## **SE QUESTION BANK**

#### **UNIT-1**

- 1. Define Software. Explain the characteristics of software compared to Hardware.
- 2. Explain various Software Myths and Reality.
- 3. Brief about evolving role of software?
- 4. Explain Waterfall Model with diagram. State its advantages and disadvantages.
- 5. Discuss software as a layered Technology.
- 6. Explain CMMI Model in detail?
- 7. Explain Spiral Model with Diagram?
- 8. Explain Agile Methodology?
- 9. Explain software development life cycle. Discuss various activities during SDLC.
- 10. Explain about the changing nature of software?

#### **UNIT-2**

- 1. Describe the structure of Software requirements specification document?
- 2. Illustrate with neat diagram about the process of Requirements Elicitation and Analysis?
- 3. Explain Requirement Discovery techniques with examples?
- 4. Explain Functional and Nonfunctional Requirements with example.
- 5. What are Behavioral Models? Explain with suitable example.
- 6. Define Requirements Engineering. Explain the importance of SRS document along with its contents?
- 7. Define Interface specification and its types?
- 8. Write about Requirement validation?
- 9. Explain in detail about Requirement Management?
- 10. Write about User, Domain and System Requirements?
- 11. Define Interface specification and its types

#### . UNIT-3

- 1. Explain Design Engineering and objectives.?
- 2. What is Design and why it is important in software Development Process?
- 3. Explain Design Process and Design Quality?
- 4. Explain cohesion and coupling.
- 5. Explain Software quality guidelines and Quality attributes?
- 6. Write the taxonomy of architectural Design and give a brief description .
- 7. List and explain different kinds of architecture styles and patterns. ?[
- 8. Draw a use case diagram for Movie Booking System.
- 9. Draw a Use Case Diagram for Railway Ticket Booking?
- 10. Explain class Diagram with an example?
- 11. Explain Collaboration Diagram with an example?
- 12. Explain the UML Building Blocks?
- 13.List various diagrams of UML used to represent system modeling.?

### Unit- 4

- 1. Explain about test strategies for conventional software?
- 2. Explain the difference between Black Box and White Box Testing?
- 3. Explain Metrics for Maintenance?
- 4. Explain Metrics for Software quality?
- 5. Explain metrics for software measurement?
- 6. Difference between Alpha and Beta testing?
- 7. Difference between Verification & Validation?
- 8. What is black box testing? What is boundary value Analysis?
- 9. Define unit testing. Explain about unit testing considerations and procedures.
- 10. What is the need of software testing? What are its main objectives and principles?
- 11. Briefly discuss about Integration testing strategies

# Unit-5

- 1. Define Risk. List out the different categories of risks that are likely to encounter when software is built.
- 2. What are Formal Technical Reviews? Explain.
- 3. What is RMMM? Explain various methods followed to mitigate monitor and manage the risks?
- 4. Explain the Process of Risk Projection in detail?
- 5. Explain Software reviews a. Defect Amplification and Removal
  - b. Cost Impact of Software Defects
- 6. Explain about ISO 9000 quality standards in detail.
- 7. Explain about a. software quality assurance (SQA)
  - b. Statistical Software quality assurance (SSAA)
- 8. Explain a. Risk Identification b. Risk Projection c. Risk Refinement
- 9. Explain The Factors That Affect Software Quality.
- 10. Explain Cyclomatic Complexity with an example?