

MCA DEPARTMENT



QUESTION BANK

For

SOFTWARE TESTING (16MCA311)

Regulation – 2016

Academic Year 2019 – 20

Prepared by

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SREENIVASA INSTITUTE OF TECHNOLOGY AND MANAGEMENT STUDIES.
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UNIT - 1 : Introduction & The Taxonomy of Bugs		
Purpose of testing – Some Dichotomies – A Model for testing – The Consequences of bugs – A Taxonomy of bugs		
PART -A		
Q.No.	Questions	Blooms Taxonomy Level
1	Distinguish between Testing and Debugging	Analyzing
2	List out the goals of Testing	Remembering
3	Identify the 5 Testers Mental Life phases	Analyzing
4	Name the Dichotomies	Remembering
5	Write about Requirements and specification Bugs	Understanding
6	Explain Control Bugs	Understanding
7	write about importance of bugs	Understanding
PART -B		
1	Explain the purpose of Testing in detail	Understanding
2	Discuss various Testing Dichotomies'	Knowledge
3	Represent the Model for Testing	Understanding
4	Interpret a model for testing and understand the process of testing.	Analyzing
5	Classify the bugs into different categories.	Remembering
6	Explain any 4 types of bugs in detail	Understanding
7	Describe any two Dichotomies	Understanding
UNIT II - :Flow graphs and Path testing		
Path Testing Basics – Predicates, Path Predicates and Achievable Paths - Path sensitizing-Path instrumentation - Application of path testing.		
PART -A		
1.	What is Path Testing	Understanding
2.	Define Control Graph	Understanding
3.	List out the Control flowgraph elements	Remembering
4.	Name different kinds of loops for testing	Remembering
5.	Define predicate	Understanding
6.	List out the Blindness	Remembering
7.	What is path Sensitization	Understanding
8.	Define path Instrumentation	Understanding
PART -B		
1.	Briefly Explain the concept of Path Testing	Understanding
2.	What is Control Flowgraph and explain its elements in detail	Understanding
3.	Identify the components of a control flow graph and compare the same with a flowchart.	Evaluating
4.	Describe the path selection criteria and path testing strategies	Understanding
5.	Classify the predicates and variables as dependant/independant and correlated/uncorrelated.	Remembering
6.	Understand the path sensitizing method and classify whether the	Understanding



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	path is achievable or not.	
7.	Identify the problem due to co-incidental correctness and choose a path instrumentation method to overcome the problem.	Evaluating
8.	Explain path Testing and its Applications	Understanding
UNIT III -Dataflow Testing & Paths, Path products and Regular expressions		
Dataflow Testing Basics – Data flow testing strategies. Path products & path expression – A Reduction Procedure- Applications - Regular Expressions & Flow Anomaly Detection		
PART – A		
1.	Define Data Flow Testing	Understanding
2.	List out Data Object State and Usage	Remembering
3.	How to denote the anomaly in two character sequence actions	Evaluating
4.	Name two types of Data Flow Anomaly State graphs	Remembering
5.	Name any 4 Data Flow Testing Strategies	Remembering
6.	Define Path Products, Path Expressions and Path sum	Understanding
7.	Purpose of Node Reduction Algorithm	Analyzing
8.	Identify the applications of Node Reduction Algorithm	Evaluating
PART –B		
1.	What is Data flow Testing and Explain different states of Data Objects in detail	Understanding
2.	Discuss Data Flow Anamolies in detail	Understanding
3.	Explain the Data Flow Anomaly State Graph in detail	Understanding
4.	Compare and analyze various strategies of data flow testing.	Analyzing
5.	Describe the Node Reduction Algorithm with an Example	Evaluating
6.	Identify and Explain various Applications of Node reduction Algorithm	Evaluating
7.	Discuss the Regular Expresson and flow anomaly Detection	Understanding
UNIT IV - Logic Based Testing & State, State Graphs and Transition testing		
Motivational Overview - Decision tables - Path expressions again - KV Charts – Specifications. State Graphs - Good State Graphs and bad - State Testing.		
PART – A		
1.	What is Decision Table	Understanding
2.	List out the four areas of Decision Table	Remembering
3.	When do we say that the specifications are complete and consistent	Understanding
4.	Purpose of KV Charts	Analyzing
5.	What is State Graph	Understanding
6.	Define good and Bad State graphs	Understanding
7.	What is State Testing	Understanding
PART –B		
1.	What is logic based testing and explain decision table with example	Understanding
2.	Explain how decision table as a basis for test case design	Applying
3.	Purpose of KV Chart and explain it with 2 and 3 variables	Analyzing
4.	Explain how to transform specifications into sentences and	Understanding



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	map them into KV charts.	
5.	Explain State graphs with an example	Understanding
6.	Discuss good and bad graphs in detail	Understanding
7.	Explain state testing in detail	Understanding
UNIT V - Graph Matrices and its Application & Testing Tools		
Motivational overview – The Matrix of a Graph – Relations – The Powers of a Matrix - Node Reduction Algorithm - Building Tools. Manual testing and its Limitations - Need for Automated Testing Tools - Taxonomy of Testing Tools, Win Runner – Load Runner.		
PART –A		
1.	Define Graph Matrix	Understanding
2.	List out the types of Relations	Remembering
3.	Distinguish between manual and Automated Testing Tools	Analyzing
4.	Name any two Testing Tools	Remembering
5.	Purpose of WinRunner	Evaluating
6.	Procedure to record and test a testcase in winrunner	Understanding
7.	Purpose of LoadRunner	Evaluating
PART –B		
1.	Explain Graph Matrix and its Powers	Understanding
2.	Discuss the applications of Node Reduction algorithm	Understanding
3.	Classify and analyze different testing tools available in market	Analyzing
4.	Write short notes on building Tools	Understanding
5.	Discuss the Manual Testing , its limitations and need for automated Testing tools	Understanding
6.	Briefly Explain winrunner and its functionalities	Understanding
7.	Explain the purpose of LoadRunner	Understanding