ANSWER

1. Version control systems are software tools that help software teams manage changes to source code over time. It helps to track different versions of your code and collaborate with other developers.

2. The responsibility of the version control system is to keep all the teams members on the same page.
It makes sure that everyone on the team is working on the latest version of the file and the most importantly makes sure that all these people can work simultaneously on the same projects.

3. Types of version control system
i) Local Version control system - It is one of the simplest forms and has a database that kept all the changes to files under revision control. RCS is one of the most common VCS tools. It keeps patch sets (differences between files) in a special format on disk.

ii) Centralised Version Control system - It contains one repository globally and every user need to commit for reflection one changes in the repository . Is is possible for others to see your change by updating.

iii) Distributed Version Control system - It contains multiple repositories. Each user has their has own repositories and working copy, Just committing your change will not give others access to your changes.

4.
i) Centralised Version Control system
- There are no local repositories
- Always required internet connection
- A failure in the central server terminate all the versions.

ii) Distributed Version Control system
- There are local repositories .
- Developers can work on a local repository without an internet connection.
- A failure in the central server cannot affect the development.

5.
Git is a distributed version control system.
Tracking change in any set of files usually used for coordinating work among programmers collaboratively developing source code during software development.

6.
- Free and open source
- Create backup
- Branching is easier
- Support collaboration

7.

- Git clone

It is use for downloading existing source code from a remote repository.

- Git branch

By using branches several developers are able to work in parallel on the same project simultaneously.

- Git status

It gives us all the necessary information about the current branch.

8.
No, git is not same as github.
Because git is a version control system that let you manage and keep track of your source code history and Github is a cloud based hosting services that lets you mange git repositories.

9.
git –version

10.
git add “name”

11.
Git log command displays committed snapshot.
Git status lets you inspect the working directory and the staging area.

12.
git init

13.

- Committed - This state indicate that the file is safely stored int the local database.
- Modified - When any change to the file occurs the state of the file changes from committed to modified.
- Staged - When we are finished with all the modification to our file, it moves to the staged state.

14.
False

15.
git commit

16.
git commit -m “New-Email”

17.

18.
In git a branch is a new version of the main repository.
Branch allow you to work on different parts of the projects without impacting the main branches.

19.
git branch New-emali

20.
Git checkout new-email

21.
Git checkout -b “branch name”

22.
Create a new repository

23.
A fork create a completely copy of Git repository .
In contrast to a fork a git clone create a linked copy that will continue to synchronize with the target repository.

24.
Git push command is used to upload local repository content to a remote repository.
Pushing is how you transfer commit from your local repository to a remote repository.

Git push -u origin “branch name”