# CS - 13: SAD, Software Quality Assurance and Testing

## UNIT 1: System Analysis & Design AND Software Engineering, Concepts of Quality Assurance

- 1. Systems Analyst.
- 2. Explain: SDLC.
- 3. Explain: Fact finding techniques.
- 4. Explain: DFD.

#### UNIT 2: Basics of Software Testing, Types of Software Testing, Verification and Validation

- 1. Explain: Testing Artifacts.
- 2. Explain: Static & Dynamic Testing.
- 3. Explain: Blackbox, Whitebox & GreyBox Testing.
- 4. What is Non-Functional Testing?

### UNIT 3: Software Development Life Cycle Models, Automated Testing

- 1. Explain: Waterfall Model.
- 2. Explain: Iterative Model.
- 3. Explain: V-Model.
- 4. Explain: Spiral Model.
- 5. Explain: Big Bang Model.
- 6. Explain: Prototyping Model.
- 7. Explain: WinRunner & LoadRunner.

#### UNIT 4: Project Economics, Project scheduling and Tracking

- 1. Explain Concepts of Project Management.
- 2. Explain Empirical Project Estimation Techniques.
- 3. Explain Timeline chart.
- 4. Explain Pert Chart.
- 5. Explain: CoCoMo Model.

### **UNIT 5: CAD Project Management Tool, UML**

- 1. Explain: MS-VISIO.
- 2. Explain: MS-Project.
- 3. Explain UML With Class Diagram, Use Case Diagram & Activity Diagram.