**B.TECH 8th SEMESTER CSE**

**Name of faculty :**

**Discipline : CSE**

**Semster : 8th**

**Subject : Distributed Operating System**

**Lesson Plan Duration : 15 Weeks**

**Work Load(Per week) : 4 Hours/Week**

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| Week | Lecture Day | Topic |
| 1 | 1 | Introduction to Distributed System |
| 2 | Goals of Distributed System |
| 3 | Hardware and Software concepts |
| 2 | 4 | Design Issues |
| 5 | Communication in Distributed System |
| 6 | Layered protocol and ATM network |
| 3 | 7 | Client Server model & RPC |
| 8 | Group communication |
| 9 | Middleware and Distributed operating System |
| 4 | 10 | Problems of unit 1 |
| 11 | Clock synchronization |
| 12 | Mutual exclusion |
| 5 | 13 | Bully algorithm |
| 14 | Ring Algorithm |
| 15 | Atomic Transaction |
| 6 | 16 | Deadlock in Distributed System |
| 17 | Distributed deadlock prevention |
| 18 | Distributed deadlock detection |
| 7 | 19 | Revision of deadlock in Distributed System |
| 20 | Test of unit 1 |
| 21 | Introduction to threads |
| 8 | 22 | System models |
| 23 | Processor Allocation |
| 24 | Scheduling in Distributed System |
| 9 | 25 | Real time Distributed System |
| 26 | Test of Unit |
| 27 | Distributed File System design |
| 10 | 28 | Distributed File System Implementation |
| 29 | Trends in Distributed File System |
| 30 | Shared Memory |
| 11 | 31 | Consistency Model |
| 32 | Page based Distributed Shared memory |
| 33 | Shared variable distributed shared memory |
| 12 | 34 | Revision of distributed shared memory |
| 35 | Test of unit 4 |
| 36 | Introduction to MACH |
| 13 | 37 | Management in MACH |
| 38 | Communication in MACH |
| 39 | Unix emulation in MACH |
| 14 | 40 | Problems of unit 4 |
| 41 | Test of unit 4 |
| 42 | Revision of previous papers |
| 15 | 43 | Revision of Unit 1 |
| 44 | Problems of Complete Syllabus |
| 45 | Test of complete Syllabus |
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**B.TECH 8th SEMESTER CSE**

**Name of faculty : Aman Paul**

**Discipline : CSE**

**Semster : 8th**

**Subject : Security Information System**

**Lesson Plan Duration : 15 Weeks**

**Work Load(Per week) : 4 Hours/Week**

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| --- | --- | --- |
| **Date** | **Period** | **Topics to be covered** |
|  |  |  |
| 1 | 1 | **Overview of Information Security** Basic Concepts |
| 2 | Cryptosystems |
| 3 | Cryptoanalysis |
| 2 | 4 | Ciphers & Cipher modes. |
| 5 | **Symmetric Key Cryptography:** Introduction |
| 6 | DES. |
| 3 | 7 | AES |
| 8 | **Asymmetric Key Cryptography:** Introduction |
| 9 | RSA algorithm |
| 4 | 10 | Key management protocols |
| 11 | Diffie Hellman Algorithm |
| 12 | **Digital Signature:** Digital Signatures |
| 5 | 13 | Public Key Infrastructure |
| 14 | **Program Security:** Security problems in Coding |
| 15 | Malicious Logic |
| 6 | 16 | Protection. |
| 17 | **Database Security:** Introduction |
| 18 | Access Controls |
| 7 | 19 | Security |
| 20 | Integrity Threats |
| 21 | Defence Mechanisms |
| 8 | 22 | **.Net Security:**  Introduction |
| 23 | User based security |
| 24 | Code access security |
| 9 |  | form authentication |
| 25 | **LAN Security:** Introduction |
| 26 | Threats |
| 27 | Authentication & access control |
| 10 | 28 | Secured communication Mechanisms |
| 29 | IPSec |
| 30 | Kerberos |
| 11 | 31 | Biometric |
| 32 | PKI |
| 33 | Secured Design for LAN. |
| 12 | 34 | **Email & Transaction Security Mechanisms:** Introduction |
| 35 | PEM |
| 36 | S/MIME |
| 13 | 37 | SET |
| 38 | protocol |
| 39 | Client-Server Security on web |
| 14 | 40 | **Wi-Fi & IEEE 802.11 Security:** Introduction |
| 41 | Protocol architecture |
| 42 | WEP |
| 15 | 43 | Access controls |
| 44 | Revision |
| 45 | Revision |

**B.TECH 8th SEMESTER CSE**

**Name of faculty : Bhavika Jagga**

**Discipline : CSE**

**Semster : 8th**

**Subject : OOSD(CSE-412-E)**

**Lesson Plan Duration : 15 Weeks**

**Work Load(Per week) : 4 Hours/Week**

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| Week | Lecture Day | Topic |
| 1 | 1 | Review of the Traditional Methodologies |
| 2 | Advantages of Object Oriented Methodologies over Traditional Methodologies |
| 3 | Classes, Objects, Encapsulation |
| 2 | 4 | Association, Aggregation |
| 5 | Inheritance, Polymorphism & States and Transitions. |
| 6 | Visual Modelling, Object Oriented Modelling |
| 3 | 7 | Introduction to Unified Modelling Language (UML) |
| 8 | History of UML, Overview of UML Capabilities |
| 9 | Introduction to Rational Rose CASE tool |
| 4 | 10 | Capabilities of Rational Rose Case Tool |
| 11 | Test of Unit 1 |
| 12 | Introduction to objectory Software Development Process |
| 5 | 13 | Benefits, Phases, Iterations |
| 14 | Elaboration Stage, Construction Stage, Transition Stage |
| 15 | Types of Relationships,: Creating Main Use Case |
| 6 | 16 | Relationships , Additional Use Case |
| 17 | Diagrams in Rational Rose |
| 18 | Activity Diagrams Activities, Transitions, Decision Points, |
| 7 | 19 | Test of Unit 2 |
| 20 | State, Behaviour, Identity of Objects |
| 21 | Stereotypes and Classes, Documenting Classes in rational Rose |
| 8 | 22 | Packages, Drawing a Class Diagram Specifying Relationships |
| 23 | Association and Aggregation Relationships |
| 24 | Multiplicity Indicators, Reflexive Relationships, |
| 9 | 25 | Package Relationships, Inheritance, Finding Relationships |
| 26 | Creating Relationships in Rational Rose |
| 27 | Documenting Scenarios using Interaction Diagrams |
| 10 | 28 | Adding Behaviour and Structure |
| 29 | Creating Attributes & operations, Displaying attributes and operations |
| 30 | Association Classes, Analysing Object Behaviour |
| 11 | 31 | Modelling Dynamic Behaviour, States |
| 32 | Making the Model Homogeneous, |
| 33 | Combining Classes, Splitting Classes |
| 12 | 34 | Eliminating Classes, Consistency Checking, Walkthrough |
| 35 | Documentation Review, Designing the System Architecture |
| 36 | Event Tracing |
| 13 | 37 | The need for Architecture, The  “4+1” view of Architecture |
| 38 | The Logical view, The Component View, The Process View |
| 39 | The Deployment View, The Use Case view |
| 14 | 40 | Benefits, Goals, Design the User Interface, |
| 41 | Adding Design Classes |
| 42 | The Emergence of Patterns, Designing Relationships |
| 15 | 43 | Designing Attributes and Operations, Designing for Inheritance |
| 44 | Coding, Testing, and Documenting the Iteration |
| 45 | Test of unit 4 |
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**B.TECH 8th SEMESTER CSE**

**Name of faculty : Pragya Bansal**

**Discipline : CSE**

**Semester : 8th**

**Subject : Web Engineering(IT-470-E)**

**Lesson Plan Duration : 15 Weeks**

**Work Load(Per week) : 4 Hours/Week**

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| Week | Lecture | Topics |
| 1 | 1 | The role of the Information Architect, Collaboration and Communication |
| 2 | Organizing Information, Organizational Challenges |
| 3 | Organizing Web sites and Intranets |
| 2 | 4 | Creating Cohesive Organization Systems Designing Navigation Systems |
| 5 | Types of Navigation systems, Integrated Navigation Elements |
| 6 | Remote Navigation Elements, Designing Elegant Navigation Systems |
| 3 | 7 | Searching Systems, Searching your Web Site |
| 8 | Designing the Search Interface, Indexing the Right Stuff |
| 9 | To search or Not To Search, Grouping Content |
| 4 | 10 | Conceptual Design, High-Level Architecture Blueprints |
| 11 | Architectural Page Mockups, Design Sketches |
| 12 | Assignment + Revision of unit-1 |
| 5 | 13 | Test of Unit-1 |
| 14 | HTML Basic Concepts, Good Web Design, Process of Web Publishing |
| 15 | Phases of Web Site development, Structure of HTML documents |
| 6 | 16 | HTML Elements-Core attributes, Language attributes |
| 17 | Core Events, Block Level Events, Text Level Events |
| 18 | Linking Basics, Linking in HTML, Images and Anchors |
| 7 | 19 | Anchor Attributes, Image maps, Semantic Linking Meta Information |
| 20 | Image Preliminaries, Image Download Issues, Image as Buttons |
| 21 | Introduction to Layout: Backgrounds, Colors,Text, Fonts, Layout with Tables |
| 8 | 22 | Advanced Layout: Frames and Layers, HTML and other media types |
| 23 | Audio Support in Browsers, Video Support, Other binary Formats |
| 24 | Style Sheets, Positioning with Style sheets |
| 9 | 25 | FORMS, Form Control, New and emerging Form elements |
| 26 | Revision |
| 27 | Assignment |
| 10 | 28 | Test of unit-2 |
| 29 | Basics, Integrating Script, JSP/ASP Objects and Components |
| 30 | Configuring and troubleshooting |
| 11 | 31 | Request and response objects |
| 32 | Retrieving the contents of a an HTML form |
| 33 | Retrieving a Query String |
| 12 | 34 | Cookies, Creating and Reading Cookies |
| 35 | Using application Objects and Events |
| 36 | Revision + Assignment |
| 13 | 37 | Test of Unit-3 |
| 38 | Overview of advance features of XML |
| 39 | Test of Unit-4 |
| 14 | 40 | Revision of Unit 1 |
| 41 | Revision of Unit 2 |
| 42 | Revision of Unit 3 |
| 15 | 43 | Previous papers discussions |
| 44 | Problems of Complete Syllabus |
| 45 | Test of complete Syllabus |

**B.TECH 8th SEMESTER CSE**

**Name of faculty : Krishan Kumar**

**Discipline : CSE**

**Semester : 8th**

**Subject : Advance Java Lab(IT-407-E)**

**Lesson Plan Duration : 15 Weeks**

**Work Load(Per week) : 4 Hours/Week**

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| **Practical Day** | **Topics** |
| 1 | Write A Program To Print Sample Program Text |
| 2 | Write A Program In Java For ‘For’ Loop |
| 3 | Write A Program In Java For ‘While’ Loop |
| 4 | Write A Program In Java For ‘One D Array’ |
| 5 | Write A Program In Java For ‘Two D Array’ |
| 6 | Write A Program To Print Fibonacci Series Upto 10 Numbers |
| 7 | A Program To Perform Mathematical Peartaions.Create A Class Called Addsub With Methods To Add And Subtarct. Create Another Class Called Multdiv That Extends From Addsub Class To Extend The Member Data Of The Superclass.Multdiv Should Have Methods To Multilpy And Divide.A Main Method Should Access The Method And Perform The Mathematical Operations |
| 8 | Write A Program To Create Package |
| 9 | Write A Program To Craete An Applet Class |
| 10 | Write A Program To Insert Data Into Table Using Jsp |
| 11 | Write A Program To Show Validation Of User Using Servlet |
| 12 | Write A Program Todemonstrate Use Of Beans |
| 13 | Write A Program To Set Scope Of Beans |
| 14 | Write A Program To Demonstrate Working Of Rmi |
| 15 | Write A Program To Implement Inheritence |