ASSIGNMENT - V

Q1 Compare varification and validation.

Ans-

Varification	Validation.
• It includes chacking documents, design, codes and programs.	It included testing and validation the actual product.
• Verification is the static testing	Validation is dynamic testing
• It does not include the execution of the code	It includes the execution of the code
• Methods used in varification are reviews, walkthroughs, inspections and desk-checking	Methods used in validation are black box testing, white box testing and non-functional
• It checks whether the software conforms to specification or not	It checks whether the software meets the requirement and expectations of a customer or not.
• It can find bugs in the early stage of development	It can only find the bugs that could not be found by the verification process.
• The goal of varification is application and software architecture and specification	The goal of validation is an actual product.

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Q2. Write Short note on unit testing ?

Ans— Unit testing is a software testing technique by means of which individual units of software i.e. group of computer program modules, usage procedures and operating procedures and tested the determine whether they are suitable for use or not. It is a testing method using which every independent modules are tested to determine if there are any issues by the developer himself. It is correlated with functions correctness of the independent modules.

Unit Testing is defined as a type of software testing where individual components of a software are tested.

Unit Testing of software product is carried out during the development of an application. An individual component may be either an individual function or a procedure. Unit Testing is typically performed by the developer.

In SDLC or V model, Unit testing is first level of testing done before integration testing. Unit testing is such type of testing technique that is usually performed by the developers. Although due to reluctance of developers to tests, quality assurance engineers also do unit testing.

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Q3. Explain different types of testing in detail

Ans — a> Unit Testing
It focuses on smallest unit of software design. In this we test an individual unit or group of inter related units. It is often done by programmer by using sample input and observing its corresponding outputs.

b> Integration Testing
The objective is to take unit tested components and build a program structure that has been dictated by design. Integration testing is testing in which a group of components are combined to produce output.

c> Regression Testing.
Every time new module is added leads to changes in program. This type of testing makes sure that whole component works properly even after adding components to the complete program.

d> Smoke Testing
This testing is done to make sure that software under testing is ready or stable for further testing.

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Q4. What do you mean by test case management?

Ans— Test management, process of managing the tests. A test management is also performed using tools to manage both types of tests, automated and manual, that have been previously specified by a test procedure.
The test management tools allow automatic generation of the requirement test matrix (RTM), which is an indication of functional coverage of the application under test (SUT)
Test management tool often has multifunction-al capabilities such as testware management, test scheduling, the logging of result, test tracking, incident management and test reporting.

Q5. What do you mean by system testing? Give a case study of a system testing for operating system?

Ans- In this software is tested such that it works fine for different operating system. It is covered under the black box testing technique. In this we just focus on required input and ~~otupt~~ output without focusing on

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internal working.
In this we have security testing, rocovery testing, stress testing and performance testing.
Example :

This include functional as well as non functional testing.

Q6 What do you mean by boundary value analysis? give two examples of boundary value testing.

Ans— Boundary value analysis is a type of black box or specification based testing technique in which tests are performed using the boundary values.

Example,
An exam has a pass boundary at 50 percent, merit at 75 percent and distinction at 85 percent. The Valid Boundary values for this scenario will be as follows:

49, 50 - for pass
74, 75 - for merit.
84, 85 - for distinction

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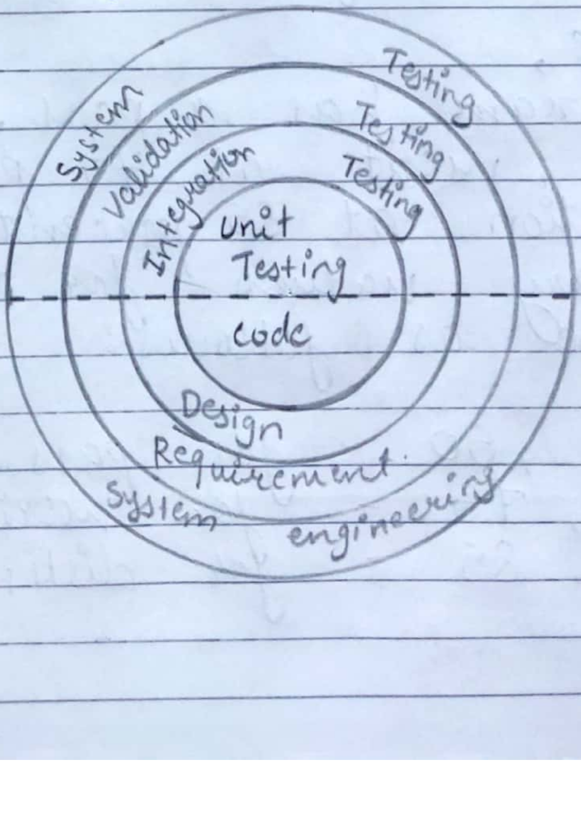
Boundary values are validated against both the valid boundaries and invalid boundaries.
The invalid Boundary Cases for the above example can be given as follows :

0 - for lower limit boundary value
101 - for upper limit boundary value.

Q7. What are the various testing strategies to software testing ? Discuss them briefly

Ans— A strategy of software testing is shown in the content of spiral.

Following figure shows the testing strategy



Unit testing
Unit testing starts at the centre and each unit is implemented in source code

Integration testing
An integration testing focuses on the construction and design of the software

Validation testing
Checki all the requirements like functional, behavioral and performance requirement are validate against the construction software.

System testing
System testing confirms all system elements and performance are tested entirely.

Testing strategy for procedural point of view

As per the procedural point of view the testing includes following steps:

1> Using testing
2> Integration testing
3> High order tests
4> Validation testing.

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Q8. Explain in detail test case specification?

Ans- In software testing, a test case specification of the input, execution conditions, testing procedure, and expected result that define a single test to be executed to achieve a particular software testing objective, such as to exercise a particular testing program path or to verify compliance with a specific requirement. Test cases underlie testing that is methodical rather than haphazard. A battery of test case can be built to produce the desired coverage of the software being tested.

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