JNTUK R-16 CSE

SOFTWARE ENGINEERING

UNIT-I

SHORT ANSWER TYPE QUESTIONS:

1. Define software system?
2. **What is software crisis?**
3. **What is meant by MYTH?**
4. What are the characteristics of Software and Hardware?
5. **Define Software engineering?**
6. **What is Agile process model?**
7. What are the phases of SDLC?
8. What is RUP model?

LONG ANSWER TYPE QUESTIONS:

1. **What is Software engineering? What are the challenges of Software engineering?**
2. **Explain briefly Software development life cycle (SDLC)?**

   OR

   Prescriptive software process model?
3. **What are the various Software Myths and explain briefly?**
4. **What is the nature of Software?**
5. **Explain briefly Rational Unified Process (RUP) model?**
6. **Explain briefly unique nature of WEB Apps?**
7. What the evolution of various software engineering methodologies?
8. Explain briefly Water fall model advantages and limitations?
9. Explain briefly Spiral model?
10. Explain briefly Client server software engineering?

UNIT-II

SHORT ANSWER TYPE QUESTIONS:

1. **What is SRS?**
2. **Define Cohesion?**
3. **Define Coupling?**
4. **What is modularity?**
5. What is requirement engineering process?
6. **What is JAD?**
7. **What is brain storming?**
8. What is E-R diagram?
9. **What is Abstraction?**
10. **What is Prototyping analysis?**

LONG ANSWER TYPE QUESTIONS:

1. **What is the Requirement engineering process? Explain its various aspects?**
2. Explain briefly Requirement analysis?
3. **Explain briefly structure of SRS?**
4. What are the characteristics of Design?
5. **Explain briefly Cohesion and Coupling?**
6. Explain briefly Overview of Design process?
7. Explain briefly Layered arrangement modules with neat sketch?

UNIT-III

SHORT ANSWER TYPE QUESTIONS:

1. **What is meant by Data dictionary?**
2. **What is DFD?**
3. What is GUI?
4. What is UML?
5. **What is Window Control (Widgets)?**

LONG ANSWER TYPE QUESTIONS:

1. **What is the purpose of function-oriented software design? Explain SA/SD approaches of function-oriented design?**
2. What is structured analysis? Explain the structured analysis method by taking suitable examples?
3. **What is Data flow diagram (DFD)? And explain briefly DFD with neat sketch?**
4. **Explain briefly OOD (object oriented design)?**
5. **What are the good characteristics of User interface design (UID)?**
6. What are types of User interface? And explain briefly?
7. Explain the importance of User interface design (UID)?

UNIT-IV

SHORT ANSWER TYPE QUESTIONS:

1. **What is debugging?**
2. **What is BVA?**
3. What is Cause effect graph?
4. What are test stubs and test drivers?
5. **What is test case?**
6. Define error, bug, and fault?
7. **What is Error guessing?**

LONG ANSWER TYPE QUESTIONS:

1. **What are the coding principles with suitable examples?**
2. What is code review? Explain various methods of code review?
3. What are the advantages of documentation? What are the various types of documentation done in the system?
4. **What is meant by testing? And what are the different testing strategies (unit testing, integration testing, system testing?**
5. **Differentiate between Black box testing and White box testing?**
6. **What is debugging? Explain various debugging approaches?**
7. **Write a short notes on Black box testing techniques**
   (a) Equivalence class partitioning (b) BVA (c) Cause effect graph
8. **Write short notes on White box testing techniques**
   (a) Control flow graph (b) cycloramic complexity (c) independent path

UNIT-V

SHORT ANSWER TYPE QUESTIONS:

1. **Define software reliability?**
2. What are the reliability metrics?
3. Define CASE tools?
4. What is SQM?
5. **What is the purpose of SQA?**
6. **What is six sigma?**
7. What are the CMM levels?
8. What is ISO standard?

LONG ANSWER TYPE QUESTIONS:

1. **Define software reliability? And explain the following reliability metrics with examples?**
   (a) MTBF (b) MTTF (c) MTTR
2. What is statistical testing? How it is performed?
3. **Define Software Quality? And what are the various software quality factors? Explain each factor with suitable examples?**
4. **Explain the process-based quality management system approach of ISO: 9000 standard?**
5. **What is CMM? What are the levels of CMM model?**
6. What is CASE? Explain its scope?
7. What are the advantages and limitations of CASE tools?
8. **Discuss various tools of CASE environment?**
9. What are the characteristics of CASE tools?
10. What are the key components of CASE architecture?

UNIT-VI

SHORT ANSWER TYPE QUESTIONS:

1. Define software maintenance?
2. What is legacy system?
3. **What is forward engineering?**
4. **What is reverse engineering?**
5. **What is reengineering**?
6. What is configuration change control?
7. What is software reuse? What can be reused?

LONG ANSWER TYPE QUESTIONS:

1. **Explain briefly Software configuration management (SCM)?**
2. What are the benefits and limitations of reuse based development?
3. What are the basic issues in reuse approach?