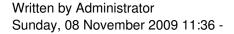
Written by Administrator Sunday, 08 November 2009 11:36 -					
Subject Code					
: 06IS72					
IA Marks					
: 25					
No. of Lecture Hours/Week					
: 04					
Exam Hours					
: 03					

Written by Administrator Sunday, 08 November 2009 11:36 -
Total No. of Lecture Hours
: 52
Exam Marks
: 100
PART - A
Unit - 1
Introduction: The Architecture Business Cycle: Where do architectures come from? Software processes and the architecture business cycle; What makes a "good" architecture?
What software architecture is and what it is not; Other points of view; Architectural patterns, reference models and reference architectures; Importance of software architecture; Architectural structures and views.
6 Hours



unit - 2

Architectural Styles and Case Studies: Architectural styles; Pipes and filters; Data abstraction and object-oriented organization; Event-based, implicit invocation; Layered systems; Repositories; Interpreters; Process control; Other familiar architectures; Heterogeneous architectures.

Case Studies: Keyword in Context; Instrumentation software; Mobile robotics; Cruise control; Three vignettes in mixed style.

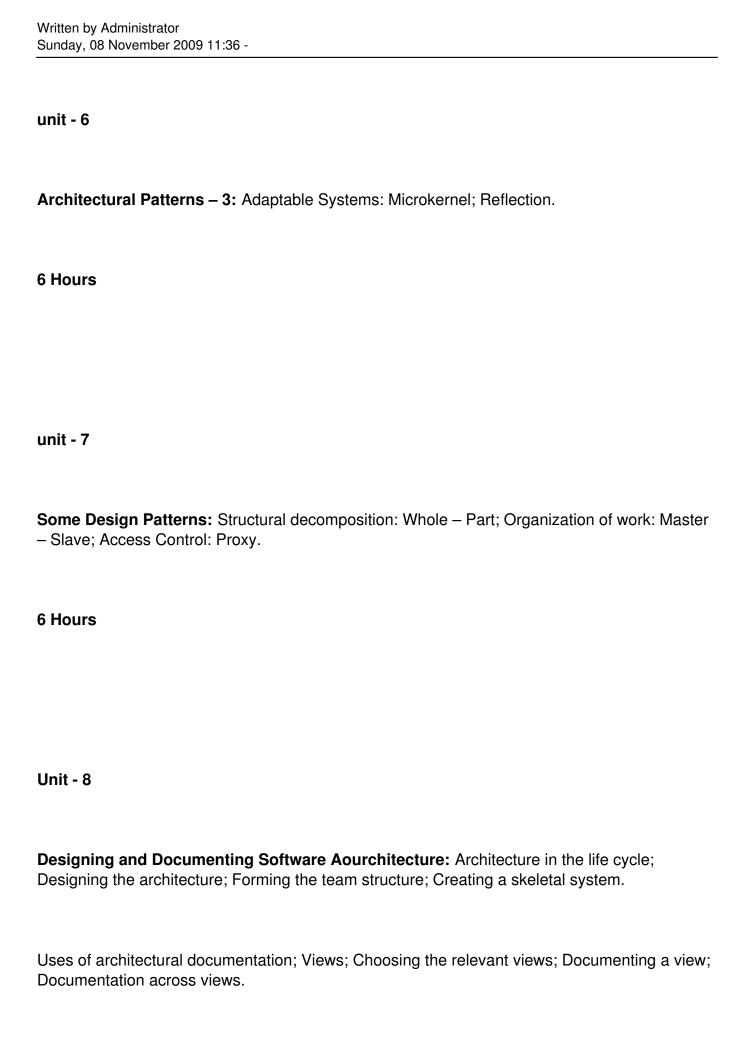
7 Hours

unit - 3

Quality: Functionality and architecture; Architecture and quality attributes; System quality attributes; Quality attribute scenarios in practice; Other system quality attributes; Business qualities; Architecture qualities.

Achieving Quality: Introducing tactics; Availability tactics; Modifiability tactics; Performance tactics; Security tactics; Testability tactics; Usability tactics; Relationship of tactics to architectural patterns; Architectural patterns and styles.

Written by Administrator Sunday, 08 November 2009 11:36 -
6 Hours
unit - 4
Architectural Patterns – 1: Introduction; from mud to structure: Layers, Pipes and Filters, Blackboard.
7 Hours
PART - B
Unit - 5
Architectural Patterns – 2: Distributed Systems: Broker; Interactive Systems: MVC, Presentation-Abstraction-Control.
7 Hours



Written by Administrator Sunday, 08 November 2009 11:36 -

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Text Books:

- 1. **Software Architecture in Practice -** Len Bass, Paul Clements, Rick Kazman, 2nd Edition, Pearson Education, 2003.
- 2. **Pattern-Oriented Software Architecture A System of Patterns, Volume 1 -** Frank Buschmann, Regine Meunier, Hans Rohnert, Peter Sommerlad, Michael Stal,

John Wiley and Sons, 2006

3. **Software Architecture- Perspectives on** an **Emerging Discipline -** Mary Shaw and David Garlan, Prentice-Hall of India, 2007.

Reference Book:

1. **Design Patterns- Elements of Reusable Object-Oriented Software -** E. Gamma, R. Helm, R. Johnson, J. Vlissides, Addison-Wesley, 1995.