

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**LECTURE SCHEDULE**

# CLASS : II B.TECH - II SEMESTER REGULATION: R16

# BRANCH : Computer Science & Engineering

**SUBJECT** : Software Engineering

**ACADEMIC YEAR** : 2017 - 2018

**FACULTY** : Mr NAGARAJU.K

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| **UNIT No. & Name** | **Topic** | **No. Of Classes**(Hours required) |
| **UNIT - I :****Software and Software Engineering and Process Models**: | **Lecture 1:** The Nature of Software**Lecture 2,3,**The Unique Nature of WebApps**Lecture 4:** Software Engineering**Lecture 5:** Software Process**Lecture 6:** Software Engineering Practice**Lecture7 :** Software Myths.**Lecture8:** A Generic Process Model**Lecture9 :** Process Assessment and Improvement**Lecture 10,11:** Prescriptive Process Models**Lecture 12:** Specialized Process Models**Lecture 13:** The Unified Process**Lecture 14:** Personal and Team Process Models**Lecture 15:** Process Terminology, Product and Process. | 16 |
| **UNIT - II :****Requirements Analysis And Specification and Software Design** | **Lecture 16,17:** Requirements Gathering and Analysis**Lecture 18,19:** Software Requirement Specification (SRS)**Lecture 20:** Formal System Specification. **Lecture 21:** Overview of the Design Process**Lecture 22:** How to Characterise of a Design?**Lecture 23:** Cohesion and Coupling**Lecture 2**4:Layered Arrangement of Modules**Lecture 25** Approaches to Software Design  | 10 |
| **UNIT - III :****Function-Oriented Software Design and User Interface Design** | **Lecture 26:** Overview of SA/SD Methodology**Lecture 27** Structured Analysis**Lecture 28,29:** Developing the DFD Model of a System**Lecture 30:** Structured Design, Detailed Design**Lecture 31:** Design Review**Lecture 32:** over view of Object Oriented design.**Lecture 33:** Characteristics of Good User Interface**Lecture 34:**Basic Concepts, Types of User Interfaces**Lecture 35:**Fundamentals of Component-based GUI Development**Lecture 36:** A User Interface DesignMethodology. | 11 |
| **UNIT - IV :****Coding And Testing** | **Lecture 37:** Coding, Code Review**Lecture 38,39:** Software Documentation, Testing, Unit Testing,**Lecture 40:** Testing, Unit Testing,**Lecture 41,42:** Black-Box Testing, White-Box Testing,**Lecture 43:** Debugging, Program Analysis Tools**Lecture 44:** Integration Testing,**Lecture 45:** Testing Object-Oriented Programs**Lecture 46:** System Testing**Lecture 47:** Some General Issues Associated with Testing | 11 |
| **UNIT - V:****Software Reliability And Quality Management and****Computer Aided Software Engineering** | **Lecture 48:** Software Reliability, Statistical Testing**Lecture 49:** Software Quality, Software Quality Management System**Lecture 50,51:**  ISO 9000 SEI Capability Maturity Model.**Lecture 52:** Case and its Scope**Lecture 53:** Case Environment**Lecture 54:** Case Supportin Software Life Cycle**Lecture 55:** Other Characteristics of Case Tools**Lecture 56:** Towards Second Generation CASE Tool**Lecture 58:** Architecture of a Case Environment | 10 |
| **UNIT - VI :****Software Maintenance and Software Reuse** | **Lecture 59:** Software maintenance**Lecture60:** Maintenance Process Models**Lecture 61,:** Maintenance Cost**Lecture62:** Software Configuration Management**Lecture 63:** what can be reused?**Lecture 64:** Why almost No Reuse So Far?**Lecture 65:** Basic Issues in ReuseApproach**Lecture 66:** Reuse at Organization Level | 8 |
|  **Total number of classes required: 66** |

**TEXT BOOKS:**

1. Software engineering A practitioner’s Approach, Roger S. Pressman, Seventh Edition

McGrawHill International Edition.

2. Fundamentals of Software Engineering, Rajib Mall, Third Edition, PHI.

3. Software Engineering, Ian Sommerville, Ninth edition, Pearson education

**Signature of the Faculty Signature of the HOD**