1.What is the primary goal of manual testing?

a)To find defects in software

b)To automate the testing process

c)To reduce the time required for testing

d)To increase the efficiency of developers

2.Which of the following is NOT a phase of the manual testing process?

a)Test Planning

b)Test Execution

c)Test Automation

d)Test Closure

3.Which type of testing involves testing the software as a whole to ensure that all

components work together?

a)Unit Testing

b)Integration Testing

c)System Testing

d)Acceptance Testing

4.Which testing technique involves testing a system&#39;s functionality without knowing

its internal code structure?

a)White-box testing

b)Black-box testing

c)Gray-box testing

d)Glass-box testing

5.What is exploratory testing?

a)Testing based on pre-defined test cases

b)Testing without any specific test cases or plans

c)Testing only the critical functionalities

d)Testing performed by an external team

6.What is the result of my\_list[2] if my\_list = [10, 20, 30, 40]?

A) 10

B) 20

C) 30

D) 40

7.Which method is used to add an element to the end of a list in Python?

A) append()

B) insert()

C) extend()

D) add()

8.What does my\_list[::-1] do in Python?

A) Reverses the list

B) Returns the last element of the list

C) Sorts the list in descending order

D) Returns a copy of the list

9.Which data structure is used to store unique elements in Python?

A) List

B) Tuple

C) Set

D) Dictionary

10.How do you check if an element is present in a set?

A) Using contains()

B) Using in keyword

C) Using has()

D) Using exists()

11.What is the data type of the result in the following expression: 10 / 2?

a)int

b)float

c)str

d)bool

12.Which data type is used to represent a sequence of characters in Python?

a)int

b) float

c)str

d)list

13.What is the output of bool(“False”)?

a) False

b)True

c)TypeError

d )None

14.In Python, which data type is used to store an ordered collection of elements with

no duplicate values?

a) tuple

b) list

c) set

d) dictionary

15.What is the result of the expression 3 \*\* 2?

a) 5

b) 6

c)9

d) 27

16.What command is used to initialize a Git repository locally?

a) git clone

b) git init

c) git commit

d) git push

17.How can you check the status of your changes in a Git repository?

a) git status

b) git check

c) git diff

d) git log

18.What command is used to stage files for a commit in Git?

a) git add

b) git stage

c) git commit

d) git push

19.What is the purpose of forking a repository on GitHub?

a) To create a new branch in the original repository

b) To merge changes from one repository to another

c) To copy a repository under your GitHub account

d) To revert changes in a repository

20.What is a Pull Request used for in GitHub?

a) Requesting changes to be pulled into a repository

b) Submitting changes for approval and merging

c) Deleting branches in a repository

d) Checking the status of commits in a repository

1.What is git and github?

Git is a version control system.

Git helps to tasks of code changes.

Github:-

The changes of the code will be update and everyone use the code and modify the code .

2.What is CVCS and DVCS ?

3.Create a project of any and push the project

Git verision

Git inti

Git add.

Git commit - m “firstcommit”

Git branch status

Git

4.Define Software Development Life Cycle (SDLC) and briefly explain its primary

phases.

SDLC:-

It is stands for software development life cycle .SDLC is a process used by the software industry to design, develop and test high quality software.

it has 7 phases:-they are

1)Gathering requirements:-we gather the requirements for client side and we prepare a document that is document is know as a Business requirements specifications document.

2)analysis the requirements:-after complete the BRS document we analysis the what are the requirements we want like team, codes, plans etc.. and we prepare a document.

3)design:-we prepare a blue print by using the documents

4)coding:-what code is easy to implement the project like java,python,c ……

5)testing:-in the code any errors there or not to find verify like error, defects bugs etc..

6)deployment:-all the process will complete and check the requiements .and send soft copy to the client

7)maintance:-it is updating the requirements.

5.What are the main objectives of the Requirements Gathering phase in SDLC?

we gathering the requirements for client side and we prepare a document that is document is know as a Business requirements specifications document. after complete the BRS document we analysis the what are the requirements we want like team, codes, plans etc.. and we prepare a document.

6.Explain the significance of the Design phase in the SDLC process.

Using the documents we prepare a blue print what are requirements are used for this

There are two types of design:

High level design means designing the architecture of the application.

Low level design means how the each and every modules will look like.

7.Discuss the importance of thorough Testing during the SDLC.

It is a part of software development process. It is used for checking errors and gaps in the software.The objective of testing is to release quality product to the client. It test the code and verify it there is any errors in the code. If there is errors it return back to the design team. There 4 types of errors:-

1. Error
2. Bug
3. Defects
4. functions

8.Differentiate between Waterfall and Agile methodologies in SDLC. Highlight the

advantages and disadvantages of each.

Waterfall model:-

It can be used for small product.

It is also called as linear sequential development model.

Every phase is depend on previous phase.

Testing will start after the coding.

Analysis->design->code->testing->deployment->manitance

Agile Model:-

It can be used for large product.

It ability to the changes from requirements.

It is an iterative to develop a software or an application.

Advantages:

* Requirement changes are allowed at any stage of development.
* Releases will be very fast.
* Customers no need of waiting for longer time.
* It is very easy .

Disadvantages:

1.It is having less focus on design and documentation.

9.Write a Python program to calculate the area of a rectangle using user input for

length and width.

l=10

w=5

area=l\*w

print(area)

10.What is devops ?

It is a combination of developer team and operational team.

DevOps is the process of delivering the product/project by ensuring automation in place, ensuring the quality.

11.What is need of devOps?

To deliver the product or project on time. It is cost effective and It is deliver software faster, with higher quality and less risk.

12. What are the devOps tools:-

* Git
* Jekins
* Selenium
* Dockers
* Kubernetes
* terraform

13.Difference b/w break continue and pass ?

Break statement is used to terminate the current loop and resumes execution at the next statement, just like the traditional .

Syntax:-

looping statement:

condition check:

break

**Continue statement**:-

The continuestatement is just the opposite to that of break. It skips the remaining statements in the current loop and starts the next iteration.

Syntax:-

looping statement:

condition check:

continue

**Pass Statement:-**

pass statement is used when a statement is required syntactically but you do not want any command or code .

14. d/w remove , delete, pop and write an example program in

python to demonstrate 3 of them.?

Pop():it remove the element which placed as 1st element.

Remove():it remove a specific element from the set if the element.

Delete():-to delete the all elements in the set .

Ex:-pop()  
k = {1, 2, 3}  
element = k.pop()  
print(k)  
Ex:-remove()  
my\_set = {1, 2, 3}  
my\_set.remove(2)  
print(my\_set)  
  
15. D/w append and extend..?

append() Method:-

This method is used to add a single element to the end of a list.

Ex:-

a = ['geeks', 'for']

a.append('geeks')

print(a)

extend() Method:-Thismethod is used to add all elements to the end of the current list.

Ex:-

a = ['geeks', 'for']

b = [6, 0, 4,5]

a.extend(b)

print(a)