1. What is a hard link?

This is a separate virtual file that contains information about the original file and where to locate it. The original file must pre-exist to create the hard link.

2. What is a symbolic link?

This is a physical file that points to another file that is virtual located somewhere in the virtual directory structure. The contents in the two linked files are not the same and they are two physically separate files.

3. List three characteristics of a hard link.

    a. The linked files have the same inode number.

    b. The file exists until the last link is removed.

    c. Hard links cannot be made across file systems.

4. List three characteristics of a symbolic link.

     a. The two files have separate inode numbers.

     b. The link can be between directories

     c. The symbolic link gets removed when the original file pointing to it is removed.

5. What does the history command do?

 It gives a list of recently executed commands in the shell.

6. List the function of the tail command.

‘tail’ command gives the last part of a file (by default the last 10 lines of a file) or it can be used with another command to look at just the last part of that command’s output.

tail [OPTION]…[FILE]…

history | tail

7. List the function of the head command.

‘head’ command gives the first part of a file (by default the first 10 lines of the file’s content) or it can be used with another command to look at just the first part of that command’s output.

head [OPTION]…[FILE]…

history | head

8. How would you find the first 14 lines of a file?

 head -14 file\_name

9. What is the difference between 'searching' and 'sorting'?

Searching is looking through files for specific data whereas sorting is ordering and organization of data.

10.  What is a process?

 This is a running program.

11. How do you find running processes on the system?

By using ‘top’ command

12. How would you kill a running process with the PID of 1325 ?

 By using the command ‘kill 1325’

13. What does it mean to 'compress' data ?

 A larger file can be made smaller in terms of the size, so it takes less space in the filesystem and faster to send through network.

14. What is the difference between copy(cp) and move(mv) ?

The ‘cp’ command will create a new file and keep the original file where as the ‘mv’ command will move the original file to the specified destination.

15. What does it mean to 'archive'  a file or archive data ?

Many files are combined to create a single file and information about how these archived files can be restored.