1. Define a user in a Linux environment ?

An entity in a linux operating system that can manipulate files and perform several other operations is user.

1. Define a group in a Linux environment ?

The collection of users who can share files and other system resources is group.

1. UID stands for user ID
2. GID stands for group ID
3. Which command can be to login as a different user ?

su command is used to login as a different user

1. \_ is a special administrate group in a Red Hat linux ?
2. What is the use if sudo command in Red Hat linux ?

Sudo command offers another approach to giving users administrative access

1. What is shadow password ? What is its advantages ?

A shadow is **a system file in Linux that stores encrypted user passwords and is accessible only to the root user, preventing unauthorized users or malicious actors from breaking into the system**

* Improved system security by moving the encrypted passwords (normally found in /etc/passwd) to /etc/shadow which is readable only by root
* Information concerning password aging (how long it has been since a password was last changed)
* Control over how long a password can remain unchanged before the user is required to change it
* The ability to use the /etc/login.defs file to enforce a security policy, especially concerning password aging
* Industry-standard methods of adding, deleting and modifying user accounts (useradd, usermod, and userdel)
* Industry-standard methods of adding, deleting, and modifying user groups (groupadd, groupmod, and groupdel)

1. Explain the procedure to create a active user in a linux system ?

To create active users:

The general syntax for the useradd command is as follows:

useradd [OPTIONS] USERNAME

Only root or users with [sudo](https://linuxize.com/post/sudo-command-in-linux/) privileges can use the useradd command to create new user accounts.

When invoked, useradd creates a new user account according to the options specified on the command line and the default values set in the /etc/default/useradd file.  
useradd also reads the content of the [/etc/login.defs](http://man7.org/linux/man-pages/man5/login.defs.5.html) file. This file contains configuration for the shadow password suite such as password expiration policy, ranges of user IDs used when creating system and regular users, and more.

1. Explain the procedure to create a group in the system and adding a user in that group ?

To create group groupadd command is used with group name

groupadd mygroup

The usermod command adds a user to a Linux group. -a -G flags should be used to add an existing user account to a group. The syntax for the usermod command is: usermod -a -G groupname username.

sudo usermod -**a** -G group\_to\_add username

* The *-a*flag tells usermod to add a user to a group.
* The *-G*flag specifies the name of the secondary group to which you want to add the user

You need to use the sudo command to use usermod

sudo usermod ...

Adding user to a group

EX:

If u want add a user Ram to a group you can do so by using command

sudo usermod -**a** -G sudo Ram

this command will add Ram to the sudo group

1. What significance of group directories in linux environment explain ?

 They can be used to provide a set of users with access to files without giving all users access to the files. Group directory will be specific to that specified group the group users and the group owner can only access the directory. Here any file that is created in the directory can only be accessed by the owner of the file and the group user owner.

1. Demonstrate the procedure to create a group directory and set its GID group of directory work on particular directory ?

* First we create the objects needed. Let’s create the project directory

mkdir/opt/mydir

* And our twousers, **sarah** and **john**,using the [useradd](https://linuxconfig.org/add-user-linux-command" \t "_blank) command:

Useradd sarah

Useradd john

* We also need to create a user group that will allow collaboration between it’s members:

Groupadd mygroup

Setting ownership as root to users: chown root:mygroup/opt/mydir

Permissions: chmod770/opt/mydir

* Group id can be set using gid so that file can be accessed only by the members

1. Explain the procedure to restrict the access to su command only to few users ?

To restrict the use of sudo command we can add trusted users in the “wheel” group. Usermod -a -g wheel username

And modify pluggable authentication module (PAM) config file.

Thn Uncomment the lines inside of the file “#character auth required

pam\_wheel

1. What is the use of sudo command in Red Hat Linux ?

Sudo command is in Linux is generally used as a prefix of some command that only superuser are allowed to run. If you prefix **“sudo”** with any command, it will run that command with elevated privileges or in other words allow a user with proper permissions to execute a command as another user, such as the superuser. This is the equivalent of “run as administrator” option in Windows. The option of sudo lets us have multiple administrators.   
These users who can use the **sudo** command need to have an entry in the **sudoers** file located at **“/etc/sudoers”**. Remember that to edit or view the sudoers file you have to use sudo command. To edit the sudoers file it is recommended to use “visudo” command