### 15BECS7E04 SOFTWARE TESTING

#### **INTENDED OUTCOMES:**

- To make students understand the principles of software testing
- To explain the basics of software testing
- To highlight the strategies for software testing
- To stress the need and conduct of testing levels
- To identify the issues in testing management
- To bring out the ways and means of controlling and monitoring testing activity

#### **UNIT-I INTRODUCTION**

Testing as an Engineering Activity- Role of Process in Software Quality-Testing as a Process-Basic Definitions- Software Testing Principles- The Tester's Role in a Software Development Organization-Origins of Defects- Defect Classes- The Defect Repository and Test Design- Defect Examples-Developer/Tester Support for Developing a Defect Repository

#### **UNIT -II TEST CASE DESIGN**

Introduction to Testing Design Strategies, The Smarter Tester- Test Case Design Strategies-Using Black Box Approach to Test Case Design-Random Testing- Equivalence Class Partitioning, Boundary Value Analysis- Other Black-box Test Design Approaches- Black-box testing and COTS- Using White-Box Approach to Test design- Test Adequacy Criteria-Coverage and Control Flow Graphs- Covering Code Logic- Paths: Their Role in White-box Based Test Design- Additional White Box Test Design Approaches- Evaluating Test Adequacy Criteria

#### UNIT-III LEVELS OF TESTING

The Need for Levels of Testing- Unit Test- Unit Test Planning- Designing the Unit Tests- The Class as a Testable Unit- The Test Harness- Running the Unit tests and Recording results-Integration tests-Designing Integration Tests- Integration Test Planning- System Test – The Different Types-Regression Testing-Alpha- Beta and Acceptance Tests

#### UNIT- IV TEST MANAGEMENT

Introductory Concepts- Testing and Debugging Goals and Policies- Test Planning- Test Plan Components-Test Plan Attachments- Locating Test Items-

Reporting Test Results- The role of three groups in Test Planning and Policy Development- Process and the Engineering Disciplines- Introducing the test specialist- Skills needed by a test specialist- Building a Testing Group

## UNIT- V CONTROLLING AND MONITORING

Defining Terms-Measurements and Milestones for Controlling and Monitoring- Status Meetings- Reports and Control Issues- Criteria for Test Completion-SCM- Types of reviews-Developing a review program-Components of Review Plans- Reporting review results

## **TEXT BOOKS:**

S.NO	Author(s) Name	Title of the book	Publisher	Year of publication
1	Ilene Burnstein	"Practical	Springer	2003
		Software Testing"	International	
			Edition, Chennai	

## **REFERENCE BOOKS:**

S.NO	Author(s) Name	Title of the book	Publisher	Year of publication
1	Edward Kit	"Software Testing in the	Pearson	1995
		Real World – Improving	Education, New	
		the Process"	Delhi	
2	Elfriede Dustin	"Effective Software	Pearson	2003
		Testing"	Education New	
			Delhi	
3	Renu Rajani and	"Software Testing -	Tata McGraw-	2003
	Pradeep Oak	Effective Methods, Tools and Techniques"	Hill, New Delhi	



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## KARPAGAM UNIVERSITY

# Faculty of Engineering Department of Computer Science and Engineering

## **Lecture Plan**

Subject code: 16BECS801

Subject Name : Software Testing Class : IV-BE-CSE

S.No	Description of Portion to be Covered		Page no. of Text book	Teaching Aids
1	Fundamentals: Discussion on software enginering	1	R[4]	ВВ
2	Introduction to Software Testing	1		BB
	UNIT- I INTRODUCT	ION		
3	1.1.Testing as an Engineering Activity-Role of Process in Software Quality	1	R[1] Page no 1-6	ВВ
4	1.2.Testing as a Process-Basic Definitions	1	R[1] Page no 6-8 19-25	ВВ
5	1.3.Software Testing Principles	1	R[1] Page no 26-33	ВВ
6	<b>Tutorial 1:</b> Importance of Testing in software quality	1		PPT
7	1.4.The Tester's Role in a Software Development Organization	1	R[1] Page no 34-36	ВВ
8	1.5.Origins of Defects- Defect Classes- The Defect Repository and Test Design	1	R[1] Page no 43-51	ВВ
9	1.6.Defect Examples-Developer/Tester Support for Developing a Defect Repository	1	R[1] Page no 51-57	ВВ

10	<b>Tutorial 2:</b> Types of Defects	1		PPT			
	UNIT- II TEST CASE DESIGN						
11	2.1. Introduction to Testing Design Strategies, The Smarter Tester- Test Case Design Strategies	1	R[1] Page no 61-65	ВВ			
12	2.2. Using Black Box Approach to Test Case Design- Random Testing- Equivalence Class Partitioning, Boundary Value Analysis	1	R[1] Page no 66-75	ВВ			
13	2.3. Other Black-box Test Design Approaches- Black-box testing and COTS	1	R[1] Page no 76-87	ВВ			
14	<b>Tutorial 3:</b> Case study on Black box testing strategies	1		PPT			
15	2.4. Using White-Box Approach to Test design- Test Adequacy Criteria-Coverage and Control Flow Graphs	1	R[1] Page no 97-102	PPT			
16	2.5. Covering Code Logic- Paths:Their Role in White-box Based Test Design	1	R[1] Page no 103-110	BB			
17	2.6. Additional White Box Test Design Approaches- Evaluating Test Adequacy Criteria	1	R[1] Page no 111-123	ВВ			
18	<b>Tutorial 4:</b> Case study on white box testing strategies	1		PPT			
	UNIT -III LEVELS OF TE	ESTIN	G				
19	3.1. The Need for Levels of Testing- Unit Test- Unit Test Planning	1	R[1] Page no 133-140	ВВ			
20	3.2. Designing the Unit Tests- The Class as a Testable Unit	1	R[1] Page no 141-147	PPT			
21	3.3.The Test Harness- Running the Unit tests and Recording results	1	R[1] Page no 148-151	BB			
22	<b>Tutorial 5:</b> Unit test real world examples	1		PPT			

23	3.4.Integration tests-Designing Integration Tests	1	R[1] Page no 152-161	ВВ
24	3.5. Integration Test Planning	1	R[1] Page no 162-163	ВВ
25	3.6.System Test – The Different Types	1	R[1] Page no 163-175	ВВ
26	<b>Tutorial 6:</b> Integration test examples	1		PPT
27	3.7.Regression Testing- Alpha- Beta and Acceptance Tests	1	R[1] Page no 176-178	ВВ
	UNIT- IV TEST MANAGI	EMEN	T	
28	4.1. Introductory Concepts- Testing and Debugging Goals and Policies	1	R[1] Page no 189-196	ВВ
29	4.2. Test Planning- Test Plan Components- Test Plan Attachments	1	R[1] Page no 197-220	
30	Tutorial 7: Test plan sample	1		PPT
31	4.3. Locating Test Items-Reporting Test Results	1	R[1] Page no 221-225	ВВ
32	4.4. The role of three groups in Test Planning and Policy Development	1	R[1] Page no 226-229	ВВ
33	4.5. Process and the Engineering Disciplines	1	R[1] Page no 230-231	PPT
34	<b>Tutorial 8:</b> Sample Test Report	1		PPT
35	4.6. Introducing the test specialist- Skills needed by a test specialist	1	R[1] Page no 235-239	ВВ
36	4.7. Building a Testing Group		R[1] Page no 241-242	ВВ
	UNIT- V CONTROLLING AND	MON	ITORING	
37	5.1.Defining Terms-Measurements and Milestones for Controlling and Monitoring	1	R[1] Page no 263-282	BB
38	Tutorial 9: Metrics in Testing domain	1		PPT

39	5.2. Status Meetings-Reports and Control Issues	1	R[1] Page no 283-288	ВВ
40	5.3.Criteria for Test Completion	1	R[1] Page no 289-291	ВВ
41	41 5.4. SCM		R[1] Page no 292-295	PPT
42	<b>Tutorial 10:</b> Diffetence between allocation methods	1		PPT
43	5.5. Types of reviews-Developing a review program	1	R[1] Page no 307-313	BB
44	5.6. Components of Review Plans- Reporting review results	1	R[1] Page no 314-336	BB
	FUNDAMENTALS	2		
	TOTAL LECTURE HO	3   32		
	TOTAL TUTORIAL HO	10		
	TOTAL HO	44		

## REFERENCES

1	Ilene Burnstein, "Practical Software Testing" Springer International Edition,
1	Chennai
2	Edward Kit, "Software Testing in the Real World – Improving the Process" Pearson
	Education, New Delhi
3	Elfriede Dustin, "Effective Software Testing" Pearson Education New Delhi
4	Renu Rajani and Pradeep Oak, "Software Testing – Effective Methods, Tools and Techniques" Tata McGraw-Hill, New Delhi

Staff In-Charge HOD/CSE

# **Online Questions**

# <u>Unit-I</u>

Questions	opt1	opt2	opt3	opt4	opt5	opt6	Answers
	Checking that we	Checking that we	Performed by an	Making sure			Checking that
	are building the	are building the	independent test	that it is what			we are building
	right system	system right	team	the user really			the system right
Verification is:				wants			
A regression test:	Will always be	Will help ensure	Will help ensure	Can only be run			Will help
	automated	unchanged areas	changed areas of	during user			ensure
		of the software	the software have	acceptance			unchanged
		have not been	not been affected	testing			areas of the
		affected					software have
							not been
							affected
If an expected result is not specified	We cannot run	It may be difficult	It may be difficult	We cannot			It may be
then:	the test	to repeat the test	to determine if	automate the			difficult to
			the test has	user inputs			determine if the
			passed or failed				test has passed
							or failed
Which of the following could be a	Testing fault	1,2,3,4 are valid	1,2,3 are valid	All of them are			All of them are
reason for a failure?		reasons; 5 is not	reasons; 4 & 5 are	valid reasons for			valid reasons
			not	failure			for failure
Test are prioritized so that:	You shorten the	You do the best	You do more	You find more			You do the best
	time required for	testing in the time	effective testing	faults			testing in the
	testing	available					time available
Which of the following is not a static	Error guessing	Walkthrough	Data flow	Inspections			Error guessing
testing technique			analysis				
Which of the following statements	Component	Component	Component	Component			Component
about component testing is not true?	testing should be	testing is also	testing should	testing does not			testing does not
	performed by	know as isolation	have completion	involve			involve
	development	or module testing	criteria planned	regression			regression
				testing			testing

During which test activity could faults be found most cost effectively?	Execution	Design	Planning	Check Exit criteria completion	Planning
Which, in general, is the least required skill of a good tester?	Being diplomatic	Able to write software	Having good attention to detail	Able to be relied on	Able to write software
The purpose of requirement phase is	To freeze requirements	To understand user needs	To define the scope of testing	All of the above	All of the above
The process starting with the terminal modules is called –	Top-down integration	Bottom-up integration	None of the above	Module integration	Bottom-up integration
The inputs for developing a test plan are taken from	Project plan	Business plan	Support plan	None of the above	Project plan
Function/Test matrix is a type of	Interim Test report	Final test report	Project status report	Management report	Project status report
Defect Management process does not include	Defect prevention	Deliverable base- lining	Management reporting	None of the above	Deliverable base-lining
What is the difference between testing software developed by contractor outside your country, versus testing software developed by a contractor within your country?	Does not meet people needs	Cultural difference	Loss of control over reallocation of resources	Relinquishments of control	Cultural difference
Software testing accounts to what percent of software development costs?	20-Oct	40-50	70-80	10-May	40-50
A reliable system will be one that:	Is unlikely to be completed on schedule	Is unlikely to cause a failure	Is likely to be fault-free	Is likely to be liked by the users	Is unlikely to cause a failure
How much testing is enough	This question is impossible to answer	The answer depends on the risks for your industry, contract and special requirements	The answer depends on the maturity of your developers	The answer should be standardized for the software development industry	The answer depends on the risks for your industry, contract and special requirements
Which of the following is not a characteristic for Testability?	Operability	Observability	Simplicity	Robustness	Robustness

Cyclomatic Complexity method comes under which testing method.	White box	Black box	Green box	Yellow box	White box
Which of these can be successfully tested using Loop Testing methodology?	Simple Loops	Nested Loops	Concatenated Loops	All of the above	All of the above
To test a function, the programmer has to write a, which calls the function and passes it test data.	Stub	Driver	Proxy	None of the above	Driver
Equivalence partitioning is:	A black box testing technique used only by developers	A black box testing technique than can only be used during system testing	A black box testing technique appropriate to all levels of testing	A white box testing technique appropriate for component testing	A black box testing technique appropriate to all levels of testing
When a new testing tool is purchased, it should be used first by:	A small team to establish the best way to use the tool	Everyone who may eventually have some use for the tool	The independent testing team	The vendor contractor to write the initial scripts	A small team to establish the best way to use the tool
Inspections can find all the following except	Variables not defined in the code	Spelling and grammar faults in the documents	Requirements that have been omitted from the design documents	How much of the code has been covered	How much of the code has been covered
Software Debugging is a set of activities that can be planned in advance and conducted systematically.	TRUE	FALSE	none of these	any one	FALSE
Which of the following is not a software testing generic characteristics?	Different testing techniques are appropriate at different points in time	Testing is conducted by the developer of the software or an independent test group	Testing and debugging are different activities, but debugging must be accommodated in any testing strategy	None of the mentioned	Different testing techniques are appropriate at different points in time
ITG stands for	instantaneous test group	integration testing group	individual testing group	independent test group	independent test group

By collecting during software testing, it is possible to develop meaningful guidelines to halt the testing process.	Failure intensity	Testing time	Metrics	All of the mentioned	Metrics
Which of the following issues must be addressed if a successful software testing strategy is to be implemented?	Use effective formal technical reviews as a filter prior to testing	Develop a testing plan that emphasizes "rapid cycle testing."	State testing objectives explicitly	All of the mentioned	All of the mentioned
Test cases should uncover errors like	Nonexistent loop termination	Comparison of different data types	Incorrect logical operators or precedence	All of the mentioned	Nonexistent loop termination
Which of the following errors should not be tested when error handling is evaluated?	Error description is unintelligible	Error noted does not correspond to error encountered	Error condition causes system intervention prior to error handling	Error description provide enough information to assist in the location of the cause of the error	Error description is unintelligible
What is normally considered as an adjunct to the coding step	Integration testing	Unit testing	Completion of Testing	Regression Testing	Unit testing
Which of the following is not regression test case?	A representative sample of tests that will exercise all software functions	Additional tests that focus on software functions that are likely to be affected by the change	Tests that focus on the software components that have been changed	Low-level components are combined into clusters that perform a specific software sub- function	Low-level components are combined into clusters that perform a specific software sub- function
Which testing is an integration testing approach that is commonly used when "shrink-wrapped" software products are being developed?	Regression Testing	Integration testing	Smoke testing	Validation testing	Smoke testing
Defects are less costly if detected in which of the following phases	Coding	Design	Requirements Gathering	Implementation	Requirements Gathering

User Acceptance testing is	White box testing	Black box testing	Gray box testing	None of the above	Black box testing
Error guessing is a	Test verification techniques	Test execution techniques	Test control management techniques	Test data management technique	Test data management technique
Histogram refers to	Bar chart	Run chart	Pareto diagram	Correlation diagram	Bar chart
Pareto principle advocates	20-80 rule	80-20 rule	40-60 rule	60-40 rule	80-20 rule
Which one is not Structural Testing?	Regression	Parallel	Acceptance	Stress	Acceptance
Testing comes under which category of cost of quality?	Preventive	Appraisal	Failure	None of the above	Appraisal
Which of the following is not true about Incremental testing?	Top-Down approach can be used	Use of stubs or drivers are required	All modules need to be completed prior to testing	Bottom – up approach is also possible	All modules need to be completed prior to testing
Which of the following is not a part of test plan?	Scope	Mission	Objective	Risk	Mission
Which one is not Statistical Tool?	Cause and effect Graphing	Stratification	Run Chart	Regression Analysis	Cause and effect Graphing
The 'v' represent the following term:	Verification and validation	Static testing and Dynamic testing	Black box testing and white box testing	Software development process and software testing process	Software development process and software testing process
Function point is a measure of	Effort	Complexity	Usability	Size	Size
You are told to prepare a report on the most commonly occurring product defects. You review the software defect reports, which categories the defects of coding errors, requirement errors, documentation errors, etc. The best tool to report this information is	A histogram	A pareto diagram	A cause and effect diagram	A scatter plot	A histogram
A statistical technique to assess, monitor and maintain the stability of a process is	Pareto chart	Control chart	Run chart	Histogram	Control chart

The two types of incremental testing approaches are top down and bottom up approach.	TRUE	FALSE	none of these	any one	TRUE
If the measurement taken by the two people are same refers to the terms as	Reliability	Validity	Calibration	Ease of use and simplicity	Reliability
Test Readiness review is conducted by the	Project manager	Test manager	Quality assurance personnel	User/Customer	Test manager
You are performing a test to see that it complies with the user requirement that a certain field be populated by using a drop down box containing a list of values. What kind of testing are you doing?	White box testing	Black box testing	Load testing	Regression testing	Black box testing
Which is the reputed testing standard?	M Bridge awards	QAI	ISO	Microsoft	ISO
Configuration Management Plan describes the Configuration Management procedures and structures to be used.	TRUE	FALSE			TRUE
This type of testing method attempts to find incorrect or missing functions, errors in data structures or external database access, interface errors, Performance errors and initialization and Termination errors. It is called as	White Box Testing	Grey Box Testing	Black Box Testing	Open Box Testing	Black Box Testing
Phase Definition. It will come under	CMM Level 1	CMM Level 2	None	any one	CMM Level 2
Software testing which is done without planning and Documentation is known as	adHoc Testing	Unit Testing	Regression testing	Functional testing.	adHoc Testing
Acceptance testing is known as	Beta Testing	Greybox testing	Test Automation	White box testing	Beta Testing
Retesting the entire application after a change has been made called as?	Full Regression Testing	Unit Regression	Regional Regression	Retesting	Full Regression Testing

# <u>Unit-II</u>

Questions	opt1	opt2	opt3	opt4	opt5	opt6	Answers
It measures the quality of a productIt is a specific part of the QA procedure, It is a corrective process,It applies for particular product & Deals	Validation	Verification	Quality Assurance	Quality Control			Quality Control
with the product.							
What are the Types of Integration Testing?	Big Bang Testing	Bottom Up Testing	Top Down Testing	All the above			All the above
Product Risk affects The quality or performance of the software.	TRUE	FALSE					TRUE
A metric used to measure the characteristic of documentation and code called as	Process metric	Product Metric	Test metrics	none of these			Product Metric
Which is non-functional software testing?	Unit Testing	Block box testing	Performance Testing	Regression testing			Performance Testing
The process that deals with the technical and management issues of software development called as?	Delivery Process	Testing Process	Software Process	all the above			Software Process
Which is Black-Box Testing method?	equivalence partitioning	code coverage	fault injection	none of these			equivalence partitioning
Business Risk affects The Organization developing or Procuring the software.	TRUE	FALSE	none	all the above			TRUE
Automation Testing should be done before starting Manual testing. Is the above statement correct?	Yes	No	may be yes	none of these			No
Earlier a defect is found the cheaper it is to fix it.Is the	Yes	No					Yes

above statement correct?					
Informing to the developer which bug to be fix first is called as	Severity	Priority	Fix ability	Traceability	Priority
The approach/document used to make sure all the requirements are covered when writing test cases	Test Matrix	Checklist	Test bed	Traceablity Matrix	Traceablity Matrix
Executing the same test case by giving the number of inputs on same build called as	Regression Testing	ReTesting	Ad hoc Testin	Sanity Testing	ReTesting
Control Charts is a statistical technique to assess, monitor, and maintain the stability of a process.	TRUE	FALSE			TRUE
To check whether we are developing the right product according to the customer requirements are not. It is a static process	Validation	Verification	Quality Assurance	Quality Control	Verification
To check whether we have developed the product according to the customer requirements r not. It is a Dynamic process.	Validation	Verification	Quality Assurance	Quality Control	Validation
Staff development plan describes how the skills and experience of the project team members will be developed.	TRUE	FALSE			TRUE
It is a set of levels that defines a testing maturity hieraecy	TIM (Testing Improving Model)	TMM (Testing Maturity Model)	TQM(Total Quality Management)	all the above	TMM (Testing Maturity Model)

A Non-Functional Software testing done to check if the user interface is easy to use and understand	Usability Testing	Security Testing	Unit testing	Block Box Testing	Usability Testing
The review and approved document (i.e. Test plan, System Requirement Specification's) is called as	Delivery Document	Baseline Document	Checklist	none of these	Baseline Document
What are the Testing Levels?	Unit Testing	Integration Testing	System Testing and Acceptance Testing.	All the above	All the above
Cost of quality = Prevention Cost + Appraisal cost + Failure cost	TRUE	FALSE			TRUE
A useful tool to visualize, clarify, link, identify, and classify possible cause of a problem. This is also called as "fishbone diagram" what is this?	Pareto Analysis	Cause-and- Effect Diagram	all the above	none of these	Cause-and- Effect Diagram
It measures the quality of processes used to create a quality product. It is a system of management activities, It is a preventive process, It applies for entire life cycle & Deals with Process.	Validation	Verification	Quality Assurance	Quality Control	Quality Assurance
Variance from product specifications is called?	Report	Requirement	Defect	all the above	Defect
Verification is	Process based	Product based	none	all the above	Process based
White box testing is not called as	Glass box testing	Closed box testing	OPen box testing	Clear box testing	Closed box testing

Name the events that will be analyzed, Count the named incidents, Rank the count by frequency using a bar chart & Validate reasonableness of the analysis is called as	Pareto Analysis	Cause and Effect Diagram	SWOT Analysis	Pie Charts	Pareto Analysis
Retesting of a single program or component after a change has been made?	Full Regression Testing	Unit Regression	Regional Regression	Retesting	Unit Regression
Requirement and Analysis, Design, Development or Coding, Testing and Maintenance is called as Software Development Life Cycle (SDLC)	TRUE	FALSE			TRUE
A Plan to overcome the risk called as	Migration Plan	Master plan	Maintenance plan	Mitigation Plan	Mitigation Plan
Beta testing will be done at	User place	Developers place	all the above	none of these	User place
Unit Testing will be done by	Testers	End Users	Customer	Developers	Developers
Optimization, Defect Prevention, and Quality Control. Its come under the	CMM Level 2	CMM Level 3	CMM Level 4	CMM Level5	CMM Level
can be used to design good test cases.	Equivalence Classes	Parameterizing	Boundary Values	trimming	a or c
By applying we minimize the redundant test cases.	Equivalence Partioning	Parameterizing	Boundary Values	trimming	Equivalence Partioning
test cases are like a green light for the application and help to determine whether or not the application should go into production.	System	Acceptance	Critical	Performance	Acceptance
In order to write black box test cases we need the	requirement document	design	project plan	All of above	All of above

a series of test cases that have a high likelihood of finding errors	requirement document	software testing techniques	project plan	SRS	te	oftware esting echniques
White-box testing, sometimes called, is a test case design method that uses the control structure of the procedural design to derive test cases.	gray box testing	glass-box testing	steel-box testing	Coding testing		lass-box esting
In order to generate effective tests at a lower cost, test designers analyze the following sources of information:	Requirements and functional specifications	Source code	All of above	Operational profile	A	ll of above
Methodologies adopted while performing Maintenance Testing	Breadth Test and Depth Test	Retesting	Confirmation Testing	Sanity Testing	ar	readth Test nd Depth est
Which of the following is true about Formal Review or Inspection:- i. Led by Trained Moderator (not the author). ii. No Pre Meeting Preparations		i,iii,iv are true and ii is false				iii,iv are true nd ii is false
iii. Formal Follow up process. iv. Main Objective is to find defects	ii is true and i,iii,iv are false		i,iii,iv are false and ii is true	iii is true and i,ii,iv are false		
White Box Techniques are also called as :-	Structural Testing	Design Based Testing	Error Guessing Technique	Experience Based Technique		tructural esting
What is an equivalence partition (also known as an equivalence class.?	A set of test cases for testing classes of objects	An input or output range of values such that only one value in the	An input or output range of values such that each value in	An input or output range of values such that every tenth value in	or of th	n input or utput range f values such at only one alue in the

		range becomes a test case	the range becomes a test case	the range becomes a test case	range becomes a test case
The Test Cases Derived from use cases	Are most useful in uncovering defects in the process flows during real world use of the system	Are most useful in uncovering defects in the process flows during the testing use of the system	Are most useful in covering the defects in the process flows during real world use of the system	Are most useful in covering the defects at the Integration Level	Are most useful in uncovering defects in the process flows during real world use of the system
Exhaustive Testing is	Is impractical but possible	Is practically possible	Is impractical and impossible	Is always possible	Is impractical but possible
Which of the following is not a part of the Test Implementation and Execution Phase	Creating test suites from the test cases	Executing test cases either manually or by using test execution tools	Comparing actual results	Designing the Tests	Designing the Tests
Which of the following techniques is NOT a White box technique?	Statement Testing and coverage	Decision Testing and coverage	Condition Coverage	Boundary value analysis	Boundary value analysis
A Project risk includes which of the following	Organizational Factors	Poor Software characteristics	Error Prone software delivered.	Software that does not perform its intended functions	Organizational Factors
The Planning phase of a formal review includes the following:-	Explaining the objectives	Selecting the personnel, allocating roles.	Follow up	Individual Meeting preparations	Selecting the personnel, allocating roles.
A Person who documents all the issues, problems and open	Moderator.	Scribe	Author	Manager	Scribe

points that were identified during a formal review.					
Which of the following is a Key Characteristics of Walk Through	Scenario , Dry Run , Peer Group	Pre Meeting Preparations	Formal Follow Up Process	Includes Metrics	Scenario , Dry Run , Peer Group
What can static analysis NOT find?	the use of a variable before it has been defined	unreachable ("dead") code	memory leaks	array bound violations	memory leaks
Incidents would not be raised against:	requirements	documentation	test cases	improvements suggested by users	improvements suggested by users
A Type of functional Testing, which investigates the functions relating to detection of threats, such as virus from malicious outsiders.	Security Testing	Recovery Testing	Performance Testing	Functionality Testing	Security Testing
Which of the following is not a major task of Exit criteria?	Checking test logs against the exit criteria specified in test planning.	Logging the outcome of test execution.	Assessing if more tests are needed.	Writing a test summary report for stakeholders.	Logging the outcome of test execution.
Testing where in we subject the target of the test, to varying workloads to measure and evaluate the performance behaviors and ability of the target and of the test to continue to function properly under these different workloads.	Load Testing	Integration Testing	System Testing	Usability Testing	Load Testing
Testing activity which is performed to expose defects in the interfaces and in the interaction between integrated components is:-	System Level Testing	Integration Level Testing	Unit Level Testing	Component Testing	Integration Level Testing
Static analysis is best described as:	The analysis of batch programs.	The reviewing of test plans.	The analysis of program	The use of black box	The analysis of program

	code.	testing.		code.	

# <u>UNIT-III</u>

Questions	opt1	opt2	opt3	opt4	opt5	opt6	Answers
Reviewing the test Basis is a part of which phase	Test Analysis and Design	Test Implementation and execution	Test Closure Activities	Evaluating exit criteria and reporting			Test Analysis and Design
Reporting Discrepancies as incidents is a part of which phase :-	Test Analysis and Design	Test Implementation and execution	Test Closure Activities	Evaluating exit criteria and reporting			Test Implementation and execution
Which of the following items would not come under Configuration Management?	operating systems	test documentation	live data	user requirement document			live data
Handover of Test-ware is a part of which Phase	Test Analysis and Design	Test Planning and control	Test Closure Activities	Evaluating exit criteria and reporting			Test Closure Activities
The approach/document used to make sure all the requirements are covered when writing test cases	Test Matrix	Checklist	Test bed	Traceability Matrix			Traceability Matrix
Executing the same test case by giving the number of inputs on same build called as	Regression Testing	ReTesting	Ad hoc Testing	Sanity Testing			ReTesting
A Non-Functional Software testing done to check if the user interface is easy to use and understand	Usability Testing	Security Testing	Unit testing	Block Box Testing			Usability Testing

The review and approved document (i.e. Test plan, System Requirement Specification's) is called as	Delivery Document	Baseline Document	Checklist	all the above	Baseline Document
What are the Testing Levels?	Unit Testing	Integration Testing	System Testing and Acceptance Testing.	All the above	All the above
Retesting of a single program or component after a change has been made?	Full Regression Testing	Unit Regression	Regional Regression	none	Unit Regression
What are the Types of Integration Testing?	Big Bang Testing	Bottom Up Testing	Top Down Testing	All the above	All the above
Retesting modules connected to the program or component after a change has been made?	Full Regression Testing	Unit Regression	Regional Regression	Retesting.	Regional Regression
Standards and procedures for managing changes in an evolving software product is called?	Confirmation Management	Confederation Mangement	Configuration Management	Compartability Management	Configuration Management
What is correct Software Process Cycle?	Plan(P) >Check(C) >Act(A) >Do(D)	Plan(P) >Do(D) >Check(C) >Act(A)	Plan(P) >Do(D) >Act(A) >Check(C)	all the above	Plan(P) >Do(D) >Check(C) >Act(A)

Conducted to validate that the application, database, and network they may be running on can handle projected volumes of users and data effectively. The test is conducted jointly by developers, testers, DBA's and network associates after the system Testing called as	Functional Testing	Stress/Load Testing	Recovery Testing	Integration Testing	Stress/Load Testing
Which Software Development Life cycle model will require to start Testing Activities when starting development activities itself	Water falls model	Spiral Model	V-model	Linear model	V-model
How severely the bug is effecting the application is called as	Severity	Priority	Fix ability	Traceability	Severity
means under what test environment(Hardware, software set up. the application will run smoothly	Test Bed	Checkpoint	Code Walk through	Checklist	Test Bed
A Plan to overcome the risk called as	Migration Plan	Master plan	Maintenance plan	Mitigation Plan	Mitigation Plan
Lower and upper limits are present in	Control chart	Run chart	Bar chart	Resource chart	Control chart
Syntax checking is a	Code coverage technique	Structural testing technique	Functional testing technique	Statement coverage technique	Functional testing technique

A principal goal is to detect functional and structural defects in the unit is the goal oftest	Unit testing	Integration testing	System testing	Acceptance testing	Unit testing
Which testing is used to detect defects that occur on the interfaces of units.	Unit testing	Integration testing	System testing	Acceptance testing	Integration testing
test takes place at the developer's site	alpha	beta	both a and b	none	alpha
test sends the software to a cross-section of users who install it and use it under realworld				none	beta
working conditions Always testing to be performed by an independent	alpha	beta	both a and b		
team Functional and quality requirements are the two major requirements fortesting	development  functional testing	performance testing	security testing	recovery testing	performance testing
Results of performance testing should be	qualifiable	quantifiable	none		quantifiable
Stress testing is one of the types oftesting  When a system is tested	Unit testing	Integration testing	System testing	Acceptance testing	System testing
with a load that causes it to allocate its resources in maximum amounts, this is	functional		performance	recovery	
called testing	testing	stress testing	testing	testing	stress testing

the systems'level is maintained when devices are interchanged, or					
when they fail	stress	quality	threshold	performance	performance
The following objective					
holds for which testing?					
"Show that all the					
configuration changing			_		
commands and menus work	configuration		performance	recovery	configuration
properly"	testing	stress testing	testing	testing	testing
Password checking is					
essential to maintain					
of the system	threshold	quality	security	performance	security
testing subjects			•		•
a system to losses of					
resources in order to					
determine if it can recover	configuration		performance	recovery	
from the losses	testing	stress testing	testing	testing	recovery testing
Regression testing is not a					
level of testing, but it is the					
retesting of software that					
occurs when changes are					
made to ensure that the					
version of the					
software has retained the					
capabilities of the					
version and that					
no new defects have been					
introduced due to the				none of the	
changes	old, new	new, old	both a and b	above	new, old
When software is being					
developed for a specific					
client, tests are					
carried out after system		Acceptance	System	Integration	Acceptance
testing	Unit testing	testing	testing	testing	testing

Which testing identifies any unprotected entries into the system that may allow access through unexpected channels	security testing	Acceptance testing	System testing	Integration testing	security testing
At test a single component is tested	Unit testing	Integration testing	System testing	Acceptance testing	unit testing
At the several components are tested as a group, and the tester investigates component interactions	Unit testing	Integration testing	System testing	Acceptance testing	Integration testing
principle goal is to evaluate attributes such as usability, reliability, and performance is the goal oftest	Unit testing	Integration testing	System testing	Acceptance testing	System testing
test begins when all of the components have been integrated successfully	Unit testing	Integration testing	System testing	Acceptance testing	System testing
A encapsulates multiple interacting methods operating on common data, so what we are testing is the intraclass interaction of the methods.	object	class	method	none of the above	class
One of the most beneficial features of object-oriented development is	encapsulation	polymorphism	class	object	encapsulation

A program unit, in the, can be built with a well-defined public interface that proclaims its services (available methods) to client classes.	class	object	method	procedure	class
Classes are usually a part of a class hierarchy where there are existing relationships	overriding	polymorphism	encapsulation	inheritance	inheritance
Subclasses inherit methods from their	subclass	neighbour class	superclasses	none of the above	superclasses
is developed especially for test and is in addition to the code that composes the system under development.	test case	test plan	test harness	test procedure	test harness
The harness consists of that call the target code	drivers	stubs	method	code	drivers
is a technique that can be used to hide information.	encapsulation	polymorphism	class	object	encapsulation
The harness consists of that represent modules it calls	drivers	stubs	method	code	stubs
when a unit has been completely tested and finally passes all of the required tests it is ready for	delivery	retest	integration	system test	integration

to assemble the individual units into working subsystems and finally a complete system that is ready for system test is the goal oftesting	Unit testing	Integration testing	System testing	recovery testing	Integration testing
The auxiliary code developed to support testing of units and components is called a	test case	test plan	test harness	test procedure	test harness
integration test should only be performed on units that have been reviewed and have successfully passed	Unit testing	Integration testing	System testing	recovery testing	Unit testing
A is described as a sequence of method executions linked by messages	method group	method overriding	method call	method- message path	method- message path
Very often subsystems selected for are prioritized	Unit testing	Integration testing	System testing	recovery testing	Integration testing
A encapsulates multiple interacting methods operating on common data, so what we are testing is the intraclass interaction of the methods.	object	class	method	none of the above	class
Password checking is essential to maintain of the system	threshold	quality	security	performance	security
testing subjects a system to losses of resources in order to determine if it can recover from the losses	configuration testing	stress testing	performance testing	recovery testing	recovery testing

Which of the following	operating	test	live data	user		live data	
items would not come under	systems	documentation		requirement			
Configuration				document			
Management?							

# <u>UNIT-IV</u>

Questions	opt1	opt2	opt3	opt4	opt5	opt6	Answers
The							
has a key role in							
developing and							
implementing the							
managerial components.	developer	test specialist	manager	customer			test specialist
setting goals and policies							
requires the							
participation and							
support of	upper	lower					upper
·	management	management	tester	developer			management
to increase market share							
10% in the next 2 years							
in the area of financial							
software is an example			Business/technical				
ofgoal	Business goal	Technical goal	goal	Political goal			Business goal
to reduce defects by 2%							
per year over the next 3							
years is an example of			Business/technical				
goal.	Business goal	Technical goal	goal	Political goal			Technical goal
to reduce hotline calls by							
5% over the next 2 years							
is an example of			Business/technical				Business/technical
goal.	Business goal	Technical goal	goal	Political goal			goal

to increase the number of women and minorities in high management positions by 15% in the next 3 years is an example ofgoal	Business goal	Technical goal	Business/technical goal	Political goal	Political goal
is guided by policy, supports goal achievement, and is a vital part of all					
engineering activities.	Developing	testing	Planning	specification	Planning
A can be described as (i) a statement of intent, or (ii) a statement of a accomplishment that an individual or an organization wants to achieve	plan	metric	review	goal	goal
A statement relates to an area where an individual, group, or organization wants to make improvements	plan	metric	review	goal	goal
make improvements	pian	metric	Teview	guai	goal
goal is in the top level in the hierarchy of goals	organizational functional unit	organizational	specific goals	personal-level goals	organizational
The organizational					
functional unit is					
represented in					
level in	ton	intormodiata	low	none of the should	intermediate
the hierarchy of goals	top	intermediate	low	none of the above	intermediate

In the testing domain, statements should provide a high- level vision of what testing is to accomplish					
in the organization with					
respect to quality of					
process and product.	goal	plan	requirements	design	goal
should					
express testing goals for		test			
each project	test case	procedures	Test plans	test metric	Test plans
A can be					
defined as a high-level					
statement of principle or					
course of action that is					
used to govern a set of					
activities in an					
organization	policy	metric	review	goal	policy
Because a					
provides the vision and					
framework for decision					
making, it is important					
to have the policy					
formally adopted by the					
organization,					
documented, and					
available for all					
interested parties.	goal	metric	review	policy	policy
Anis					
suggested as a location				intraorganizational	intraorganizational
for policy statements	database	requirements	TMM hierarchy	web site	web site
statements		2 4 2 3 3		2.5 5.55	
reflect, integrate, and					
support achievement of					
testing goals.	goal	metric	policy	plan	policy

tests must be		I	İ	İ	l i	i i
performed at several						
levels such as unit ,						
•						
integration, system, and						
acceptance tests as						
appropriate for each	Execution-					
software product	based	regression	security	performance		Execution-based
is the						
process dedicated to						
locating the defects,						
repairing the code, and						
retesting the software.	testing	Debugging	auditing	security testing		Debugging
A is a document						
that provides a						
framework or approach						
for achieving a set of						
goals	manual	metric	process	plan		plan
T0.11	Tool Quality	Test Quality	Total Quality	Total Quality		Total Quality
TQM represents	Management	Manager	Management	Manager		Management
A Plan to overcome the	Migration					
risk called as	Plan	Master plan	Maintenance plan	Mitigation Plan		Mitigation Plan
refers to the						
activities and tasks						
managers engage in to						
periodically check the						
status of each project.						
Reports are prepared						
that compare the actual						
work done to the work	Project		Project			
that was planned.	controlling	Milestones	monitoring	none of the above		Project monitoring

consists					
of developing and					
applying a set of					
corrective actions to get					
a project on track when					
monitoring shows a					
deviation from what was	Project		Project		
planned.	controlling	Milestones	monitoring	none of the above	Project controlling
are					
tangible events that are					
expected to occur at a					
certain time in the					
project's lifetime.					
Managers use them to	Project		Project		
determine project status	controlling	Milestones	monitoring	none of the above	Milestones
The itself may					
be a component of the					
overall project plan or					
exist as a separate					
document	manual	document	policy	master test plan	master test plan
Each test plan should					
have a					
so that it can be					
associated with a					
specific project and					
become a part of the	unique				
project history	identifier	plan	name	address	unique identifier
may be					
described as					
distinguishing					
characteristics of a					
software component or					
system.	behaviour	Features	performance	function	Features

has a set of					
deliverables that					
includes the test plan					
along with its associated					
test design					
specifications, test					
procedures, and test	security	recovery	Execution-based	performance	Execution-based
cases.	testing	testing	testing	testing	testing
is	_				_
supplementary code that					
is written specifically to					
support the test efforts,					
for example, module					
drivers and stubs	test case	test plan	test procedure	test harness	test harness
A is a		·			
hierarchical or treelike					
representation of all the					
tasks that are required	CMM			Work Breakdown	Work Breakdown
to complete a project	hierachy	TQM	Both a and b	Structure	Structure
is used to	,	,			
identity the features					
covered by the design					
and associated tests for		test design			test design
the features	test case	specification	test procedure	test harness	specification
		эрээтэлэг	toot processing	cost names	openious.c
A in general					
is a sequence of steps					
required to carry out a		test design			
specific task	test case	specification	procedure	test harness	procedure
to locate and		test			
track the items that are	test design	procedure		Test Item	Test Item
submitted for test	specification	specification	test harness	Transmittal Report	Transmittal Report
Submitted for test	specification	specification	test Halliess	mansmittai keport	mansimiliai keport
Each Test Item					
Transmittal Report has a					
unique	identifier	name	address	plan	identifier

1	1		I	1 1	1
is a diary of the					
events that take place					
during the test.	test log	test plan	test result	test harness	test log
The tester should record					
in a					
(sometimes					
called a problem report)					
any event that occurs					
during the execution of					
the tests that is					
unexpected,					
unexplainable, and that					
requires a follow-up	test case		test incident		test incident
investigation	report	test log	report	none of the above	report
report is					
prepared when testing is	test case	test summary	test incident		test summary
complete.	report	report	report	none of the above	report
The view	report	Терете	Тероге	Hone of the above	Терете
involves commitment					
and support for those					
activities and tasks					
related to improving					
testing process quality.	developer's	user's	tester's	manager's	manager's
The	developer 3	user s	tester s	manager 3	manager 3
view encompasses the					
technical activities and					
tasks that when applied,					
constitute best testing					
practices	developer's	user's	tester's	manager's	developer's
·	acvelopel 3	user s	icater a	manager 3	acvelopel 3
The view is					
defined as a cooperating	1				
or supporting view.	developer's	user's	tester's	manager's	user's

have an					
important role in the					
development of testing					
goals and policies	developer	user	tester	manager	developer
play an	астоюро.	0.00.		a.iagei	acrospe.
indirect role in the					
formation of an					
organization's testing					
goals and polices since					
these goals and policies					
reflect the organizations					
efforts to ensure					
customer/client/user		users and			
satisfaction	developer	client	tester	manager	users and client
support					
the test planning					
maturity goal by		users and			
preparing the test plans	developer	client	tester	manager	manager
By supporting a test					
group an organization					
acquires in					
areas that relate to					
testing and quality issues	coordination	management	teamwork	leadership	leadership
activities					
include filling positions,					
assimilating new					
personnel, education					
and training, and staff					
evaluation	testing	management	Staffing	none of the above	Staffing
includes					
providing leadership,					
building teams,					
facilitating					
communication,					
motivating personnel,					
resolving conflicts, and					
delegating authority.	testing	Directing	management	Staffing	Directing

includes selecting organizational structures, creating positions, defining responsibilities, and delegating authority.	Organizing	Directing	management	Staffing	Organizing
When the project is completed they return to the test organization					
for	testing	assignment	reassignment	none of the above	reassignment
is the central person concerned with all aspects of testing and				junior test	
quality issues.	test manager	test lead	test engineers	engineers	test manager
assists the test manager and works with a team of test engineers on individual projects.	test manager	test lead	test engineers	junior test engineers	
design, develop, and execute tests, develop test harnesses, and set up test laboratories and environments	test manager	test lead	test engineers	junior test engineers	
are usually new hires. They gain experience by participating in test design, test execution, and test harness				junior test	
development	test manager	test lead	test engineers	engineers	

is used to					
identity the features					
covered by the design					
and associated tests for		test design			test design
the features	test case	specification	test procedure	test harness	specification
are					
tangible events that are					
expected to occur at a					
certain time in the					
project's lifetime.					
Managers use them to	Project		Project		
determine project status	controlling	Milestones	monitoring	none of the above	Milestones
is the					
central person					
concerned with all					
aspects of testing and				junior test	
quality issues.	test manager	test lead	test engineers	engineers	test manager
By supporting a test					
group an organization					
acquires in					
areas that relate to					
testing and quality issues	coordination	management	teamwork	leadership	leadership
to reduce defects by 2%					
per year over the next 3					
years is an example of			Business/technical		
goal.	Business goal	Technical goal	goal	Political goal	Technical goal
is	<u> </u>	Ü		Š į	Ü
supplementary code that					
is written specifically to					
support the test efforts,					
for example, module					
drivers and stubs	test case	test plan	test procedure	test harness	test harness
The			•		
has a key role in					
developing and					
implementing the					
managerial components.	developer	test specialist	manager	customer	test specialist

## <u>UNIT-V</u>

Questions	opt1	opt2	opt3	opt4	opt5	opt6	Answers
Which of the							
following is true							
about Formal							
Review or							
Inspection:- i. Led							
by Trained							
Moderator (not the							
author) ii. No Pre							
Meeting Preparations iii.							
Formal Follow up							
process.iv. Main	ii is true and		i,iii,iv are				
Objective is to find	i,iii,iv are	i,iii,iv are true	false and ii is	iii is true and			ii is true and
defects	false	and ii is false	true	i,ii,iv are false			i,iii,iv are false

The Phases of formal review process is mentioned below						
correct order.i. Planning ii. Review Meeting iii. Rework iv. Individual Preparations v. Kick Off vi. Follow Up	i,ii,iii,iv,v,vi	Vi,i,ii,iii,iv,v	i,v,iv,ii,iii,vi	i,ii,iii,v,iv,vi		i,v,iv,ii,iii,vi
The Planning phase of a formal review includes the following:	Explaining the objectives	Selecting the personnel, allocating roles	Follow up	Individual Meeting preparations		Selecting the personnel, allocating roles

A Person who documents all the issues, problems and open points that were identified						
during a formal review.	Moderator	Scribe	Author	Manager		Scribe
Who are the persons involved in a Formal Review:- i. Manager ii. Moderator iii. Scribe			ii,iii,iv are	i,iv are true		
/ Recorder iv. Assistant Manager	i,ii,iii,iv are true	i,ii,iii are true and iv is false	true and i is false	and ii, iii are false		i,ii,iii are true and iv is false

Which of the following is a Key Characteristics of Walk Through	Scenario , Dry Run , Peer Group	Pre Meeting Preparations	Formal Follow Up Process	Includes Metrics	Scenario , Dry Run , Peer Group
What can static analysis NOT find?	the use of a variable before it has been defined	unreachable ("dead") code	memory leaks	array bound violations	memory leaks
Incidents would not be raised against:	requirements	documentation	test cases	improvements suggested by users	improvements suggested by users
Which of the following is not a major task of Exit criteria?	Checking test logs against the exit criteria specified in test planning.	Logging the outcome of test execution	Assessing if more tests are needed	Writing a test summary report for stakeholders.	Logging the outcome of test execution
Static analysis is best described as:	The analysis of batch programs.	The reviewing of test plans.	The analysis of program code.	The use of black box testing.	The analysis of program code.

Reviewing the test Basis is a part of which phase	Test Analysis and Design	Test Implementation and execution	Test Closure Activities	Evaluating exit criteria and reporting		Test Analysis and Design
Reporting Discrepancies as incidents is a part of which phase:-	Test Analysis and Design	Test Implementation and execution	Test Closure Activities	Evaluating exit criteria and reporting		Test Implementation and execution
Which of the following items would not come under Configuration Management?	operating systems	test documentation	live data	user requirement document		live data
Handover of Test- ware is a part of which Phase	Test Analysis and Design	Test Planning and control	Test Closure Activities	Evaluating exit criteria and reporting		Test Closure Activities

Control Charts is a statistical technique to assess, monitor, and maintain the stability of a	TDIIF	FALSE			TRUE
process.	TRUE	FALSE			TRUE
Staff development plan describes how the skills and experience of the					
project team members will be					
developed.	TRUE	FALSE			TRUE

The review and approved document						
(i.e. Test plan, System Requirement Specification's) is called as	Delivery Document	Baseline Document	Checklist	none of the above		Baseline Document
canca as	Document	Document	CHECKUSE	4,000		Document
Name the events that will be						
analyzed, Count the named incidents,						
Rank the count by frequency using a						
bar chart & Validate reasonableness of						
the analysis is called as	Pareto Analysis	Cause and Effect Diagram	SWOT Analysis	Pie Charts		Pareto Analysis
canca as	Allatysis	Litect Diagraili	Alialysis	i ic ciiai ts		i di eto Aliatysis

Configuration Management Plan describes the Configuration Management procedures and structures to be	TRUF	FΔISF			TRUE
used.	TRUE	FALSE			TRUE
Phase Definition. It will come under	CMM Level 1	CMM Level 2	None		CMM Level 2

qual It is of th proc corr It ap part & De	easures the lity of a product a specific part he QA cedure, It is a rective process, oplies for cicular product eals with the duct.	Validation	Verification	Quality assurance	Quality control		Quality control
Proc The perf	duct Risk affects quality or formance of the ware.	TRUE	FALSE				TRUE

A metric used to measure the characteristic of documentation and code called as	Process metric	Product Metric	test metric	none of the above		Product Metric
code called as	Frocess metric	Froduct Metric	test metric	above		Froduct Metric
Business Risk affects The Organization developing or						
Procuring the software.	TRUE	FALSE				TRUE

Stratification is a Technique used to					
analyze/divide a universe of data into homogeneous					
groups(stratA	TRUE	FALSE			TRUE
It provides a set of levels and an assessment model, and presents a set of recommended practices that allow organizations to improve their	TIM (Testing Improving	TMM (Testing	TQM(Total Quality		TIM (Testing Improving
testing processes.	Model)	Maturity Model)	Management)		Model)

Standards and procedures for managing changes in an evolving software product is called?	Confirmation Management	Confederation Mangement	Configuration Management	Compartability Management		Configuration Management
Maintenance Plan predicts the maintenance requirements of the system, maintenance costs and effort required	TRUE	FALSE				TRUE
Integration, It will come under	CMM Level 1	CMM Level 3	CMM Level 2	none of the above		CMM Level 3

A metric used to measure the characteristic of the methods, Techniques and tools employed in developing, implementing and maintaining the software system called as	Process metric	Product Metric	test metric	none of the above		Process Metric

Check Sheet(Checklist. is						
considered a simple						
, but powerful statistical tool						
because it						
differentiates between two						
extremes.	TRUE	FALSE				TRUE
Management and Measurement, It						
will come under	CMM Level 1	CMM Level 3	CMM Level 4	CMM Level 2		CMM Level 4
				Software that		
				does not		
A Project risk includes which of	Organizational	Poor Software	Error Prone software	perform its intended		Organizational
the following	Organizational Factors	characteristics	delivered.	functions		Organizational Factors

					1	
1						
In a risk-based approach the risks						
identified may be						
used to : i.						
Determine the test						
technique to be						
employed ii.						
Determine the						
extent of testing to						
be carried out iii.						
Prioritize testing in						
an attempt to find						
critical defects as						
early as possible. iv.	ii is True; i,		ii & iii are			
Determine the cost	iii, iv & v are	i,ii,iii are true	True; i, iv	ii, iii & iv are		i,ii,iii are true
of the project	False	and iv is false	are False	True; i is false		and iv is false

It is a set of levels that defines a testing maturity hierarchy	TIM (Testing Improving Model)	TMM (Testing Maturity Model)	TQM(Total Quality Management)	none of the above		TMM (Testing Maturity Model)
Optimization, Defect Prevention, and Quality Control. Its come under the	CMM Level 2	CMM Level 3	CMM Level 4	CMM Level 5		CMM Level 5
Monitoring testing status means identifying the state of the testing process	current	previous	old	none of the above		current

Theneeds to determine if the testing tasks						
are being completed on time and within				none of the		
budget.	tester	manager	developers	above		manager
In the past the						
measure LOC/hour						
has been used to						
evaluate						
productivity for				none of the		
·	tester	manager	developers	above		developers

1	I I	1		1	I	1
Test effectiveness						
will						
allow managers to						
determine if test						
resources have been						
used wisely and						
productively to						
remove defects and						
evaluate product				none of the		
quality.	measurements	evaluations	testing	above		measurements

Test effectiveness						
allow managers to learn						
which testing						
activities are or are				none of the		
not productive	measurements	evaluations	testing	above		evaluations
usually						
result in some type						
of status report published by the						
project manager						
that is distributed to				Status		Status
upper management.	Client meeting	testing	developing	meetings		meetings

is the technique is based on intentionally inserting a known set of defects into a	coding	viruses	Fault Seeding	none of the		Fault Seeding
program.	coding	viruses	Fault Seeding	above		Fault Seeding
The Capability Maturity Model includes configuration management as a Key Process Area at						
	CMM Level 2	CMM Level 3	CMM Level 4	CMM Level 5		CMM Level 2

are formally reviewed and agreed upon versions of software artifacts, from which all changes are measured	Baselines	documentation	manual	none of the above		Baselines
The team involved in change control is			configuration			
called a	change control	management	control			configuration
<u> </u>	board	board	board	SCM board		control board

contain a history of all the changes and change information for each configuration item	configuration control board	Configuration status reporting	documents	manual		Configuration status reporting
comiguration item	Control board	Teporting	documents	manuat		reporting
Ais a						
group meeting						
whose purpose is to						
evaluate a software						
artifact or a set of software artifacts	status	defect	audit	review		review

reviews usually focus on project management and project status.	Managerial	technical	formal	informal		Managerial
project status.	ivianagenai	tecimical	TOTTILAT	imormat		iviariageriai
rovious						
reviews are an important						
way for colleagues						
to communicate and						
get peer input with	_					
respect to their work	Managerial	technical	formal	informal		informal

reviews require written reports that						
summarize findings, and in the case of one type of review called an inspection, a statement of responsibility for the results by the reviewers is also						
required.	Managerial	technical	formal	informal		formal

Inspections are a type of review that is in nature and requires prereview						
preparation on the part of the review						
team	Managerial	technical	formal	informal		formal
The key item that the inspection leader prepares is the						
that						
serves as the agenda				checklist of		checklist of
for the review	manual	documents	plan	items		items

When the inspection meeting has been completed (all agenda items covered) the inspectors are usually asked to sign a written document that is sometimes called a	summary report	status report	audit report	none of the above		summary report
have traditionally been applied to design and code	Inspections the use of a	Walkthroughs	Audit	Review		Walkthroughs
What can static analysis NOT find?	variable before it has been defined	unreachable ("dead") code	memory leaks	array bound violations		memory leaks

Incidents would not be raised against:	requirements	documentation	test cases	improvements suggested by users		improvements suggested by users
The Capability						
Maturity Model includes configuration						
management as a Key Process Area at						
, 	CMM Level 2	CMM Level 3	CMM Level 4	CMM Level 5		CMM Level 2

are formally reviewed and agreed upon versions of software						
artifacts, from which all changes are measured	Baselines	documentation	manual	none of the above		Baselines
Business Risk affects The						
Organization developing or Procuring the software.	TRUE	FALSE				TRUE