**MODULE-2(Manual Testing)**

**Que :- 1 WHAT IS SOFTWARE TESTING?**

* Software Testing is the process of evaluating and verifying that a software product or application does what it is supposed to do.
* Testing is executing a system in order to identify any gaps, errors or missing requirements in contrary to the actual desire or requirements.
* Software testing is a process used to identify the correctness, completeness, and quality of developed computer software.

**Que :- 2 WHAT IS ERROR, DEFECT, BUG AND FAILURE?**

A mistake in coding is called Error, error found by tester is called Defect, defect accepted by development team then it is called Bug, build does not meet the requirements then it is Failure.

**ERROR/MISTAKE DEFECT/BUG/FAULT FAILURE**

**DEVELOPER TESTER CUSTOMER**

**Que :-3 DIFFERENCE BETWEEN QA V/S QC V/S TESTER.**

QA is the “QUALITY ASSURANCE” which is focuses on process and produces rather than management actual testing on the system. QA is the ‘Process oriented activities and preventing activities.’

QC is the “QUALITY CONTROL” which is the focuses on the actual testing by executing software with intend to identify bug/defect through implementation of procedures and process. QS is ‘Product oriented activities and corrective process.’

TESTING is the focuses on actual testing. Testing is ‘Product oriented activities and preventing process. Testing is the subset of Quality Control.

**Que :-4 WHAT IS 7 KEY PRINCIPLES? EXPLAIN IN DETAIL.**

Following are the seven principles of Testing:-

1. Testing shows presence of defects
2. Exhaustive testing is impossible!
3. Early testing
4. Defect clustering
5. The pesticide paradox
6. Testing is context dependent
7. Absence of errors fallacy

**1.Testing shows presence of defects:-**

Testing can show that defects are present, but cannot prove that there are no defects. As we find more defects, the probability of undiscovered defects remaining in a system reduces. That, testing cannot prove that there are no defects present.

**2.Exhaustive testing is impossible:-**

Testing everything including all combinations of inputs and preconditions is not possible. Testing everything is not feasible except for miserable cases. If we go to investigate all, time does not express and all investigate are not possible.

**3.Early Testing:-**

Testing activities should start as early as possible in the software or system development life cycle. Start the testing when the stage of requirement gathering comes.

**4.Defect Clustering:-**

Most defects found during testing are usually in to a small number of modules. Defects are not evently spread in a system, they are clustered.

**5.Pesticide Paradox:-**

Repeating the same test cases, again and again, will not find new bugs. So it is necessary to review the test cases and add or update test cases to find new bugs. This simply means that as the same test suite is run multiple times, it becomes ineffective in catching bugs.

**6.Testing is context dependent:-**

The Testing approach depends on the context of the software developed. Different types of software need to perform different types of testing. Different methodologies, techniques and types of testing is related to the type and nature of the application.

**7.Absence of errors fallacy:-**

Absence of error fallacy is the, at the time of testing defects were not found in the software, doesn’t mean that the software is ready to be shipped. If a built software is 99% bug-free but it doesn’t follow the user requirement then it is unusable.

**Que :-5 WRITE A SCENARIO OF ONLY WHATSAPP CHAT MESSAGES.**

* First of all we install the Whatsapp app, then creat an account.
* Then verify the whatsapp login or not.
* Whatsapp login, then we are invite our contact number friend who already use a whatsapp.
* When we open the whatsapp chating, we can make a video call and voice call or not.
* Verify the reply to chat other person’s.
* Verify we can reacation to person’s chat or not.
* Check the we can sent the sticker, GIFS or not.
* We should also check that anyone can block or not.
* We should also check we can make message disappear or not.
* Verify the chat can delete from us and from the other friend or not.
* We can also have wallpaper in the chat or not.
* We can send our photos or videos through chatting or not.
* How much limit can we send video or file?

**Que :-6 WRITE A SCENARIO OF PEN.**

* Verify that brand name and logo of the company.
* Check the length and its thickness.
* Check the colour of the body and its pen ink.
* Verify the pen material of the pen.
* Verify the type of pen that it’s a point, ink pen or gel pen.
* Check the strength of pen body.
* Check the pen’s not easily breakable.
* Check the pen waterproof or not.
* Check the grip of pen.
* Verify the gel pen it’s not more spreading or not.
* User can easily change the pen’s refill or not.
* Check the effect of any liquid things like oil, water.
* Check the how user can write with a pen speedily.
* We should check that it is not imprinted on the other pages.
* Check that It is not difficult to print what we have written with a pen or not.
* It should be checked that the cap of pen can be opened or closed.
* Also check how some pen’s spring .
* It should also be checked that the pen is easy to write with.
* Also check how much space the pen occupies.

**Que :-7 WRITE A SCENARIO OF DOOR.**

* Verify that material used in door body and its parts is as per the specifications.
* Check the door is single or double side door.
* Check the door opens inwards or outwards.
* Verify if door is sliding or roatating door.
* Check the how door locked.
* Verify the door quality.
* Check the door is having stopper or not.
* Verify if the door makes noise when opened or closed.
* Check the door condition in different temperature.
* The force required to open the door should also be checked.
* Check door is having peek-hole or not.
* Verify the door is automatically closed or not.
* Verify the door colour or specified.
* It should also be seen that the door closes properly or not.
* Also check how much space is left when the door is closed.
* Check the design of door its simple or not.

**Que :-8 WHAT IS PRIORITY?**

Priority is defined as the order in which the defects should be resolved. Priority is relative and business focused. In priority P0 is highest and P5 is lowest. Priority can be of following types: LOW, MEDIUM, HIGH, CRITICAL.

**Que :-9 WHAT IS LOAD TESTING?**

Load testing is a non-functional software testing process in which the performance of the software application is tested under a specific expected load. It determines how the software application behaves while being accessed by multiple users simultaneously. Load testing is the process of subjecting a computer, server, network or application to a work level approaching the limits of its specifications.

**Que :-10 WHAT IS STRESS TESTING?**

Stress testing is a software testing activity that determines the strength of software by testing beyond the limits of normal operation. Stress testing is the process of determining the ability of a computer, network, program or device to maintain a certain level of effectiveness under unfavourable conditions.

**Que :-11 MENTION WHAT IS BIGBANG TESTING?**

Big bang integration testing is an integration testing strategy wherein all units are linked once, resulting in a complete system. Big bang testing has the advantages that everything is finished before integration testing starts. In big bang testing all components or modules are integrated simultaneously, after which everything is tested as a whole.

**Que :-12 WHAT IS BOUNDARY VALUE TESTING?**

Boundary value testing is a software testing technique in which tests are designed to include representatives of boundary values in a range. Boundary testing is a black-box testing technique that software developers often use to check the errors at the boundaries or extreme ends of a given input domain. It checks for the input values near the boundary that have a higher chance of error. Every partition has its maximum and minimum values and these maximum and minimum values are the boundary values of a partition.

**Que :-13 WHAT IS “REGRESSION TESTING” BE PERFORMED?**

Regression testing is performed to find out that the updates or changes had caused new defects in the existing functions. Regression testing is done after functional testing has concluded, to verify that the order functionalities are working. In the corporate world, regression testing has traditionally been performed by a software quality assurance team after the development team has completed work.

**Que :-14 WHAT IS FUNCTIONAL SYSTEM TESTING?**

Functional testing is a type of testing that seeks to establish that each application feature works as per the software requirements. Functional testing is focuses lies on user or business requirements. This testing is what the system should do.

**Que :-15 WHAT IS NON-FUNCTIONAL SYSTEM TESTING?**

Non-functional testing verifies the way software works and how well it works. Non-functional testing assesses application properties that aren’t critical to functionalities but contribute to the end user experience. Non-functional testing helps us identify the risks a product foresees and tells us if it has poor performance in product or production environments. In a sense, these tests are done in order to obtain information.

**Que :-16 WHAT IS ADHOC TESTING?**

Adhoc testing is a type of software testing which is performed informally and randomly after the formal testing is completed to find out any loophole in the system. Adhoc testing is a commonly used team for planned software testing that is performed without initial test case documentation. This testing main aim is to find defects by random checking.

**Que :-17 WHAT IS WHITE BOX TESTING AND LIST THE TYPES OF WHITE BOX TESTING?**

White box testing is an approach that allows testers to inspect and verify the inner workings of a software system. In white box testing, the tester is knowledgeable of internal design of the application and analyses it during testing. There are three types of this testing:-

1. Statement/segment coverage
2. Decision/Branch coverage
3. Condition coverage

**Que :-18 WHAT IS BLACK BOX TESTING? WHAT ARE THE DIFFERENT BLACK BOX TESTING TECHNIQUES?**

Black box testing involves testing a system with no prior knowledge of its internal workings. Black box testing techniques apply to all levels of testing, as well as functional and non functional testing types. There are some black box testing techniques:-

1. Equivalence partitioning
2. Boundary value analysis
3. Decision tables
4. State transition testing
5. Use case testing
6. Other black box testing
7. Syntax or pattern testing

**Que :-19 DIFFERNCE BETWEEN SMOKE AND SANITY.**

Smoke testing is performed to ascertain that the critical functionalities of the program are working fine. Sanity testing is done at random to verify that each functionality is working as expected. Smoke testing means to verify that the implementions done in a build are working fine. Sanity testing means to verify the newly added functionalities, bugs etc are working fine.

**Que :-20 WHAT IS EQUIVALENCE TESTING?**

Equivalence testing is an approach to software testing that is often described as simultaneous learning, test design and execution. For example We have to check the positive values in this testing the result is shows proper and when we have to check negative values this is shows proper or not.

**Que :-21 WHAT IS COMPONENT TESTING?**

In this type of testing those test objects can be tested independently as a unit without integrating with other components without modules, classes, objects and programs. This testing is known as unit and module testing. This testing is done by the development team. Component testing involves testing each object or part of the software separately.

**Que :-22 WRITE A SCENARIO OF MICROWAVE OWEN.**

* Verify that the temperature regulator is smooth to operate.
* Verify that the temperature regulator is correctly.
* Verify that the microwave oven capacity.
* Verify that the food is heated properly or not.
* Check whether the food is coocked properly in the microwave oven.
* Check that the food plate inside the microwave oven is correct or not.
* Verify that the digital display is clearly visible and functions correctly.
* Verify that the text written over the oven’s body is clearly readable.
* Check that the oven’s functionality with different food at different temperature.
* Verify that the oven’s functionality with different kinds of container material.
* Check that the battery requirement of the microwave oven and check that it functions smoothly at the power.
* Verify that the oven’s door open and close smoothly.
* Verify that the dimensions of the oven are as per the specifications provided.
* Check that the ovens functioning with minimum attainable temperature.
* Check that the maximum capacity of the oven and test its functioning with that volume of food.
* Verify that the ovens material.
* Check how much food can fit in the oven.

**Que :-23 WRITE A SCENARIO OF COFFEE VENDING MACHINE.**

* Verify that the dimension of the coffee machine is as per the specification.
* Verify that the machine’s body and inner material and its part of machine.
* Verify the quantity of milk, hot water, coffee powder per serving correct.
* Verify that coffee should not leak when not in operation.
* Verify the amount of coffee served in single-serving is as per specification.
* Check if the machine can be switched on and off using the power buttons.
* Verify that each button has a text and image with it, indicating the task it performs.
* Verify that the coffee served has the same and correct temperature each time it is served by the machine.
* Verify that system should display an error when it runs out of item.
* Verify that the machine’s body colour as well brand is correctly visible and as per specifications.
* Verify if there is noise while making coffee.
* Check the time the machine takes to serve a coffee.
* Verify that the extra passage of coffee in machine.
* Check whether the introduction to cleaning the copier is provided.
* Verify that the functioning of all buttons work properly when pressed.

**Que :-24 WHAT IS ALPHA TESTING?**

Alpha testing is the initial phase of validating whether a new product will perform as expected. During alpha testing is done to make sure a product is ready to send to power end-users for beta testing. It is always performed in virtual environment. It is carried out at the developing and testing team and that’s why it comes under the category of both black and white box testing.

**Que :-25 WHAT IS BETA TESTING?**

Beta testing is an opportunity for real users to use a product in a production environment to uncover any bugs or issues before a general release. This testing is always performed at the time when software product and project are marketed. It is a pre-release early version. It is only a kind of black box testing.

**Que :-26 WHAT IS INTEGRATION TESTING?**

Integration testing is the phase in software testing in which individual software modules are combined and tested as a group. Integration testing is conducted to evaluate the compliance of a system or component with specified functional requirements. It occurs after unit testing and before system testing.

**Que :-26 WHAT IS GUI TESTING?**

Graphical user interface testing(GUI) testing is the process for ensuring proper functionality of the graphical user interface for a specific application. Tests the user interface from the users perspective. Offers developers and testers ease of use and learning. Helps validate the compliance of various icons and elements with their design specifications.

**Que :-28 DIFFERENCE BETWEEN VARIFICATION AND VALIDATION.**

Verification is a process of determining if the software is designed and developed as per the specified requirements. Validation is the software has met the client’s true needs and expectations.

**Que :-29 DIFFRENCE BETWEEN PRIORITY AND SEVERITY.**

Severity is basically a parameter that denotes the total impact of a given defect on any software.

Severity has five types:- Critical, major(high), moderate(medium), minor(low), cosmetic.

Severity has five types:- low, medium, high, critical. P0 is highest priority and P5 is lowest priority.

**Que :-30 WHAT IS BUG LIFE CYCLE.**

Bug life cycle is the journey of a defect cycle, which a defect goes through during its lifetime. A computer bug is an error, flaw, mistake, failure or fault in a computer program that prevents it from working correctly or produce an incorrect result. Bugs arise from mistakes and errors made by people in either a programs source code or its design.

* **BUG(DEFECT) LIFE CYCLE:-**

**NEW**

**ASSIGN**

**DUPLICATE REJECTED**

**DEFFERED**

**NOT A BUG**

**OPEN**

**FIXED**

**PENDING RESEST**

**REOPENED**

**RESET**

**VERIFIED**

**CLOSED**

**Que :-31 BUG CATEGORIES ARE.**

* Performance bugs
* Security bugs
* Unit level bugs
* Functional bugs
* Usability bugs
* Syntax errors
* Compatibility errors
* Logic bugs

**Que :-32 WHAT ARE THE DIFFERENT METHODOLOGIES IN AGILE DEVELOPMENT MODEL?**

There are five(5) main Agile methodologies:

Scrum, Kanban, extreme programming(XP), Lean development a crystal.

**Que :-33 EXPLAIN THE DIFFERENCE BETWEEN AUTHORIZATION AND AUTHENTICATION IN WEB TESTING. WHAT ARE THE COMMON PROBLEMS FACED IN WEB TESTING?**

Authentication is the process of verifying who someone is, whereas authorization is the process of verifying what specific applications, files and data a user has access to.

Authentication:- Accepting an invalid username/password

Authorization:- Accessibility to pages though permission not given.

**Que :-34 What is the difference between the STLC (Software Testing Life Cycle) and SDLC(Software Development Life Cycle)?**

Software development life cycle is a sequence of different activities performed during the software development process. Software testing life cycle is a sequence of different activities performed during the software testing process.

**Que :-35 What DETERMINES THE LEVEL OF RISK?**

The level of risk is determining by analysing the values assigned to likelihood of threat occurrence and the resulting impact of threat occurrence. The likelihood of an adverse event and the impact of the event.