependence, Flexibility in use of data and sharing data.
	6.3 Data management trends.
7	Applications Of Information System 7.1 Inventory management,
	7.2 Sales management,
•	7.3 Personnel management
8	Management Information System
	8.1 MIS services - Routine performance reports, Excepting
	reports, On-demand reports, Predictive reports

3

6

12

6

8.2 Implementing an MIS.

Practical

Total Period : 60 Period : 4 P/W

- 1) Study of the Management Information System in real environment.
- 2) Study & understanding of the business process activities.
- 3) Mapping of domain knowledge to Information system design
- 4) Feasibility study
- 5) Requirement analysis
- 6) Application of Object Oriented Modelling of Business Data Processing
- 7) Use of UML in design of system use case diagram, activity diagram start chart, etc.
- 8) Implementation of USE case diagram in system design and development.

REFERENCE BOOKS:

- 1. Management Information System by S. Sadagopan PHI
- 2. Management Information System by S. Shajahan& R. Priyadarshini New Age International
- 3. Management Information System by R.K. Wadhwa Kanishka Publishers

INTERNETWORKING & WEB TECHNOLOGY

LTP304Total Contact Hrs.:Total Marks: 150Theory: 45Practical: 60Prerequisite: CSE412Credit: 5

Curri. Ref. No.: CSE506

Theory: 100 End Term Exam :70 P.A.: 30 **Practical: 50** End Term Exam: 25 P.A.:25

COURSE CONTENT:

THEORY:

Total Period : 45 Period : 3 P/W

UN	IT	TOPIC/SUB-TOPIC					
1.	Inte	ernet Fundamentals	3				
	1.1	Motivation for internetworking					
1.2		History and scope of internet					
1.3		Internet protocol and standardization					
1.4		Role of ISP & Factors for choosing an ISP					
	1.5	Internet service providers in India					
	1.6	Types of connectivity such as Dial Up, Leased,					
		VSAT etc.					
1.7		Internet server and client modules on various					

operating systems

2. TCP/IP

- 2.1 TCP/IP internet layering model
- 2.2 Reliable stream transport service (TCP)
 - 2.2.1 Need for stream delivery
 - 2.2.2 Properties of reliable delivery service
 - 2.2.3 Providing reliability
 - 2.2.4 Idea behind slide windows
 - 2.2.5 Ports connections and end points
 - 2.2.6 Segment, stream, sequence number
 - 2.2.7 TCP segment format
 - 2.2.8 TCP header
 - 2.2.9 TCP Checksum computation
 - 2.2.10 Acknowledgement and retransmission
 - 2.2.11 Time out and retransmission
 - 2.2.12 Response to congestion
 - 2.2.13 Establishment of a TCP connection
 - 2.2.14 Source and destination address
 - 2.2.15 Protocol number
 - 2.2.16 Checksum
 - 2.2.17 Closing TCP connection
 - 2.2.18 TCP connection reset
- 2.3 Connection less data gram delivery (Internet Protocol)
 - 2.3.1 Concept of unreliable delivery
 - 2.3.2 Connection less delivery system
 - 2.3.3 Purpose of internet protocol
 - 2.3.4 IP header
 - 2.3.5 Source and destination address
 - 2.3.6 Protocol number
 - 2.3.7 Checksum
 - 2.3.8 Routing in an internet
 - 2.3.9 Direct and indirect delivery
 - 2.3.10 Table driver IP rooting
 - 2.3.11 Default roots

- 2.3.12 Post specific roots
- 2.3.13 Rooting with IP address
- 2.3.14 Obtaining a subnet mask
- 2.3.15 Benefits of TCP/IP
- 2.4 Subnet Address Extension
 - 2.4.1 Introduction to subnet address extension
 - 2.4.2 Minimizing network numbers
 - 2.4.3 Transparent routers
 - 2.4.4 Subnet Addressing
 - 2.4.5 Flexibility in subnet address assignment
 - 2.4.6 Implementation of subnet with mask
 - 2.4.7 Subnet mask representation
 - 2.4.8 Routing in the presence of subnet
- 2.5 User Data gram Protocol
 - 2.5.1 Introduction to UDP
 - 2.5.2 Identifying the ultimate destination
 - 2.5.3 Format of UDP message
- 2.6 Domain Name System
 - 2.6.1 Internet addressing
 - 2.6.2 IP address/domain name address; why both

4

- 2.6.3 Mapping of domain name to address
- 2.6.4 Domain name resolution
- 2.6.5 Efficient translation
- 2.6.6 Abbreviation of domain name
- 2.6.7 Obtaining authority for a sub domain

3. Internet Applications and Services

- 3.1 Email
 - 3.1.1 Email networks
 - 3.1.2 Email protocols
 - 3.1.3 Format of an email message
 - 3.1.4 Email routing
 - 3.1.5 Email clients, POP3, IMAP

12

3.2 FTP

- 3.2.1 Public domain software
- 3.2.2 Types of FTP servers
- 3.2.3 FTP clients
- 3.3 Telnet
 - 3.3.1 Telnet protocol
 - 3.3.2 Server domain
 - 3.3.3 Telnet clients
 - 3.3.4 Terminal emulation
- 3.4 Internet Relay Chat
 - 3.4.1 IRC network and servers
 - 3.4.2 Channels

4. Internet Security

3

- 4.1 Overview of Internet Security threats & Vulnerability
- 4.2 The need for computer security
- 4.3 Firewalls: introductory concepts & its necessity
- 4.4 Specific intruder approach
- 4.5 Security strategies
- 4.6 Security tools
- 4.7 Encryption
- 4.8 Enterprise networking & access to Internet
- 4.9 Antivirus programs

5. E – Commerce

10

- 5.1 Electronic Commerce Environment & Opportunities
 - 5.1.1 Background
 - 5.1.2 Electronic commerce environment
 - 5.1.3 Electronics market place technologies
 - 5.1.4 Modes of electronic commerce

- 5.2 Overview
 - 5.2.1 Electronic data interchange
 - 5.2.2 Migration to OPEN EDI
 - 5.2.3 Electronic commerce with www/Internet
- 5.3 Electronics Payment System
 - 5.3.1 Types of electronics payment system
 - 5.3.2 Digital token based electronics payment system
 - 5.3.3 Smart cards & electronics payment system
 - 5.3.4 Credit card based electronics payment system
 - 5.3.5 Risk and electronics payment system
 - 5.3.6 Designing electronics payment system
- 5.4 Electronic Cash & Electronics Payment Scheme
 - 5.4.1 Internet monetary payment & security requirements
 - 5.4.2 Payment & purchase order process
 - 5.4.3 On-line Electronic cash
- 5.5 Master Card / Visa secure Electronic Transaction
 - 5.5.1 Business requirements
 - 5.5.2 Concepts
 - 5.5.3 Payment processing.

6. HTML & Interactive tools

- 6.1 Document overview
- 6.2 Header elements
- 6.3 Section headings
- 6.4 Block oriented elements
- 6.5 Lists
- 6.6 Inline elements
- 6.7 Visual markup
- 6.8 Hypertext links
- 6.9 Uniform Resource Locator
- 6.10 Imagers

		Tables 2 Special characters		<a< th=""><th>HREF> </th></a<>	HREF>
		³ CGI (Common Gateway Interface)			
		Active X 5 VB Script		7.	Creation of tables and lis
		5 Java Script and java.		8.	Creation of simple forms
		PERL		-	(command button, text be
-	7. Inti	oduction to ASP	5		box) in HTML pages
	7.1	Concepts of ASP	c .	9.	Practical on different Inte
	7.2	Benefits of using ASP			Chat)
	7.3	Creating ASP pages			,
	7.4	Generating web pages dynamically wit	h ASP	10.	Simple application using
			2	11.	Develop application usin
8		rch Engines	3	12.	Creation of classes, inter-
	8.1 8.2	Technology overview Popular search engines		13	Simple application using
	8.2	Registration of web site in a search eng	ines		
	0.5	Registration of web site in a search eng	Total: 45	14.	Simple application using
				15.	Creating application to cr
				16.	Simple application to har
		FICAL		17	Write application to inco
	Periods	eriods : 60 : 4 P/W			**
	1 crious			18.	Creating application for t
	1. In	stallation of network components under NT of	or 95/98/ LINUX	19.	Creating application for n
		stallation of TCP/IP		20.	Writing applet and embed
		stallation of Intranet		21	Create applet to display of
		onfiguration of one web server including Apa eployment of HTML files in Intranet servers	icne, 155	21.	
	J. D	cprovinent of fff will mes in intranet servers			ellipse, arcs, rectangle) an
	6. Ci	eation of simple HTML pages, using the foll	owing tags.	22.	Create applet to incorpor
		Hn>			button, text box, text area
		>>3r>			frame, check box group)

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tables and lists using HTML simple forms incorporating GUI components button, text box, radio button, check box, combo ML pages n different Internet services (WWW, Mail, FTP, plication using conditional statements plication using loop constraints classes, interfaces and packages blication using threads and runable interface plication using thread synchronization methodology oplication to create user defined exception plication to handle inbuilt exceptions ication to incorporate simple I/O classes oplication for text file handling oplication for random file handling plet and embedding it into HTML file let to display different graphical shapes (line, circle, es, rectangle) and incorporate colour in those shapes let to incorporate GUI components (command box, text area, list box, combo box, check box,

23. Create applet-using layout manager

- 24. Write applet to incorporate events
- 25. Create multi threaded applet
- 26. Elementary problems on CGI
- 27. Elementary problems on Active X
- 28. Elementary problems on VBscript
- 29. Elementary problems on Java Script
- 30. Elementary problems on PERL
- 31. Elementary ideas on PHP, MySQL, JSP

REFERENCE BOOKS:

- 1. Internet working with TCP/IP Vol I : principles, protocols and architecture by Douglas E. Comer PHI
- 2. Internet working with TCP/IP Vol II : design, implementation and internals by Douglas E. Comer & David L. Stevens PHI
- Internet working with TCP/IP Vol III : client server programming and applications – by Douglas E. Comer & David L. Stevens – PHI
- 4. HTML : the definitive guide by Chuck Musciano& Bui Kennedy SPD
- 5. E-MAIL security : how to keep your electronic messages private by Bruce Schneier John Wiley
- 6. Dynamic HTML : the definitive reference by Danny Goodman SPD
- Dynamic HTML in Action by Schurman&Pardi PHI/Microsoft Press

PROFESSIONAL PRACTICES – IV

L	Т	Р		Curri. Ref. No.: CSE510
3	0	2		
Tot	al Con	tact Hrs.:	Total Marks: 150	Theory: 0
The	eory: 0			End Term Exam :0
Pra	ctical:	45		P.A.: 0
Pre	requis	ite: Nil		Practical: 50
Cre	edit: 2			End Term Exam: 0
				P.A.:50

PRACTICAL

Total Periods : 45 Periods : 3P/W

AIM: The course aims to equip students with basic knowledge and skills about Computer networking, data communication and troubleshooting of common problems.

OBJECTIVE: - On completion of this course, the Student will be able to:

- Install different types of software
- Perform System maintenance & trouble shooting
- Communicate between PC and other related device

SUGGESTED LIST OF ACTIVITIES TO BE DONE:

- Installation of Operating system and other software
- Installation of Open source software application
- Installation of database (SQL/MySQL)
- System maintenance and troubleshooting
- Communication between PC and other devices like mobile or palmtop through Bluetooth or other technologies.

SUGGESTED LEARNING RESOURCES

- 1. Computer Troubleshooting by K. MacRae, G. Marshal, Haynes Publishing.
- Handbook of Computer Troubleshooting by M. Byrd, J. Pearson, R.A. Saigh, The Glen Lake Publishing Company.

Sample path for Term V in Computer Science & Engineering.

	Code	Course	Study Scheme					Evaluation Scheme							
Sl. No			site	Contact Hours / Week		Theory				Practical					
			Pre-requisite	L	Т	Р	End Exam	Progressive Assessment		End	Progressive Assessment		Total Marks	Credit	
								Class Test	Assign ment	Atten dance	Exam	Sessi onal	Viva voce		
1	112-502	Multimedia & Computer Graphics	CSE407 CSE404	4	0	4	70	15	10	5	25	25	0	150	6
2	CSE410	Database Management System	CSE404 CSE406	3	0	4	70	15	10	5	25	25	0	150	5
3	CSF408	Software Engineering	CSE402	3	0	0	70	15	10	5	0	0	0	100	3
4	CSE504	Business Data Processing	CSE404	3	0	4	70	15	10	5	25	25	0	150	5
5	CSE505	Internetworking & Web Technology	NIL	3	0	4	70	15	10	5	25	25	0	150	5
6	CSE510	Professional Practice-IV	NIL	0	0	3	0	0	0	0	0	50	0	50	2
TOTAL 16 0 19 350 75 50 25 100 150 0									0	750	26				