

### Linux 200+ Technical Interview Questions:

*In some questions I am encouraging to search online because it will help you practice for searching more complicated questions in the future*

*(Good Luck)*

1. When you login you get "\$" prompt, what is the prompt for root?  
**#**
2. Explain the difference between grep and egrep?  
**Search online**
3. What is the port # for DNS, NTP and NFS?  
**53,123 and 111/2049**
4. What is the configuration file name of DNS and where is it located?  
**/etc/named.conf**
5. How many new directories will be created after running the following command  
mkdir {a..c}{1..3}  
**9**
6. Your PC is configured with a DNS server address but not the default gateway. Can the PC access internet?  
**No**
7. What is the difference between IP and Gateway?  
**Search online**
8. Can you assign one static IP to 2 computers, if not then why?  
**No because it will create IP conflict**
9. How to change IPs address to static?  
**ifconfig x.x.x.x**
10. You are trying to ping a server by hostname and you get an error message, "ping: unknown host ...". What could be the reason and how to solve the problem so you can ping it by hostname?  
**Check for /etc/hosts or DNS to see if it has hostname to IP entry**
11. Explain the difference between relative and absolute path?  
**Absolute path starts from / where relative path is your current directory**
12. List 3 different methods of adding user?  
**Search online**
13. What is the command to change file/directory ownership and group?  
**chown and chgrp**
14. List any 3 type of filesystem?  
**ext4,NTFS and FAT**

15. When you login you get a message on the screen. What is the name of that file and where is it located?  
**/etc/motd**
16. What is /bin directory used for?  
**Search online**
17. What are the different types of DNS Server  
**Master and secondary**
18. How to change a user password?  
**passwd username**
19. What is the version of Redhat Linux you have experience with?  
**7.4**
20. List any 4 linux distributions?  
**Redhat, CentOS, Ubuntu and SUSE**
21. How to logoff from the system?  
**exit**
22. Give any 3 examples of operating systems?  
**Windows, Linux and MAC**
23. How to create a directory?  
**mkdir**
24. Where are the zone files located for DNS service?  
**/var/named/zonefiles**
25. How to check kernel version?  
**uname -a**
26. Which directory has all the configuration files?  
**/etc**
27. How to become root user from a regular user?  
**su -**
28. How many mega bytes in 1 giga bytes?  
**Search online**
29. What is the purpose of having different network ports?  
**So the communication of each application goes through a dedicated port**
30. How to display first column of a file?  
**cat filename | awk '{print \$1}'**
31. What is the name of DNS rpm package?  
**bind**
32. What is the difference between nslookup and dig commands?  
**Search online**
33. How to check your user id and group id?

**id**

- 34. How to check a file's permission?  
**ls -l**
- 35. What is the difference between "kill" and "kill -9" command?  
**Search online**
- 36. What is subnet?  
**Search online**
- 37. You are troubleshooting an issue with Redhat support and they have asked you to send the contents of /etc directory. How and which method you will use to transfer the contents?  
**tar (compress) the entire /etc directory and ftp**
- 38. What is root home directory?  
**/root**
- 39. What is rsyslogd daemon and its purpose?  
**Search online**
- 40. Your company has terminated a server administrator. What is first thing as an administrator you should do to enhance the security?  
**Change root password**
- 41. How to check the computer name or host name in Linux?  
**hostname**
- 42. Which permission allows a user to run an executable with the permissions of the owner of that file?  
**First 3 bits should have x**
- 43. What is the command to untar a tarred file?  
**untar**
- 44. What is /proc directory used for?  
**Search online**
- 45. What is the purpose of nsswitch.conf file  
**It tells the system where to go to resolve hostnames**
- 46. List 3 basic commands to navigate the filesystem?  
**cd, pwd and ls**
- 47. Which service/daemon should be running on the server that allows you to connect remotely?  
**sshd**
- 48. What is the purpose of firewall?  
**Search online**
- 49. List any 3 IT components?  
**Hardware, OS and Applications**
- 50. Which directory has all the commands we use, e.g. ls, cd etc.?  
**/usr/bin or /bin**

51. What is the difference between memory, virtual memory and cache?  
**Search online**
52. Which of the following is correct?  
a. **Hardware → Operating System → Users**  
b. Operating System → Users → Hardware  
c. Database → Hardware → Users
53. Which of the following is a communication command?  
o grep  
o **mail**  
o touch  
o cd
54. How to rename a file or directory?  
**mv**
55. How to change a hostname in Linux?  
**Search online**
56. How to check network interfaces in Linux?  
**ifconfig**
57. Why is "tail -f logfilename" command used most often and what does it do?  
**It will output all incoming logs in real time**
58. What type of hardware have you worked on?  
**You should get yourself familiar with Dell, HP and UCS hardware by going online and check the vendor websites**
59. How to sort a file in reverse order?  
**cat filename | sort -r**
60. What is the name of operating system that runs Unix?  
**Solaris, HP-UX etc.**
61. List all byte sizes from smallest to largest?  
**Search online**
62. How to check the total number of partition in Linux?  
**fdisk -l**
63. How to access a linux system from a linux system?  
**ssh**
64. Explain the procedure of bonding 2 NICs or interfaces together?  
**Search online**
65. What is the exact command syntax to list the 5<sup>th</sup> column of a file and cut the first 3 letters?  
**cat filename | awk '{print \$5}' | cut -c1-3**
66. What is /etc/hosts file used for?  
**To resolve hostnames with IP address**

67. List any 3 options of 'df' command and what they are used for?  
**Search online**
68. What is the command to change file/directory permissions?  
**chmod**
69. What is the purpose of pipe (|)?  
**To combine multiple commands**
70. What is /etc directory used for?  
**For configuration files**
71. Which command is used to list files in a directory?  
**ls -l**
72. There is a command which gives you information about other commands, please explain that command and what is it used for?  
**man**
73. How to delete a file and a directory?  
**rm filename and rmdir dirname**
74. What is the difference between "tail" and "tail -10"?  
**None**
75. List 4 commands to display or read a file contents?  
**cat, more, less, vi**
76. Which command is used to read the top 5 lines of a file?  
**head -5 filename**
77. What are the different commands or methods to write to a file?  
**echo > filename and vi filename**
78. What is swap space and how to check swap space?  
**Search online**
79. What is inode and how to find an inode of a file?  
**Search online**
80. Which file to edit for kernel tuning?  
**Search online**
81. What is the latest version of Redhat?  
**Search online**
82. Name the command to find specific word from a file?  
**grep word filename**
83. You have scheduled a job using crontab but it does not run at the time you specified, what could be the reason and how would you troubleshoot?  
**Check your system time**  
**Check your crontab entry**  
**Check /var/log/messages**
84. How to check system hardware information?

## **dmidecode**

85. How to check network interface MAC address?  
**ifconfig**
86. If I don't want others to read my file1, how to do that?  
**Remove r from the last 3 bits of file permission**
87. What is the purpose of "uniq" and "sed" command?  
**Search online**
88. Which command is used to list the contents of a directory in the most recent time and in reverse order, meaning the most updated file should be listed on the bottom?  
**ls -ltr**
89. What is the difference between tar, gzip and gunzip?  
**Search online**
90. What are the different ways to install an OS?  
**DVD, DVD iso and network boot**
91. How to view difference between two files?  
**diff file1 and file2**
92. You noticed that one of the Linux servers has no disk space left, how would you troubleshoot that issue?  
**If running LVM then add more disk and extend LVM**  
**If not running LVM then add more disk, create a new partition and link the new partition to an existing filesystem**
93. How to check Redhat version release?  
**uname -a or /etc/redhat-release**
94. What is the difference between TCP and UDP?  
**Search online**
95. What is a zombie process?  
**Search online**
96. How do you search for a pattern/word in a file and then replace it in an entire file?  
**sed command**
97. Explain the purpose of "touch" command?  
**To create an empty file**
98. If a command hangs, how to stop it and get the prompt back?  
**Ctrl C**
99. Which command is used to count words or lines?  
**wc**
100. How to check the number of users logged in?  
**who**
101. What is the command to view the calendar of 2011?

**cal 2011**

102. Which command is used to view disk space?  
**df -h**
103. How to create a new group in Linux?  
**groupadd**
104. What is the command to send a message to everyone who is logged into the system?  
**wall**
105. Which command is used to check total number of disks?  
**fdisk -l**
106. What is an mail server record in DNS?  
**MX**
107. What does the following command line do?  
`ps -ef | awk '{print $1}' | sort | uniq`  
**List the first column of all running processes, sort them and remove duplicates**
108. You get a call that when a user goes to [www.yourwebsite.com](http://www.yourwebsite.com) it fails and gets an error, how do you troubleshoot?  
**Check for user internet**  
**Check to see if user computer has DNS for hostname lookup**  
**Check to see if the server is up that is running that website**  
**Check to see if the server's web service is running**  
**Check for DNS availability which is resolving that website**
109. List 4 different directories in /?  
**/etc, /bin, /tmp, /home**
110. What is the output of the following command:  
`$tail -10 filename | head -1`  
**It will show the first line from the last 10 lines of a file**
111. What are the different fields in /etc/passwd file?  
**Search online**
112. Which command is used to list the processes?  
**ps -ef**
113. What is the difference between "hostname" and "uname" commands?  
**Hostname will give you system name and uname will give you OS information**
114. How to check system load?  
**top and uptime command**
115. How to schedule jobs?  
**crontab and at**
116. What is the 3rd field when setting up crontab?  
**Day of the month**

117. What is the command to create a new user?  
**useradd**
118. What is the "init #" for system reboot?  
**6**
119. How to restart a service?  
**systemctl restart servicename**
120. How to shutdown a system?  
**shutdown or init 0**
121. What is "ftp" command used for?  
**To transfer files from one computer to another**
122. Explain cron job syntax? First is minute, second is..?  
**Min, house, day of the month, month, day of the week and command**
123. How to delete a package in Linux?  
**rpm -e packagename**
124. What is the file name where user password information is saved?  
**/etc/shadow**
125. Which command you would use to find the location of chmod command?  
**which chmod**
126. Which command is used to check if the other computer is online?  
**ping othercomputer**
127. Please explain about LAN, MAN and WAN?  
**Search online**
128. How to list hidden files in a directory?  
**ls -la**
129. What is the difference between telnet and ssh?  
**ssh is secure where telnet is not**
130. How to run a calculator on Linux and exit out of it?  
**bc and quit**
131. List any 4 commands to monitor system?  
**top, df -h, iostat, dmesg**
132. You are notified that your server is down, list the steps you will take to troubleshoot?  
**Check the system physically**  
**Login through system console**  
**Ping the system**  
**Reboot or boot if possible**
133. What is difference between static and DHCP IP?  
**Search online**
134. How to write in vi editor mode?  
**i = insert, a = insert in next space, o = insert in new line**



135. What is the difference between "crontab" and "at" jobs?  
**crontab is for repetitive jobs where at is for one time job**
136. What is vCenter server in VMWare?  
**Search online**
137. What is "dmidecode" command used for?  
**To get system information**
138. What is the difference between SAN and NAS?  
**Search online**
139. What is the location of system logs? E.g. messages  
**/var/log directory**
140. How to setup an alias and what is it used for?  
**alias aliasname="command"**  
**It is used to created short-cuts for long commands**
141. What is the purpose of "netstat" command?  
**Search online**
142. What are terminal control keys, list any 3?  
**Crtl C, D and Z**
143. Which command(s) you would run if you need to find out how many processes are running on your system?  
**ps -ef | wc -l**
144. What are the different types of shells?  
**sh, bash, ksh, csh etc.**
145. How to delete a line when in vi editor mode?  
**dd**
146. Which is the core of the operating system?  
a) Shell  
**b) Kernel**  
c) Commands  
d) Script
147. Which among the following interacts directly with system hardware?  
a) Shell  
b) Commands  
**c) Kernel**  
d) Applications
148. How to save and quit from vi editor?  
**Shift ZZ or :wq!**
149. What is the difference between a process and daemon?  
**Search online**
150. What is the process or daemon name for NTP?  
**ntpd**

151. What are a few commands you would run if your system is running slow?  
**top, iostat, df -h, netstat etc.**
152. How to install a package in Redhat Linux?  
**yum install packagename**
153. What is the difference between "ifconfig" and "ipconfig" commands?  
**ifconfig for Linux and ipconfig for Windows**
154. What is the first line written in a shell script?  
**Define shell**  
**e.g. #!/bin/bash**
155. Where is the network (Ethernet) file located, please provide exact directory location and file name?  
**/etc/sysconfig/network-scripts/ifcfg-nic**
156. Why do we use "last" command?  
**To see who has logged in the system whether active or logged off**
157. What is RHEL Linux stands for?  
**Search online**
158. To view your command history, which command is used and how to run a specific command?  
**history and history #**
159. What is NTP and briefly explain how does it work and where is the config files and related commands of NTP?  
**Search online**
160. How to disable firewall in Linux?  
**Search online**
161. How to configure mail server relay for sendmail service?  
**Edit /etc/mail/sendmail.mc file and add SMART\_HOST entry**
162. Where is samba log file located?  
**/var/log/samba**
163. What is mkfs command used for?  
**To create a new filesystem**
164. If you create a new group, which file does it get created in?  
**/etc/group**
165. Which file has DNS server information (e.g. DNS resolution)?  
**/etc/resolv.conf**
166. What are the commands you would run if you need to find out the version and build date of a package (e.g. http)?  
**rpm -qi http**

167. On the file permissions? What are the first 3 bits for and who is it for?  
**Read, write and execute. They are used for the owner of the file**
168. How to create a soft link?  
**ln -s**
169. How to write a script to delete messages in a log file older than 30 days automatically?  
**Search online**
170. How to quit out of "man" command?  
**q**
171. Which command is used to partition disk in Linux?  
**fdisk**
172. What is the difference between "shutdown" and "halt" command?  
**Search online**
173. What is the exact syntax of mounting NFS share on a client and also how to un-mount?  
**Search online**
174. What experience do you have with scripting, explain?  
**if-the, do-while, case, for loop scripts**
175. How to get information on all the packages installed on the system?  
**rpm -qa**
176. Explain VMWare?  
**Search online**
177. You are tasked to examine a log file in order to find out why a particular application keep crashing. Log file is very lengthy, which command can you use to simplify the log search using a search string?  
**grep for error, warning, failure etc. in /var/log/messages file**
178. What is /etc/fstab file and explain each column of this file?  
**Search online**
179. What the latest version of Windows server?  
**Search online**
180. What is the exact command to list only the first 2 lines of history output?  
**history | head -2**
181. How to upgrade Linux from 7.3 to 7.4?  
**yum install update**
182. How to tell which shell you are in or running?  
**\$0**

183. You have tried to "cd" into a directory but you have been denied. You are not the owner of that directory, what permissions do you need and where?

**- - - - - r - x**

184. What is CNAME record in DNS?  
**Entry for hostname to hostname**
185. What is the name of VMWare operating system?  
**ESXi**
186. What is the client name used to connect to ESXi or vCenter server?  
**vSphere client**
187. You get a call from a user saying that I cannot write to a file because it says, permission denied. The file is owned by that user, how do you troubleshoot?  
**Give write permission on the first 3 bits**
188. What is the latest version of VMWare?  
**Search online**
189. What is the name of firewall daemon in Linux?  
**firewalld**
190. Which command syntax you can use to list only the 20<sup>th</sup> line of a file?  
**Search online**
191. What is the difference between run level 3 and 5?  
**3 = Boot system with networking, 5 = boot system with networking and GUI**
192. List a few commands that are used in troubleshooting network related issue?  
**netstat, tcpdump etc.**
193. What is the difference between domain and nameserver?  
**Search online**
194. You open up a file and it has 3000 lines and it scrolled up really fast, which command you will use to view it one page at a time?  
**more or less**
195. How to start a new shell. E.g. start a new ksh shell?  
**Simply type ksh, or bash**
196. How to kill a process?  
**kill processID**
197. How to check scheduled jobs?  
**crontab -l**

198. How to check system memory and CPU usage?  
**free and top**
199. Which utility could you use to repair the corrupted file system?  
**fsck**
200. What is the command to make a service start at boot?  
**systemctl enable servicename**
201. How to combine 2 files into 1? E.g. you 3 lines in file "A" and 5 lines in file "B", which command syntax to use that will combine into one file of 3+5 = 8 lines  
**cat fileA >> fileB**
202. What is echo command used for?  
**To output to a screen**
203. What does the following command do?  
echo This year the summer will be great > file1  
**It will create a new file "file1" with the content as "This year the summer will be great"**
204. Which file to modify to allow users to run root commands  
**/etc/sudoers**
205. You need to modify httpd.conf file but you cannot find it, Which command line tool you can use to find file?  
**find / -name "httpd.conf"**
206. Your system crashed and being restarted, but a message appears, indicating that the operating system cannot be found. What is the most likely cause of the problem?  
**The /boot file is most likely corrupted**