## Module–2(Manual Testing

**1)What is Exploratory Testing?**

**Ans:-Exploratory testing is a type of software testing where the tester actively Explores the application under test to identify defects, rather than following a Predetermined test plan or script. It's an iterative and interactive process that Allows the tester to gain a deeper understanding of the software and to Uncover unexpected issues or behaviors.**

**2)What is traceability matrix?**

**Ans:- The relationship between test cases and requirements is shown with the help of a document. This document is known as a traceability matrix.**

**3)What is Boundary value testing?**

**Ans:-Testing using the boundary values of The equivalence classes taken as the test input.**

**4)What is Equivalence partitioning testing?**

**Ans:-a software testing technique that divides the input data of a software unit into partitions of equivalent data from which test cases can be derived.**

**5)What is Integration testing?**

**Ans:-Integration testing is the second level of the software testing process comes after unit testing. In this testing, units or individual components of the software are tested in a group. The focus of the integration testing level is to expose defects at the time of interaction between integrated components or units.**

**6)What is Alpha testing?**

**Ans:-Alpha testing is done by testers and quality analysts inside the organization.**

**7)What is beta testing?**

**Ans:-while Beta Testing is done in the user's environment.**

**8)What is component testing?**

**Ans:-Component testing is a form of closed-box testing, meaning that the test evaluates the behavior of the program without considering the details of the underlying code**

**9)What is functional system testing?**

**Ans:-FUNCTIONAL TESTING is a type of software testing that validates the**

**Software system against the functional requirements/specifications. The**

**Purpose of Functional tests is to test each function of the software application,**

**By providing appropriate input, verifying the output against the Functional Requirements.**

**10)What is Non-Functional testing? Ans:-Non-Functional Testing is defined as a type of Software testing to check Non-functional aspects (performance, usability, reliability, etc) of a software Application. It is designed to test the readiness of a system as per Nonfunctional parameters which are never addressed by functional testing. An excellent example of a non-functional test would be to check how many People can simultaneously login into a software.**

**11)What is GUI Testing?**

**Ans:-GUI testing is a technique that tests the part of the application visible to the user. The GUI (graphical user interface) includes all the screen elements, like text fields, buttons, menus, scroll bars, hyperlinks, images, etc.**

**12)What is Adhoc testing?**

**Ans:-Adhoc testing is an unstructured way of testing that is performed without Any formal documentation or proper planning.**

**13)What is load testing?**

**Ans:-Load testing is a type of performance testing which aims at finding an Application's performance under the expected workload. During load testing, We evaluate the response time, throughput, error rate, etc parameters of the Application.**

**14)What is stress Testing?**

**Ans:-Stress testing is a type of performance testing in which an application's Behavior is monitored under a higher workload than expected. Stress testing Is done to find memory leaks and the robustness of the application.**

**15)What is white box testing and list the types of white box testing?**

**Ans:-White Box Testing is a testing technique in which software's internal Structure, design, and coding are tested to verify input-output flow and Improve design, usability, and security. In white box testing, code is visible to Testers, so it is also called Clear box testing, Open box testing, Transparent Box testing, Code-based testing, and Glass box testing.**

**Types of white box testing**

**1)Statement coverage**

**2)Decision coverage**

**3)Condition coverage**

**16)What is black box testing? What are the different black box testing techniques?**

**Ans:-Black box testing is a powerful testing technique because it exercises a System end-to-end. Just like end-users "don't care" how a system is coded or Architected, and expect to receive an appropriate response to their requests, a Tester can simulate user activity and see if the system delivers on its promises. Along the way, a black box test evaluates all relevant subsystems, including UI/UX, web server or application server, database, dependencies, and Integrated systems.**

**Types of black box testing**

- **Boundary Value Analysis**
- **Equivalence partitioning**
- **State Transition Testing**
- **Decision Table Testing**
- **Graph-Based Testing**
- **Error Guessing Technique**

**17)Mention what are the categories of defects?**

**Ans:-•Data Quality/Database Defects**

**•Critical Functionality Defects**

**•Functionality Defects**

**•Security Defects**

**•User Interface Defects**

**18)Mention what bigbang testing is?**

**Ans:-Big bang Integration Testing – In big bang integration testing, Testing starts only after all the modules are integrated.**

**19)What is the purpose of exit criteria?**

**Ans:-End of all testing – i.e. product Go Live**

**End of phase of testing (e.g. hand over from System Test to UAT)**

**Purpose of exit criteria is to define when we STOP testing either at the:**

**20)When should "Regression Testing" be performed?**

**Ans:-Regression testing involves testing the application to verify that a new Code change doesn't affect the other parts of the application.**

**21)What is 7 key principles? Explain in detail?**

**Ans:-Principle 1: Testing shows the presence of defects, not their absence.**

**Principle 2: Exhaustive testing is not possible.**

**Principle 3: Testing activities should start as early as Possible.**

**Principle 4: Defects tend to cluster together.**

**Principle 5: The pesticide paradox.**

**Principle 6: Test is context dependent.**

**Principle 7: The fallacy of assuming that no failures means a useful system**

**22)Difference between QA v/s QC v/s Tester**

**Ans:-QA:-Setting up adequate processes, introducing the standards of quality to prevent the errors and flaws in the product**

**QC:-Making sure that the product corresponds to the requirements and specs before it is released**

**Tester:-Detecting and solving software errors and flaws**

**23)Difference between Smoke and Sanity?**

**Ans:-1)Smoke Testing is performed to ascertain that the critical functionalities of The program are working fine.**

**2)Sanity Testing is done to check the new functionality/bugs have been fixed.**

**24)Difference between verification and Validation**

**Ans:-Verification is a process of determining if the software is designed and Developed as per the specified requirements.**

**:- Validation is the process of checking if the software (end product) has met The client's true needs and expectations**

**25)Explain types of Performance testing.**

**Ans:-Performance testing is a type of non-functional testing in which the Performance of the system is evaluated under expected or higher load. The Various performance parameters evaluated during performance testing are**

**:-Response time, reliability, resource usage, scalability, etc. The different**

**Types of performance testing are –**

**Load, Stress,**

**Endurance,**

**Spike,**

**Volume Testing.**

**26)What is Error, Defect, Bug and failure?**

**Ans:-Error :- We can say that a mistake made by a programmer during coding is Called an error.**

**Defect :- an error found during the testing in the development phase is called a Defect.(Deviation from requirement)**

**Bug:- an error found during the testing phase is called a bug.**

**27)Difference between Priority and Severity**

**Ans:-1)Severity is basically a parameter that denotes the total impact of a given Defect on any software.**

**2)Priority is basically a parameter that decides the order in which we should fix The defects.**

**28)What is Bug Life Cycle?**

**Ans:-The developer first identifies the bug, then moves to the tester for testing, and the tester marks the stages based on the priority of the bug that needs to be fixed. Finally, they fix the bug, develop error-free software, and deliver it to the customer.**

**29)Explain the difference between Functional testing and non Functional testing.**

**Ans:- functional testing:-1) Test the functionality of the software**

**2)It has to be done before Non-Functional Testing**

**3)It is also called as Behavioral Testing and focuses on the underlying application features**

**4)It can be done manually, though test cases**

**Non-functional:-1)Test the non-functional aspects or readiness of the the software including performance, usability, reliability**

**2)It will be done after Functional Testing completes.**

**3)Focuses on the performance of the application**

**4)It's hard to do it manually. It usually need**

**30)What determines the level of risk?**

**Ans:-As Risk is determined by a combination of Probability and Severity, the main area of the Matrix reveals the Risk Levels. The levels are Low, Medium, High, and Extremely High. To have a low level of risk, we must have a somewhat limited probability and level of severity.**

**1)Low Impact Low Probability.**

**2)Low Impact High Probability.**

**3)High Impact Low Probability.**

**4)High Impact High Probability**

**31)What is the difference between the STLC (Software Testing Life Cycle) and SDLC (Software Development Life Cycle)?**

**Ans:-Software Development Life Cycle(SDLC)**

**1)The main goal of SDLC is to deliver high-quality products and achieve seamless user experience through the Testing cycle**

**2)Coders create a well-organized Development Plan**

**3)Devs create the actual software**

**4)Product deployment (involves updates, post-maintenance)**

## Software Testing Life Cycle(STLC)

**1)In STLC, the most important objective is to write a functional Test Plan and carry out the testing process**

**2)QA team defines the Test Plan**

**3)Testers design Test Cases, set up the Environment, work out the RTM**

**4)QA team delivers Test results and Error metric**

**32)What is the difference between test scenarios, test cases, and test script?**

**Ans:Test Scenario:-**

**Is any functionality that can be tested.**

**Test Case:-**

**Is a set of actions executed to verify particular features or functionality.**

**Test Script:-**

**Is a set of instructions to test an app automatically.**

**33)Explain what Test Plan is? What is the information that should be covered.**

**Ans:-A Test Plan is a document describing the scope, approach, resources, and schedule of intended testing activities. It identifies test items, the features to be tested, the testing tasks and who will do each task (roles and responsibilities) and any risks and its solutions.**

**34)Write a scenario of only Whatsapp chat messages**

**Ans:-1. Verify that user can set chat wallpaper,**

**2. Verify that user set privacy settings like turning on/off last seen, online status, read receipts etc.**

**3. Verify that user can update notification settings like-notification sound, on/off, show preview For both group and individual chats.**

**4. Verify that user can take the complete chat backup of his chats. 5. Verify that user update his phone number that is used by whatsapp application.**

**6. Verify that user can disable/delete his whatsapp account.**

**7. Verify that user can check data usage by images, audio, video and documents in whatsapp chats**

**8)Verify the user can send and receive emotional icons in the individual chat boxes.**

**9)Verify the user can delete text, video, audio, locations, and documents in the individual chatboxes.**

**35)Write a Scenario of Pen**

**Ans:-1)Verify the type, whether it is a ballpoint, ink or gel pen**

**2)Verify the outer body, whether it should be metallic, plastic or any other material as per the specification**

**3)Verify that length, breadth, and other size specifications.**

**5)Verify that it is with a cap or without a cap**

**6)Verify that it has a rubber grip or not**

**7)Verify the colour of the ink.**

**8)Verify the colour.**

**9)Verify the size of the tip.**

**10)Verify the company name or logo of the maker is correct and at the desired place**

**11)Verify that it is smooth**

**12)Verify if the ink gets leaked in case it is tilted upside down**

**13)Verify if the pens get leaked at higher altitude**

**14)Verify the type of surfaces we can write at**

**15)Verify the effect of water, oil and other liquid on the text written**

**16)Verify the condition of ink after a long period of time is as per permissible specification or not**

**17)Verify that the ink is waterproof or not**

**18Verify that can we able to see a refill or not.**

**36)Write a Scenario of Pen Stand**

**Ans:-→verify the pen stand. Material use for make**

**→ verify  the material type like plastic for make pen stand. Wood or**

**→Verify the design the pen Stand.**

**→ verify the Space for Pen In pen Hand.**

**→ verify the height and weight for pen stand." Sen**

**→ verify the pen Stand usuable for home, office or for study material.**

**→Verify the Space for pen on the**

**→verify the dimension as per specification. Verify that we are able to lock and unlock the doorFor stand**

**37)Write a Scenario of Door**

**Ans:-1)Verify if the door is single door or bi-folded door**

**2)Verify that the dimension of the doors are as per the specifications**

**3)Verify that color of the door is as specified**

**4)Verify if the door is sliding door or rotating door**

**5)Verify if the door is having peek-hole or not**

**6)Verify if the door is having stopper or not**

**7)Verify if the door closes automatically or not – spring mechanism**

**8)Verify if the door makes noise when opened or closed**

**9)Verify that we are able to lock and unlock the door**

**10)Verify if someone knocking the door we are able to listen or not**

**11)Verify the door is water proof or not.**

**12)Verify that someone people knocking the door we are able to see**

**13) verify the position, quality and strength ofhinges**

**38)Write a Scenario of ATM**

**Ans:-1)Verify the slot for insertion of the ATM card.**

**2)Verify the unsuccessful operation due to inserting the ATM card in the wrong angle.**

**3)Verify the ATM screen as per specification or not.**

**4)Verify the text visible or not on the ATM screen.**

**5)Verify successful entry of PIN number.**

**6)Verify that the pin is encrypted when entered.**

**7)Verify operation due to entering the wrong PIN number 3 times**

**8)Verify the successful selection of a language.**

**9)Verify successful selection of account type.**

**10)Verify unsuccessful operation due to invalid account type.**

**11)Verify successful selection of Withdrawal operation in Atm machine**

**12)Verify the error message by inserting an invalid card (Expired Card)**

**13)Verify the error message by entering an incorrect PIN.**

**39)When to used Usablity Testing?**

**Ans:-1)Before Any Design Decisions Are Made.**

**2)When It's Time to Evaluate and Iterate.**

**3)After Launch.**

**4)In High-Risk, Low-Certainty Situations**

**40)What is the procedure for GUI Testing?**

**Ans:-1)Check you can execute the intended functionality of the application using the GUI**

**2)Check Error Messages are displayed correctly**

**3)Check for Clear demarcation of different sections on screen**

**4)Check Font used in application is readable**

**5)Check the alignment of the text is proper**

**6)Check the Color of the font and warning messages is aesthetically pleasing**

**7)Check that the images have good clarity**

**8)Check that the images are properly aligned**

**9)Check the positioning of GUI elements for different screen resolution.**

**41)Write a scenario of Microwave Owen**

**Ans:-1 Verify if after switching ON/OFF the power supply for the microwave the LED lights get switched ON/OFF**

**2 Verify the structure and dimensions of the microwave and see if it conforms to the specified dimensions mentioned in the user manual.**

**3 Verify if the buttons are available properly and the naming of buttons is clear.**

**4 Verify if the door is opened and closed properly and tightly**

**5 Verify the microwaves only work when the door is closed properly, it should not work if the door is left open.**

**6 Verify if the glass plate of the microwave rotates in a fixed and as specified in the requirement document speed.**

**7 Verify the microwave functions properly with the provided temperature.**

**8 Verify the microwave functions properly with the microwave compliant utensils.**

**9 Verify the lights inside the microwave gets switched ON when the ON button on the microwave screen is pressed.**

**10 Verify the glass plate starts rotating when the ON button on the screen is pressed.**

**11 Verify if the food items get heated up when the microwave is ON and there should be no 'hot spot' in the food.**

**12 Verify if the microwave works properly with different types of foods solid and liquid.**

**13 Verify if the microwave works properly with different types of foods solid and liquid.**

**14 The microwave device should function according to the specified microwave frequency and power.**

**15 Verify the microwave stops working itself once the provided time is over and the timer should get stopped.**

**16 Verify if the temperature inside the microwave oven is as provided by the setting chosen.**

**42)Write a scenario of Coffee vending Machine**

**Ans:-1.verify the coffee machine is working properly or not bs Switching ON power supply.**

**2.verify the coffee machine when power supply is improper.**

**3.verify the machine that all buttons are visible.**

**4.verify the indicator light that the machine is turned Of After switching on power supply.**

**5.Verify the machine when there is no water.**

**6.verify the machine when there is no coffee powder.**

**7.Verify the machine when there is no milk.**

**10.Verify the machine when there is no sugar.**

**8.Verify the machine operation when it is empty.**

**9.Verify the machine operation when all the ingredients are Upto the capacity level.**

**10.Verify the machine operation when water quantity is less Than its limit.**

**11.Verify the machine operation when milk quantity is less Than its capacity limit.**

**12.Verify the machine operation when coffee powder is less Than its capacity limit.**

**13.verify the machine operation when sugar available is Less than its capacity limit.**

**14.Verify the machine operation when there is metal piece Is stuck inside the machine.**

**15.verify the machine by pressing the coffee button and Check it is pouring coffee with appropriate mixture and Taste.**

**42)Write a scenario of chair**

**Ans:-1)verify the legs of the chair (count )**

**2)Verify that all leg of the chair on a plane surface is equal or not**

**3)Verify the chair backrest.**

**4)Verify the human ability to sit comfortably or not on a chair.**

**5)Verify that the chair able to sustain the load as per requirement or not.**

**6)Verify the material used in the making of the chair whether it is wood, plastic, iron, or other material.**

**7)Verify the sitting space in the chair is according to the requirement.**

**8)Verify that the chair has an armrest or not.**

**9)Verify the colour of the chair as per specification.**

**10)Verify the weight of the chair.**

**11)Verify the height of the chair from the surface.**

**12)Verify the type of chair whether it is**

**44)Write a Scenario of Wrist Watch**

**Ans:-1)Verify the type of watch – analog or digital.**

**2)Verify the material of the watch and its strap.**

**3)Verify the dimension of the watch is as per the specification.**

**4)Verify the weight of the watch.**

**5)Verify that the numbers in the dial are clearly visible or not.**

**6)Verify if the watch comes with any guarantee or warranty.**

**7)Varify belt or chain used is comfortable or not and it's length**

**8)Verify chain material and belt for damage.**

**45)Write a Scenario of Lift(Elevator)**

**Ans:-1)Verify the dimensions of the lift**

**2)Verify the type of door of the lift is as per the specification**

**3)Verify the type of metal used in the lift interior and exterior**

**4)Verify the capacity of the lift in terms of the total weight**

**5)Verify the time duration for which door remain open by default**

**6)Verify if lift interior is having proper air ventilation**

**7)Verify lighting in the lift**

**8)Verify that at no point lifts door should open while in motion**

**9)Verify that lift stops when up/down buttons at particular floor are pressed**

**10)Verify if there is an emergency button to contact officials in case of any mishap**

**11)Verify the performance of the floor – the time is taken to go to a floor**

**12)Verify that in case of power failure, lift doesn't free-fall and get halted in the particular floor**

**46)Write a Scenario of whatsapp Group (generate group)**

**Ans:-1) verify if an admin can add others as Admin.**

**2) verify admin can remove it from the group.**

**3) verify admin can add users to the group.**

**4) verify admin can restrict users.**

**5) Verify admin can remove others from admin.**

**6) verify if the admin can add people.**

**7) verify if the admin can add 250 people to a group.**

**8) verify the admin user able to add people with the invite link**

**9) verify the admin can delete people**

**10) verify if the admin user can able to delete people.**

**11) verify the admin user able to delete all people in the group**

**12)Verify the admin user can able to ban users.**

**47)Write a Scenario of instagram ( video call with chat )**

**Ans:-1) verify the Video call history of videos is available or not.**

**2)Verify the video call history is displayed with the date and time.**

**3) verify the video call history is displayed with updated time.**

**4) verify whether the search functionality is working properly or not.**

**5) verify whether the video call log is removed from the call history or not.**

**6) verify whether the video call log is blocked from the call history or not.**

**7) verify the new video call log is working for the new video call.**

**8) verify the user is able to call or receive WhatsApp video calls from the contact list.**

**9)Verify whether the User can see the time of comment in Chat with video call**

**10)Verify that Users can create a Chat with video call group or not**

**11)Verify that Users can see current Chat with video call/discussion in the group.**

**12)Verify that the Chat with video call application can display the device used to send messages.**

**48)Write a Scenario of Whatsapp payment**

**Ans:-1)Verify the input fields of the WhatsApp payment webpage are properly working or not.**

**2)Verify the Company name and the logo in the WhatsApp payment gateway portal.**

**3)Verify if credit/debit card is concealed or not.**

**4)Verify that all methods of WhatsApp payments are properly working.**

**5) verify the payment color and design matches the specification.**

**6)Verify if all the options of WhatsApp payment portable are accessible.**

**7)Verify that the debit/credit cards can automatically be accessed if added previously by the particular user.**

**8) verify the currency according to the country.**

**9) verify if items are added before proceeding with  WhatsApp payments.**

**10)Verify if the credit/debit cards used by the user for WhatsApp payment are not expired.**