

**QuestionBank**

**Unit – 1 Software Quality & Significance of Testing**

1.	Define the following terms <ul style="list-style-type: none"><li>• Software Quality</li><li>• Software Reliability</li><li>• Testing</li><li>• Debugging</li></ul>
2.	Draw the Ishikawa diagram and explain it.
3.	What is total quality management (TQM)? What is the difference between TQM and TQC?
4.	Explain the difference between validation and verification.
5.	What is a test case? Explain the testcases with example for stateless and stateoriented systems.
6.	List the objectives of testing.
7.	List the levels of testing.
8.	What are the major sources of information for selecting test cases? Explain them briefly.
9.	What is white box and black box testing?
10.	Explain Test Driven Development(TDD).
11.	What is Unit testing? What are the major objectives in unit testing?
12.	What is Static unit testing? Draw the diagram and explain the major steps of static unit testing.
13.	What is Dynamic unit testing? Draw the diagram and explain the concept of test driver and stub.
14.	What is Mutation Testing? Explain with example.
15.	What is Debugging? List and explain the major approaches of debugging.

**Unit – 2 Control Flow and Data Flow Testing**

1.	Define following term <ul style="list-style-type: none"><li>• Control flow graph</li><li>• Data flow testing</li><li>• Data flow anomalies</li><li>• Global C use</li><li>• Def-Clear Path</li><li>• Complete path</li></ul>
2.	State the Difference between static data flow testing vs Dynamic dataflow testing.
3.	Explain the process of generating test input data.
4.	List and explain any one path selection criteria with example.
5.	Explain data flow terminologies with example.

**Unit – 3 System Integration Testing and Functional Testing**

1.	What is meant by an Interface error? List any two types of interface errors.
2.	List different system integration techniques and explain Top down integration.
3.	What is meant by hardware and software integration?
4.	Explain the template for system integration test plan. (SIT plan)

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5.	What is meant by Functional testing?
6.	Differentiate between White Box and Black Box testing.
7.	Explain equivalence class partitioning and list the major advantages in using it.
8.	Explain Boundary value analysis.
9.	Explain Decision Tables.
10.	What is Pairwise Testing ? Explain with example.

**Unit 4: System Test Design, Planning & Automation**

1.	Explain Test design Factor
2.	Explain Types of maintenance with example
3.	Explain stat transition diagram for requirement identification
4.	List and explain characteristics testable requirement.
5.	Explain state transition diagram for test case.
6.	Explain state transition diagram for test result.
7.	Write a note on system test plan.
8.	Explain the process of computing function point.
9.	List the benefits of system test automation
10.	Explain the characteristics of Automation test cases

**Unit – 5 System Test Execution & Acceptance Testing**

1.	Explain the life cycle of a defect. What is meant by priority and severity of a defect?
2.	What metrics are prepared for monitoring test execution?
3.	What metrics are prepared for monitoring defect reports?
4.	What is Orthogonal defect classification?
5.	Explain defect causal analysis.
6.	Explain beta testing.
7.	List out First Customer Shipment Rediness Crietria
8.	What is spoilage metric? Explain it with example.
9.	Explain the types of acceptance testing.
10.	List three major objectives of acceptance testing. List any six acceptance criteria.

**Unit – 6 Software Quality Assurance**

1.	Explain types of views using which we can define quality.
2.	Explain the Garvin's Quality Dimensions.
3.	Explain the McCall's Quality Factors.
4.	Define Software Quality Assurance.
5.	Explain the elements of SQA.
6.	What are the major goals,attributes of SQA?
7.	Explain structure for an SQA plan.
8.	What is Six Sigma methodology for software engineering?