

SE SYLLABUS VR20

UNIT I:

Introduction:

- Software
- Software Myths
- Capability Maturity Model Integration.

Software Process Models:

- Prescriptive process model
- Waterfall Model
- Incremental process model
- Evolutionary process model
- Unified process.

Agile Process Models:

- Agility,
- Agile Process
- Agile Process Models.

UNIT II:

Software Requirements:

- Functional
- Non-Functional requirements
- User requirements
- System Requirements
- Software Requirements Specification Document,

Requirements Engineering:

- Requirements Engineering tasks
- Initiating the Requirements engineering process
- Eliciting Requirements- Developing use cases, Building the Analysis model, Negotiating, Validating Requirements.

UNIT III:

Architectural Design:

- Architectural Styles and Patterns

Design Engineering:

- Design Process and Design Quality
- Design Concepts.

Introduction to UML:

- An Overview of the UML
- A Conceptual Model of UML
- Class Diagrams
- Object Diagrams
- Use Case Diagrams
- Interaction Diagrams
- Activity Diagram
- State Diagrams
- Deployment Diagrams.

UNIT IV:

Testing Strategies:

- A Strategic Approach to Software Testing – Verification and Validation
- Organizing for software testing
- Test Strategies for Conventional software
- Validation Testing
- System Testing
- Art of Debugging

Testing Tactics:

- Software Testing Fundamentals
- Black Box Testing
- White Box Testing
- Basis Path Testing
- Control Structure Testing.