

E.G.S. PILLAY ENGINEERING COLLEGE

(Autonomous)

Approved by AICTE, New Delhi | Affiliated to Anna University, Chennai

Accredited by NAAC with 'A' Grade | Accredited by NBA (CSE, EEE, MECH)

NAGAPATTINAM – 611 002



B.TECH INFORMATION TECHNOLOGY

Third Year – Fifth Semester

Course Code	Course Name	L	T	P	C	Maximum Marks		
						CA	ES	Total
Theory Course								
1702IT501	Object Oriented Analysis And Design	3	0	0	3	40	60	100
1702IT502	Distributed Computing	3	0	0	3	40	60	100
1702IT503	Computer Graphics And Multimedia	3	0	2	4	50	50	100
1702IT504	Web Programming	3	0	2	4	50	50	100
1703IT003	Artificial Intelligence (Elective 1)	3	0	0	3	40	60	100
1703IT006	Multi core Programming (Elective 2)	3	0	0	3	40	60	100
Laboratory Course								
1704IT551	Case Tools(Mini Project I)	0	0	2	1	50	50	100
1704GE551	Life Skills: Aptitude I	0	0	2	1	100	-	100
1704IT552	Technical Seminar	0	0	2	1	100	-	100
Total		18	0	10	23	510	390	900

1702IT501	OBJECT ORIENTED ANALYSIS AND DESIGN	L	T	P	C
		3	0	0	3

PREREQUISITE:

1. Software Engineering and Project Management.

COURSE OBJECTIVES:

1. Learn the basics of OO analysis and design skills.
2. Learn the UML design diagrams.
3. Learn to map design to code.
4. Be exposed to the various testing techniques.

UNIT I UML DIAGRAMS

9Hours

Introduction to OOAD – Unified Process - UML diagrams – Use Case – Class Diagrams– Interaction Diagrams – State Diagrams – Activity Diagrams – Package, component and Deployment Diagrams

UNIT II DESIGN PATTERNS

9 Hours

GRASP: Designing objects with responsibilities – Creator – Information expert – Low Coupling – High Cohesion – Controller - Design Patterns – creational - factory method - structural – Bridge – Adapter - behavioral – Strategy – observer

UNIT III CASE STUDY

9 Hours

Case study – the Next Gen POS system, Inception -Use case Modeling - Relating Use cases –include, extend and generalization - Elaboration - Domain Models - Finding conceptual classes and description classes – Associations – Attributes – Domain model refinement – Finding conceptual class Hierarchies - Aggregation and Composition

UNIT IV APPLYING DESIGN PATTERNS

9 Hours

System sequence diagrams - Relationship between sequence diagrams and use cases Logical architecture and UML package diagram – Logical architecture refinement - UML class diagrams – UML interaction diagrams - Applying GoF design patterns

UNIT V CODING AND TESTING

9 Hours

Mapping design to code – Testing: Issues in OO Testing – Class Testing – OO Integration Testing –GUI Testing – OO System Testing.

TOTAL: 45 HOURS

FURTHER READING / CONTENT BEYOND SYLLABUS / SEMINAR :

1. Software Development.
2. Software Design.

REFERENCES:

1. Craig Larman, "Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and Iterative Development", Third Edition, Pearson Education, 2016.
2. Simon Bennett, Steve Mc Robb and Ray Farmer, "Object Oriented Systems Analysis and Design Using UML", Fourth Edition, Mc-Graw Hill Education, 2012.
3. Erich Gamma, a n d Richard Helm, Ralph Johnson, John Vlissides, "Design patterns: Elements of Reusable Object-Oriented Software", Addison-Wesley, 2012.
4. Martin Fowler, "UML Distilled: A Brief Guide to the Standard Object Modeling Language", Third edition, Addison Wesley, 2013.
5. Paul C. Jorgensen, "Software Testing:- A Craftsman's Approach", Third Edition, Auerbach Publications, Taylor and Francis Group, 2010.
6. <http://nptel.ac.in/>

1702IT502

DISTRIBUTED COMPUTING

L	T	P	C
3	0	0	3

PREREQUISITE:

1. Computer Networks

COURSE OBJECTIVES:

1. To provide knowledge on principles underlying the design of distributed systems
2. To lay the foundations of Distributed Systems.
3. To introduce the idea of Distributed Architecture.
4. To introduce the idea of Distributed operating system and related issues.

UNIT I BASIC CONCEPTS

9 Hours

Characterization of Distributed Systems – Examples – Resource Sharing and the Web – Challenges – System Models– Architectural and Fundamental Models – Networking and Internetworking – Types of Networks – Network Principles- Internet Protocols

UNIT II INTERPROCESS COMMUNICATION AND DISTRIBUTED OBJECTS

9 Hours

Interprocess Communication – The API for the Internet Protocols – External Data Representation and Marshalling –Client –Server Communication – Group Communication – Case Study – Distributed Objects and Remote Invocation– Communication Between Distributed Objects – Remote Procedure Call – Events and Notifications.

UNIT III DISTRIBUTED TRANSACTIONS AND CONCURRENCY CONTROL

9 Hours

Transactions - Locks - Optimistic Concurrency Control - Timestamp Ordering - Comparison - Flat and Nested Distributed Transactions - Atomic Commit Protocols - Concurrency Control in Distributed Transactions – Distributed Deadlocks - Transaction Recovery

UNIT IV RESOURCE MANAGEMENT

9 Hours

Time and Global States-Introduction-Clocks, Events and Process states-Synchronizing physical clocks-Logical time and logical clocks-Global states-Distributed debugging-Coordination and Agreement-Introduction-Distributed mutual exclusion-Elections Algorithm- Multicast communication-Consensus and related problems

UNIT V DISTRIBUTED FILE SYSTEM AND NAME SERVICES

9 Hours

Distributed File Systems-Introduction-File service architecture-Network File System- Name Services – introduction -Name Services and the Domain Name System-Directory Services.

TOTAL: 45 HOURS

FURTHER READING / CONTENT BEYOND SYLLABUS / SEMINAR :

1. Cloud Computing.
2. Service Oriented Architecture.
3. Deep Learning.

REFERENCES:

1. George Coulouris, Jean Dollimore, Tim Kindberg, —Distributed Systems Concepts and Designl, Seventh Edition, Pearson Education Asia, 2016.
2. Introduction to Parallel Computing, Second Edition, AnanthGrama, Anshul Gupta, George arypis, Vipin Kumar, : Addison Wesley 2013
3. Ajay D. Kshemkalyani and MukeshSinghal, —Distributed Computing: Principles, Algorithms and Systemsl, Cambridge Press. 2014
4. A.S.Tanenbaum, M.Van Steen, —Distributed Systemsl, Pearson Education, 2012.
5. M.L.Liu, —Distributed Computing Principles and Applicationsl, Pearson Addison Wesley, 2014.
6. Tom White, —Hadoop: The Definitive Guidel, O'REILLY Media, 2011.
7. <http://nptel.ac.in/>

1702IT503	COMPUTER GRAPHICS AND MULTIMEDIA	L	T	P	C
		3	0	2	4

PREREQUISITE:

Engineering Graphics, Computer Programming

COURSE OBJECTIVES:

1. Provide in-depth knowledge of display systems, image synthesis and shapes.
2. Understand basic concepts related to Multimedia including data standards, algorithms and software.
3. Develop multimedia applications by utilizing existing libraries.

UNIT I GRAPHICS FUNDAMENTALS 9 Hours

Introduction-Line Circle and Ellipse Drawing Algorithm-Attribute-Two dimensional geometric transformation-Two dimensional Clipping and Viewing

UNIT II TWO DIMENSIONAL GRAPHICS 9 Hours

Two dimensional geometric transformations - Matrix representations and homogeneous co ordinates, composite transformations: window to-viewport coordinate transformation, Two dimensional viewing functions: clipping operations-Point Clipping - Line Clipping: Cohen Sutherland, Liang Barsky -Polygon Clipping: Sutherland Hodgeman

UNIT III THREE DIMENSIONAL GRAPHICS 9 Hours

3D concepts and object representation:3D display methods, polygon surfaces, tables, equations, meshes, curved lies and surfaces, quadric surfaces, spline representation, cubic spline interpolation methods, Bezier curves and surfaces, B-spline curves and surfaces.

3D transformation and viewing:3D scaling, rotation and translation, composite transformation, viewing pipeline and coordinates, parallel and perspective transformation, view volume and general (parallel and perspective) projection transformations.

UNIT IV ANIMATION 9 Hours

Text: Using Text in Multimedia, computer and text, Font Editing and design tools, hypermedia and hypertext - Image: Making Still Images, color, Image File format, Principles of Animation, animation by computer, making animation - Video: Digital video containers, shooting and editing video.

UNIT V MULTIMEDIA 9 Hours

Basic software tools - Text, image, and sound editing tools - painting and drawing tools, animation tools - making instant multimedia - Office suite - Multimedia authoring tools: Types and page based authoring tools, icon and time based authoring tools.

List of Experiments: 15 Hours

1. Implementation of Line, Circle, Ellipse drawing Using DDA Algorithm and Bresenham Algorithm
2. Implementation of 2D Transformations
3. Implementation of 3D Transformations
4. Implementation of Line Clipping Algorithm
5. Use of various Photo editing tool to solve real time problems and apply various effects
6. Use of various Animation tools to solve real time problems and apply various effects
7. To perform a morphing effect of crying face to sad face to happy face and last to most happiest face.
8. Use of Open GL tool to perform Animation and Virtual Reality effects.

TOTAL: 60 HOURS

FURTHER READING / CONTENT BEYOND SYLLABUS / SEMINAR :

1. Computer Vision.
2. Visualization Techniques.

REFERENCES:

1. J. D. Foley, A. Van Dam, S. K. Feiner and J. F. Hughes, Computer Graphics; Principles and practice; Second Edition in C;; Addison Wesley, 2016
2. Computer Graphics - C version; D. Hearn and M. P. Baker; Pearson Education, 2014.
3. Computer Graphics - OpenGL version; D. Hearn and M. P. Baker; Pearson Education, 2015
4. K. Andleigh, KiranThakrar , Multimedia Systems Design, PHI, 2012
5. ZeNian Li, S. Drew, "Fundamentals of Multimedia", PHI, 2012.
6. Donald Hearn and M Pauline Baker, Computer Graphics, Pearson Education, 2nd Edition, 2013.
7. <http://nptel.ac.in/>

1702IT504

WEB PROGRAMMING

L	T	P	C
3	0	2	4

PREREQUISITE:

1. Programming in Java Programming.
2. Database Management Systems

COURSE OBJECTIVES:

1. To understand the concept of client / server programming
2. To apply web programming languages for developing web applications
3. To know the unique features of scripting languages

UNIT I WEB ESSENTIALS

9 Hours

Internet – Web clients – Web servers – Markup languages – Introduction to XHTML-Editing XHTML-Headings-Linking –Tables-Images-Forms-Internal linking – Frames - Lists- Cascading Style Sheets (CSS): Features-Style rule cascading and inheritance - Text properties –CSS box model.

UNIT II CLIENT SIDE PROGRAMMING

9 Hours

Client side vs. Server side programming languages - Introduction to java script –Control statements I - Control statements II - Functions- Objects – Arrays – PHP Programming

UNIT III SERVER SIDE PROGRAMMING

9 Hours

Java servlet: Architecture – Servlet life cycle -Simple programs using java servlet– Parameter data – Sessions – Cookies – Other servlet capabilities –Data storage –Servlet and concurrency- JDBC- Connecting a java servlet program to a database

UNIT IV XML AND WEB SERVICES

9 Hours

XML Namespaces-DTD and XML schema-XML parsers: DOM vs. SAX-XSLT – Xquery - XPath- JSP - Running JSP applications – Java beans classes and JSP - Web services concepts - Web services for clients – WSDL – Representing data types: XML schema – SOAP - J2EE

LIST OF EXPERIMENTS

24 HOURS

1. Write a html program for Creation of web site with forms, frames, links, tables etc
2. Design a web site using HTML and DHTML. Use Basic text Formatting, Images,
3. Create a script that asks the user for a name, then greets the user with "Hello" and the user name on the page
4. Create a script that collects numbers from a page and then adds them up and prints them to a blank field on the page.
5. Create a script that prompts the user for a number and then counts from 1 to that number displaying only the odd numbers.
6. Create a script that will check the field in Assignment 1 for data and alert the user if it is blank. This script should run from a button.
7. Using CSS for creating web sites
8. Creating simple application to access data base using JDBC Formatting HTML with CSS.
9. Program for manipulating Databases and SQL.
10. Program using PHP database functions.
11. Write a web application that functions as a simple hand calculator, but also keeps a "paper trail" of all your previous work
12. Install Tomcat and use JSP and link it with any of the assignments above
13. Reading and Writing the files using .Net
14. Write a program to implement web service for calculator application
15. Implement RMI concept for building any remote method of your choice.

TOTAL: 60 HOURS

FURTHER READING / CONTENT BEYOND SYLLABUS / SEMINAR :

1. Software Development
2. Mobile Application Development

REFERENCES:

1. Jeffrey C Jackson, Web Technology – A computer Science perspective, Person Education, New Delhi, 2016.
2. Frank. P. Coyle, XML, Web Services and the Data Revolution, Addison-Wesley Professional, 2012.

3. Chris Bates, Web Programming – Building Internet Applications, Wiley India, 2013.
4. Deitel, Deitel and Neito, Internet and World wide web – How to program, Pearson education, New Delhi, 2016.
5. Gopalan. N.P, Web Technology A Developer Perspectives, PHI, 2012
6. H.M.Deitel, P.J.Deitel, T.R.Nieto, T.M.Lin, XML How to Program, Pearson Education,2012
7. Ramesh Nagappan, Robert Skoczylas and Rima Patel Sriganesh, Developing Java Web Services, Wiley Publishing Inc., 2011.
8. Steve Graham and Doug Davis, Building Web services with Java, Pearson Education 2011
- 9.<http://nptel.ac.in/>
- 10.<http://sololearners.com/>
11. <http://tutorialpoint.org>

1703IT003

ARTIFICIAL INTELLIGENCE

L	T	P	C
3	0	0	3

PREREQUISITE:

1. Computer Networks.
2. Software Engineering and Project Management

COURSE OBJECTIVES:

1. Study the concepts of Artificial Intelligence.
2. Learn the methods of solving problems using Artificial Intelligence.
3. Introduce the concepts of Expert Systems and machine learning.

UNIT I INTRODUCTION TO AI

9 Hours

Artificial Intelligence – Problem Solving – Production Systems – Algorithms Analysis – Searching Techniques – Case Study: Constraint Satisfaction Problem, Hill Climbing

UNIT II KNOWLEDGE REPRESENTATION

9 Hours

Knowledge Representation – Predicate Calculus – Inference – Forward & Backward Chaining – Bayes Theory – Fuzzy Approach – Case Study: Game Playing

UNIT III PLANNING

9 Hours

Basic Plan generation – Strips Language – Scheduling - Explanation – Case Study: Graph Coloring, Reactive Systems

UNIT IV MACHINE LEARNING

9 Hours

Machine Learning Techniques – Types – Approaches – Applications – Case Study: Ontology, Deep Learning

UNIT V EXPERT SYSTEMS

9 Hours

Expert systems - Architecture of expert systems, Roles of expert systems – Case Study: Recommendation Systems, Smart GRID, Industrial Internet Search Engines, Social Semantics, Natural Language Processing

TOTAL: 45 HOURS

FURTHER READING / CONTENT BEYOND SYLLABUS / SEMINAR :

1. Machine Vision Systems.
2. Real Time Learning and Decision making systems

REFERENCES:

1. Kevin Night and Elaine Rich, Nair B., “Artificial Intelligence (SIE)”, McGraw Hill- 2016.
2. Dan W. Patterson, “Introduction to AI and ES”, Pearson Education, 2012.
3. Peter Jackson, “Introduction to Expert Systems”, 3rd Edition, Pearson Education, 2014.
4. Stuart Russel and Peter Norvig “AI – A Modern Approach”, 2nd Edition, Pearson Education 2010.
5. Deepak Khemani “Artificial Intelligence”, Tata Mc Graw Hill Education 2013.
6. <http://nptel.ac.in/>

1703IT006

MULTICORE PROGRAMMING

L	T	P	C
3	0	0	3

PREREQUISITE:

1. Computer Organization and Architecture

COURSE OBJECTIVES:

1. Understand the recent trends in the field of computer architecture and identify performance related parameters
2. Appreciate the need for parallel processing
3. Understand the challenges in parallel and multi-threaded programming
4. To understand the different types of multicore architectures

UNIT I INTRODUCTION TO MULTICORE PROCESSORS

9 Hours

Scalable design principles – Principles of processor design – Instruction Level Parallelism, Thread level parallelism. Parallel computer models – Symmetric and distributed shared memory architectures – Multi-core Architectures - Software and hardware multithreading – SMT and CMP architectures – Design issues – Case studies – Intel Multi-core architecture – SUN CMP architecture.

UNIT II PARALLEL PROGRAMMING

9 Hours

Performance Issues – Scalability – Synchronization and data sharing – Data races – Synchronization primitives (mutexes, locks, semaphores, barriers) – deadlocks and live locks communication between threads (condition variables, signals, message queues and pipes).

UNIT III OPEN MP PROGRAMMING

9 Hours

OpenMP – Threading a loop – Thread overheads – Performance issues – Library functions. Solutions to parallel programming problems – Data races, deadlocks and live locks – Non-blocking algorithms – Memory and cache related issues.

UNIT IV MPI PROGRAMMING

9 Hours

MPI Model – MPI constructs – MPI Library –Point-to-point and Collective communication – data decomposition – communicators and topologies – MPI derived data types – Performance evaluation

UNIT V MULTITHREADED APPLICATION DEVELOPMENT

9 Hours

Case studies – n-Body solvers – Tree Search – OpenMP and MPI implementations and comparison – Algorithms, program development and performance tuning.

TOTAL: 45 HOURS

FURTHER READING / CONTENT BEYOND SYLLABUS / SEMINAR :

1. Case study of Testing tools like Rational Robot, Amazon Tools

REFERENCES:

1. Shameem Akhter and Jason Roberts, “Multi-core Programming”, Intel Press, 2016.
2. Michael J Quinn, Parallel programming in C with MPI and OpenMP, Tata Macgraw Hill, 2013.
3. Peter S. Pacheco, “An Introduction to Parallel Programming”, Morgan-Kauffman/Elsevier, 2011.
4. John L. Hennessey and David A. Patterson, “ Computer architecture – A quantitative approach”, Morgan Kaufmann/Elsevier Publishers, 4th. edition, 2011.
5. David E. Culler, Jaswinder Pal Singh, “Parallel computing architecture: A hardware/ software approach” , Morgan Kaufmann/Elsevier Publishers, 2012.
6. <http://nptel.ac.in/>

1704IT551

**CASE TOOLS
(MINI PROJECT 1)**

L	T	P	C
0	0	2	1

PREREQUISITE :

Software Engineering and Project Management

COURSE OBJECTIVES:

1. Learn the basics of OO analysis and design skills.
2. Be exposed to the UML design diagrams.
3. Learn to map design to code.
4. Be familiar with the various testing techniques

TO DEVELOP A MINI-PROJECT USING FOLLOWING PROBLEM STATEMENTS

1. Identify Use Cases and develop the Use Case model.
2. Identify the conceptual classes and develop a domain model with UML Class diagram.
3. Using the identified scenarios, find the interaction between objects and represent them using UML Sequence diagrams.
4. Draw relevant state charts and activity diagrams.
5. Identify the User Interface, Domain objects, and Technical services. Draw the partial layered, logical architecture diagram with UML package diagram notation.
6. Develop and test the Technical services layer.
7. Develop and test the Domain objects layer.
8. Develop and test the User interface layer.

TOTAL:45 HOURS

REQUIREMENTS:

Argo UML or Eclipse IDE or Rational Suite or Visual Paradigm or equivalent

ADDITIONAL EXPERIMENTS/ INNOVATIVE EXPERIMENTS:

1. Commercial building like sky scrapers
2. Domed structures

REFERENCES:

1. Craig Larman, "Applying UML and Patterns: An Introduction to Object-Oriented Analysis and Design and Iterative Development", Third Edition, Pearson Education, 2016.
2. Simon Bennett, Steve Mc Robb and Ray Farmer, "Object Oriented Systems Analysis and Design Using UML", Fourth Edition, Mc-Graw Hill Education, 2012.
3. Erich Gamma, a n d Richard Helm, Ralph Johnson, John Vlissides, "Design patterns: Elements of Reusable Object-Oriented Software", Addison-Wesley, 2012.
4. Martin Fowler, "UML Distilled: A Brief Guide to the Standard Object Modeling Language", Third edition, Addison Wesley, 2013.
5. Paul C. Jorgensen, "Software Testing:- A Craftsman's Approach", Third Edition, Auerbach Publications, Taylor and Francis Group, 2010.

1704GE551

LIFE SKILLS: APTITUDE – I

L	T	P	C
0	0	2	1

PREREQUISITE :

Technical English – I and II

COURSE OBJECTIVES:

1. To brush up problem solving skill and to improve intellectual skill of the students
2. To be able to critically evaluate various real life situations by resorting to Analysis Of key issues and factors
3. To be able to demonstrate various principles involved in solving mathematical problems and thereby reducing the time taken for performing job functions.
4. To enhance analytical ability of students
5. To augment logical and critical thinking of Student

Unit I Introduction to Number System, Basic Shortcuts of addition, Multiplication, Division 6 Hours

Classification of numbers – Types of Numbers - Divisibility rules - Finding the units digit - Finding remainders in divisions involving higher powers - LCM and HCF Models - Fractions and Digits – Square, Square roots – Cube, Cube roots – Shortcuts of addition, multiplication, Division.

Unit II Ratio and proportion, Averages 6 Hours

Definition of Ratio - Properties of Ratios - Comparison of Ratios - Problems on Ratios - Compound Ratio - Problems on Proportion, Mean proportional and Continued Proportion Definition of Average - Rules of Average - Problems on Average - Problems on Weighted Average - Finding average using assumed mean method.

Unit III Percentages, Profit And Loss 6 Hours

Introduction Percentage - Converting a percentage into decimals - Converting a Decimal into a percentage - Percentage equivalent of fractions - Problems on percentages - Problems on Profit and Loss percentage-Relation between Cost Price and Selling price - Discount and Marked Price - Two different articles sold at same Cost Price - Two different articles sold at same Selling Price - Gain% / Loss% on Selling Price.

Unit IV Coding and decoding, Direction sense 6 Hours

Coding using same set of letters - Coding using different set of letters - Coding into a number - Problems on R-model - Solving problems by drawing the paths - Finding the net distance travelled - Finding the direction - Problems on clocks - Problems on shadows - Problems on direction sense using symbols and notations.

Unit V Number and letter series Number and Letter Analogies, Odd man out 6 Hours

Difference series - Product series - Squares series - Cubes series - Alternate series - Combination series - Miscellaneous series - Place values of letters - Definition of Analogy - Problems on number analogy - Problems on letter analogy - Problems on verbal analogy - Problems on number Odd man out - Problems on letter Odd man out - Problems on verbal Odd man out

Total: 30 Hours

FURTHER READING / CONTENT BEYOND SYLLABUS / SEMINAR :

Verbal Reasoning, Non-Verbal Reasoning, Quantitative and Qualitative Aptitude

REFERENCES:

1. Arun Sharma, 'How to Prepare for Quantitative Aptitude for the CAT', 7th edition, McGraw Hills publication, 2016.
2. Arun Sharma, 'How to Prepare for Logical Reasoning for CAT', 4th edition, McGraw Hills publication, 2017.
3. R S Agarwal, 'A modern approach to Logical reasoning', revised edition, S.Chand publication, 2017.
4. R S Agarwal, 'Quantitative Aptitude for Competitive Examinations' revised edition, S.Chand publication, 2017.
5. Rajesh Verma, "Fast Track Objective Arithmetic", 3rd edition, Arihant publication, 2018.
6. B.S. Sijwali and InduSijwali, "A New Approach to REASONING Verbal & Non-Verbal", 2nd edition, Arihant publication, 2014.

1704IT552

TECHNICAL SEMINAR

L	T	P	C
0	0	2	1

COURSE OBJECTIVES:

1. To develop the self-learning skills to utilize various technical resources available from multiple field.
2. To promote the technical presentation and communication skills.
3. To impart the knowledge on intonation, word and sentence stress for improving communicative competence, identifying and overcoming problem sounds.

The students are expected to make two presentations on advanced topics (recent trends) related to III or IV semester subjects. A faculty guide is to be allotted and he / she will guide and monitor the progress of the student and maintain attendance also. Students are encouraged to use various teaching aids such as power point presentation and demonstrative models.

TOTAL: 45 HOURS

ASSESSMENT PATTERN :

Continuous Assessment (100 Marks)

Distribution of marks for Continuous Assessment	Marks
Presentation I	40
Report	10
Presentation II	40
Report	10
Total	100