1. Name the utility used for registering a Red Hat enterprise server.

The register command is used for registering to Red Hat enterprise server. Run the following command to register your system. You will be prompted to enter your user name and password

**subscription-manager register**

1. How to find the attached subscriptions for a enterprise server?

To display a list of all subscriptions that are available for your system:

**subscription-manager list --available**

For each available subscription, this command displays its name, unique identifier, expiration date, and other details related to your subscription. To list subscriptions for all architectures, add the **--al l** option.The pool id is specified on the line beginning with:

**Pool ID**

**subscription-manage r attach --pool= *pool\_id***

1. Which is the tool used for installing and managing the software in Red Hat enterprise server?

Yum is a primary package management tool for installing , updating and managing the software in Red Hat enterprise server.

1. How will you find the available updates for the current server?

To see which installed packages on your system have updates available

yum check-update

1. Give the command used for installing software locally.

RPM is a utility for installing software on Red Hat linux

6.What is the significance of baseurl in repo cinfig file?

Baseurl is **the location of the repository’s files.**

1. Give the procedure to register as well as subscribe appropriate Red Hat enterprise server.

**Registering the System and Attaching Subscriptions**

The steps to register and subscribe to Red Hat enterprise server:

The subscription manager commands are supposed

To be run as root

Run the following command to register your system. You will be prompted to enter your user name and password. Note that the user name and password are the same as your login credentials for Red Hat Customer Portal.

**subscription-manager register**

• Determine the pool ID of a subscription that you require. To do so, type the following at a shell prompt to display a list of all subscriptions that are available for your system:

**subscription-manager list --available**

For each available subscription, this command displays its name, unique identifier, expiration date, and other details related to your subscription. To list subscriptions for all architectures, add the **--al l** option. The pool ID is listed on a line beginning with

**Po o l ID** .

• Attach the appropriate subscription to your system by entering a command as follows:

• Attach the appropriate subscription to your system by entering a command as follows:

**subscription-manage r attach --pool= *pool\_id***

To verify the list of subscriptions your system has currently attached at run time

**subscription-manager list --consume d**

2. Update a Red Hat enterprise server with all available updates one by one.

Yum enables you to check if your system has any updates waiting to be applied. You can list packages that need to be updated and update them as a whole, or you can update a selected individual package

**Checking For Updates**

To see which installed packages on your system have updates available, use the following command:

**yum check-update**

The output of **yum check-update** can look as follows:

~]# **yum check-update**

Loaded plugins: product-id, search-disabled-repos, subscription-manager dracut.x86\_64 033-360.el7\_2 rhel-7- server-rpms

dracut-config-rescue.x86\_64 033-360.el7\_2 rhel-7-server rpms

kernel.x86\_64 3.10.0-327.el7 rhel-7-server rpms

rpm.x86\_6 4 4.11.3-17.el7 rhel-7-server rpms

rpm-libs.x86\_64 4.11.3-17.el7 rhel-7-server rpms

rpm-python .x86\_6 4 4.11.3-17.el7 rhel-7-server rpms

yum.noa rc h 3.4.3-132.el7 rhel-7-server rpms

The packages in the above output are listed as having updates available. The first package in the list is **dracut**

**dracut** — the name of the package,

**x86 \_6 4** — the CPU architecture the package was built for,

**0 33** — the version of the updated package to be installed,

**36 0.el7**—the release of the updated package,

**\_2** — a build version, added as part of a z-stream update,

**rhe l-7-server-rpms** — the repository in which the updated package is located

The output also shows that we can update the kernel yum and RPM themselves as well as their dependencies (such as the *rpm-libs*, and *rpm-python* packages), all using the **yum** command.

**Updating Packages**

You can choose to update a single package, multiple packages, or all packages at once. If any dependencies of the package or packages you update have updates available themselves, then they are updated too

**Updating a Single Package**

To update a single package, run the following command as **root**:

**yum update** *package\_name*

**Example of Updating the rpm package**

To update the *rpm* package, type:

~]# **yum update rpm**

Loaded plugins: langpacks, product-id, subscription-manager Updating Red Hat repositories.

INFO:rhsm-app.repolib:repos updated: 0

Setting up Update Process

Resolvin g Dependen cie s

--> Running transaction check

---> Package rpm.x86\_64 0:4.11.1-3.el7 will be updated

--> Processing Dependency: rpm = 4.11.1-3.el7 for package: rpm-libs 4.11.1-3.el7.x86\_64

--> Processing Dependency: rpm = 4.11.1-3.el7 for package: rpm-python 4.11.1-3.el7.x86\_64

--> Processing Dependency: rpm = 4.11.1-3.el7 for package: rpm-build 4.11.1-3.el7.x86\_64

---> Package rpm.x86\_64 0:4.11.2-2.el7 will be an update --> Running transaction check

...

--> Finished Dependency Resolution

Dependencies Resolved

====================================================================== =======

Package Arch Version

Repository Size

====================================================================== =======

Updating:

rpm x86\_64 4.11.2-2.el7 rhel 1.1 M

Updating for dependencies:

rpm-build x86\_64 4.11.2-2.el7 rhel 139 k

rpm-build-libs x86\_64 4.11.2-2.el7 rhel 98 k

rpm-libs x86\_64 4.11.2-2.el7 rhel 261 k

rpm-python x86\_64 4.11.2-2.el7 rhel 74 k

Transaction Summary

====================================================================== =======

Upgrade 1 Package (+4 Dependent packages)

Total size: 1.7 M Is

this ok [y/d/N]:

This output contains several items of interest:

2. **Loaded plugins: l ang packs, product-id , subscription-manager** — Yum always informs you which yum plug-ins are installed and enabled.

3. **rpm. x86 \_6 4** — you can download and install a new *rpm* package as well as its dependencies. Transaction check is performed for each of these packages.

4. Yum presents the update information and then prompts you for confirmation of the update; yum runs interactively by default. If you already know which transactions the **yum**command plans to perform, you can use the **-y** option to automatically answer **yes** to any questions that yum asks (in which case it runs non-interactively). However, you should always examine which changes yum plans to make to the system so that you can easily troubleshoot any problems that might arise. You can also choose to download the package without installing it

Similarly, it is possible to update a package group. Type as **root**:

**yum group update** *group\_name*

**Updating All Packages and Their Dependencies**

To update all packages and their dependencies, use the **yum update** command without any arguments:

**yum update**

3. What is the significance of command yum update –security?

**Updating Security-Related Packages**

If packages have security updates available, you can update only these packages to their latest versions. Type as **root**:

**yum update --security**

You can also update packages only to versions containing the latest security updates Type as **root**:

**yum update-minimal --security**

For example, assume that:

the *k ernel-3.10.0-1* package is installed on your system;

the *k ernel-3.10.0-2* package was released as a security update;

the *k ernel-3.10.0-3* package was released as a bug fix update

4. Give the procedure to update a system in offline mode.

For systems that are disconnected from the Internet or Red Hat Network, using the **yum update** command with the Red Hat Enterprise Linux installation ISO image is an easy and quick way to upgrade systems to the latest minor version. The following steps illustrate the upgrading process:

1. Create a target directory to mount your ISO image. This directory is not automatically created when mounting, so create it before proceeding to the next step. As **root**, type:

**mkdir** *mount\_dir*

Replace *mount\_dir* with a path to the mount directory. Typically, users create it as a subdirectory in the **/media** directory.

2. Mount the Red Hat Enterprise Linux 7 installation ISO image to the previously created target directory. As **root**, type:

**mount -o loop** *iso\_name mount\_dir*

Replace *iso\_name* with a path to your ISO image and *mount\_dir* with a path to the target directory. Here, the **-o loop** option is required to mount the file as a block device.

3. Copy the **media.re po** file from the mount directory to the **/e tc/yum.re pos.d/** directory. Configuration files in this directory must have the *.repo* extension to function properly

**cp *mount\_dir*/media.repo /etc/yum.repos.d/*new.repo***

5. Describe the procedure to locally install a package.

To install a single package and all of its non-installed dependencies, enter a command in the following form as **root**:

**yum install** *package\_name*

You can also install multiple packages simultaneously by appending their names as arguments. To do so, type as **root**:

**yum install** *package\_name package\_name*…

If you are installing packages on a *multilib* system, such as an AMD64 or Intel64 machine, you can specify the architecture of the package (as long as it is available in an enabled repository) by appending *.arch* to the package name:

**yum install** *package\_name.arch*

**Example 7.10. Installing packages on multilib system**

To install the *sqlite* package for the **i6 86** architecture, type:

~]# **yum install sqlite.i686**

You can use glob expressions to quickly install multiple similarly named packages. Execute as **root**: **yum install** *glob\_expression*…

**Example 7.11. Installing all audacious plugins**

Global expressions are useful when you want to install several packages with similar names. To install all audacious plug-ins, use the command in the following form:

~]# **yum install audacious-plugins-\\***

In addition to package names and glob expressions, you can also provide file names to **yum  install** . If you know the name of the binary you want to install, but not its package name, you can give **yum install** the path name. As **root**, type:

**yum install /usr/sbin/na me d**

Yum then searches through its package lists, finds the package which provides **/usr/sbi n/named** , if any, and prompts you as to whether you want to install it.

As you can see in the above examples, the **yum install** command does not require strictly defined arguments. It can process various formats of package names and glob expressions, which makes installation easier for users. On the other hand, it takes some time until **yum** parses the input correctly, especially if you specify a large number of packages. To optimize the package search, you can use the following commands to explicitly define how to parse the arguments:

**yum install-n** *name*

**yum install-na** *name.architecture*

**yum install-nevra** *name-epoch:version-release.architecture*

With **install -n**, **yum** interprets *name* as the exact name of the package. The **install -na** command  tells **yum** that the subsequent argument contains the package name and architecture divided by the dot character.

6. Give the significance of subscription-manager tool.

* It also tracks subscription expirations and automatically attaches new subscriptions based on the products and hardware
* Red Hat Subscription Manager is an on-premise application that sends information back to the Red Hat Customer Portal about your subscription usage
* It communicates with the backend subscription service and works with content management tools such as yum
* Red Hat Subscription Manager is installed on a local system and it tracks what products are installed, what subscriptions are available for the system, and what subscriptions are actually used by the system
* Both registration and subscriptions are managed on the local system through UI and CLI tools called Red Hat Subscription Manager
* The Red Hat Subscription Manager tools are always run as root because of the nature of the changes to the system

7. What is yum tool? Give its significance

**Yum** is the Red Hat package manager that is able to query for information about available packages, fetch packages from repositories, install and uninstall them, and update an entire system to the latest available version

* Yum can be configured with new, additional repositories, or package sources, and also provides many plug-ins which enhance and extend its capabilities
* Yum enables easy and simple package management on a single machine or on groups of them
* Yum provides secure package management by enabling GPG (Gnu Privacy Guard; also known as GnuPG) signature verification on GPG-signed packages to be turned on for all package repositories (package sources), or for individual repositories.
* When signature verification is enabled, yum will refuse to install any packages not GPG-signed with the correct key for that repository
* It means we can trust that the **RPM** packages you download and install on your system are from a trusted source, such as Red Hat
* Yum also enables you to easily set up your own repositories of **RPM** packages for download and installation on other machines