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'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?

2.What is CVCS and DVCS ?

3.Create a project of any and push the project

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

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

8.Differentiate between Waterfall and Agile methodologies in SDLC. Highlight the advantages and disadvantages of each.

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

10.What is devops ?

11.What is need of devOps?

12.What are the devOps tools?

13.Difference b/w break continue and pass ?

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

python to demonstrate 3 of them.?

15. D/w append and extend..?

**Answers**

4. **Software Development Life Cycle (SDLC):** it is process of testing ,design, deployment of application or product there are different types of SDLC

1.Analysis: it is used to the analysis based on client requirement to prepare document for application.

2. Design: it is used to design arctechire of the project and we can use high level coding and low level coding based on client requirement.

3.development: the developers are write for product to build the product.

4.testing:tester do the testing to find detect and the errors to improve the quality.

5.deployment: it is used to released the application for customers and it will use the different customers over the internet.

6.maintaince: it used to get nay update and defect ,errors to fix it .

**primary phases:**

**1.**water fall model: it is follow the step by step .

Client cannot see the project and client can see project end.

It has fixed structure.

It cannot change based on client requirement.

2.v-shape model: it is verification and validation is called v-shape model.

3.spiral model.: it is iterative model

It overcome drawbacks in water fall model.

It used to realesed the new software for custormers.

4.incremental model: In increament models have multiple uses like analysis,design, testing etc.

1. git :it is central repository to store the all projects .

Git is also called Vcs

Git is used to combine the all developer to push code.

We can change the any project by using the git commend.

Github:it is exstenction of the git .

It is store the projects.

We can change the any project by using the git commend.

it remote repository it excuited the in hand of gitlab.

Git is used to combine the all developer to push code.

**2. CVCS and DVCS :**

Cvcs:it centralized version control system.

It is used to manage the all projects .

It slower then the DVCS

DVCS:distribution version control system

it used to manage the remote repository to local repository.

It faster then the CVCS.

It esaey push code.

**3.Create a project of any and push the project**

**Git status**

Git init.

Git add . or git name.

Git commit –m” “

Git branch

Git branch –M “”

Git remote add origin URL

Git push –u origin

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

**10.What is devops ?**

Devops: it development And operation is called devops.

Develops process of project /product to deliver the ensuring planning and continuous monitoring and continuous integration , continuous testing.

It used to follow CI/CD.

**8.What is need of devOps?**

it development And operation is called devops.

It is follows the CI/CD.

It deliver the product on time.

It fast development, testing

Develops main goal for fast deliver.

**11.Write a Python program to calculate the area of a rectangle using user input for length and width.**

a=10  
b=20  
c=a\*b  
print(c)

output: 200

**12.What are the devOps tools?**

Plainnig:git,jira

Development: maven

Integration:Jenkins

Testing: selenium with python.

Maintains: Ansilble,Dokers,kubernets

**13.Difference b/w break continue and pass ?**

Break: it is use the break the statement when the statement is true terminated loop.

Just pull out the correct statement.

Continue: it use to skip the current statement and to continue the next iteration .

Pass: it is use to pass the statement and loop of program to continue pass stament.

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

Remove: it is use to remove the specific element in the list is called remove.

Delete: it is use to delete the all elements in the list and specific element in the list is called delete.

Pop:it is use to retrieve the last element in the list and specific element in list is called pop.

list=[1,2,3,4,5]  
l=list.pop()  
print(l)

output:5

list=[1,2,3,4,5]  
del list  
print(list)

output:[]

list=[1,2,3,4,5]  
list.remove(3)  
print(list)

[1, 2, 4, 5]

**15. D/w append and extend..?**

Append():it used to add element specific position in list and it add element in list last only.

Extend(): it use to insert into second list to first list is called Extend.

8.Differentiate between Waterfall and Agile methodologies in SDLC. Highlight the advantages and disadvantages of each.

**Waterfall model:**

it is follow the step by step .

Client cannot see the project and client can see project end.

It has fixed structure.

It cannot change based on client requirement.

Advantages: it deliver the project on time

It is provided good quality of code

it can see the at end of the project only.

Disadvantages :

It take time more for testing

Client can see the project end .

It take more time.

**Agile methodologies**

It use to do continuous testing.

It combine to work developer and testing.

Client can see the project at any time.

It fast testing compare to water fall model.

It will provide good quality of code.

It is flexbile

Advatages: it can see client project at any time

It will deliver the project on time.

They need experice testers

It is time consume.

Disadvatages :

It use experienced tester.

It take time comsume.

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

**SDLC:**

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

In sdlc is process of