

Řešené otázky k testu LPI

26. března 2010

1. A new person has just been hired. You need to install a new Linux-only machine for them, configure it with their user information, and integrate it into the LAN such that they have access to the services necessary to complete their work. What must you do before procuring the machine for this user?
 - Consult the Linux Hardware Compatibility List.
 - Consider the type of work the user needs to do.
 - Consult the distribution's Hardware Compatibility List.
2. While assembling the machine, what considerations specific to Linux installations must be kept in mind?
 - If you were not the one choosing the hardware, be sure any modems involved are Winmodems.
3. Once the machine is assembled, what BIOS adjustments need to be made in modern machines before attempting the installation?
 - If no boot disks are necessary, change the boot order so the CD-ROM drive is checked first.
 - If there are Plug and Play devices that could not be disabled with jumpers, shut off Plug and Play in the BIOS.
 - Disable the Automode serial port setting, which automatically assigns COM ports to serial ports.
4. What are the base partitions that you should install, at the very least, on an end-user machine?
 - /
 - swap
 - /boot
5. During the Linux installation process, what hardware issues must be configured correctly to avoid the risk of damaging the hardware?
 - The monitor's range of operation
6. When the installer asks where to install LILO, where would you install it on a user's machine?
 - The MBR
7. Because this is a desktop machine, you would probably set it to boot into the GUI. Where would you look to find which runlevel is this equivalent to in this distribution?
 - /etc/inittab
8. What file might you edit if you needed to add additional information to get individual pieces of hardware to boot properly?
 - /etc/conf.modules
 - /etc/modules.conf
9. Once the machine is installed and properly booting into the GUI by default, what command would you use in a terminal window to change the machine to command-line mode for administrative purposes?
 - init

10. What two commands would you use to create the user login at the command line, without any special scripts?
 - passwd
 - useradd
11. Now that you have added the user, you need to add them to the special group created for their project team. What file would you edit to do this?
 - /etc/group
12. Now you need to have the machine automatically NFS mount the remote project group partition. What file would you edit to do this?
 - /etc/fstab
13. What line might you add to /etc/fstab to automatically NFS mount the remote directory /NFSmounts/Projects/DocGroup on the machine 'docserver', with read-write access?
 - docserver:/NFSmounts/Projects/DocGroup /Project nfs rw,auto 0 0
14. What file do you have to edit to add the new machine to the NFS mount rules on 'docserver'?
 - /etc/exports
15. What line might you add to explicitly give the new machine—named 'office120'—read-write NFS access to the /NFSmounts/Projects/DocGroup directory?
 - /NFSmounts/Projects/DocGroup office120(rw)
16. Back to the new user's machine, where you need to configure local printing. What file would you edit to accomplish this?
 - /etc/printcap
17. What files and directories do you need to create for an InkJet printer to function properly?
 - /var/spool/lpd/ij/log
 - /var/spool/lpd/ij
18. What permissions have to be set on the print spool?
 - rwxrwxr-x
19. What permissions must be set on the printer log file?
 - r-rw-rw-
20. Who should own the printer directories and files?
 - root
21. What groups should the printer directories and files belong to?
 - daemon
 - lp
22. What command would you use to print a file to the ij (default) printer?
 - lpr -Pij
 - lpr
23. What protocol is used to share printers and files across a multi-OS network?
 - SMB

24. What would you type to find out what SMB shares are being offered on the network?
- `smbclient -L`
25. What line would you enter in `/etc/fstab` to mount the SMB share `d:\StaffManuals` on the Windows 98 machine 'HR' to the local directory `/StaffManuals`?
- `\\\\HR\\STAFFMANUALS /StaffManuals smb auto,rw 0 1`
26. What Web server is typically used today in the Linux world?
- Apache
27. If the new employee makes a staff home page for internal use, where would the Web admin put this page if the Web server saw it as `/Staff` and the Apache storage defaults were kept in place?
- `/home/httpd/html/Staff`
28. Because a user's machine is on the network, what file should you edit to ensure that unneeded network daemons won't be listening for connections?
- `/etc/inetd.conf`
29. Now that the user's machine is set up, you need to install a new anonymous FTP server for the technical support department. What is a commonly used server used for this function?
- `wu-ftp`
30. What are common concerns surrounding anonymous FTP access that allows uploads?
- People might put illegal files on the system.
 - It is important to always watch for security updates to FTP servers.
 - People might exploit weaknesses and break out of the public area to access other portions of the file system.
31. Typically, where is the default base anonymous FTP directory?
- `/home/ftp`
32. Where typically is the upload directory in anonymous FTP?
- `/home/ftp/pub/incoming`
33. Another new machine arrives, but this one is for the server room. It has several large hard drives installed. What will be one issue to keep in mind when creating the `/boot` partition on this machine?
- The 1024th cylinder problem.
34. Because this is a server machine, which of the following partitions might you want to create during the installation?
- `/var`
 - `/usr`
 - `/tmp`
 - `/home`
35. What disk partitioning program do you have access to by default in almost all Linux distributions?
- `fdisk`
36. What command do you use in `fdisk` to look at the current partition list?
- `p`
37. What file system label in `fdisk` is a Linux swap partition?

- 82
38. What file system label in fdisk is a Linux native partition?
- 83
39. What types of packages might you not choose for a file server that you would for a desktop?
- Console games
 - Sound
 - XFree86
40. What service would you turn on to ensure that no one overruns their allotted space on the file server?
- quotas
41. At what file system level can the quota tool be used?
- Individual partitions
42. In what file do you assign quotas to a partition?
- /etc/fstab
43. What files do you have to create to properly activate quotas on a file system?
- quota.group
 - quota.user
44. What command do you type to edit quota assignments?
- edquota
45. What file would you edit on the server to set up NFS shares?
- /etc/exports
46. Which of the following are valid NFS share statements?
- /Projects *.domain.com (rw)
 - /Projects *.domain.com(rw)
 - /Projects (ro) server(rw,no_root_squash)
 - /Projects *.domain.com(rw) *.domain.org(ro)
47. Which file on the server would you edit to set up Samba shares?
- /etc/smb.conf
48. Which of the following are valid lines from a Samba statement?
- public = yes
 - hosts allow 192.168.
 - dont descend = /root
49. What must you do after changing any standalone daemon's configuration files?
- Restart the daemon
50. What package would you use to ensure that routine tasks happen on a regular, timed basis?
- cron
51. What service typically handles email on a Linux LAN?

- sendmail
52. What file do you initially edit when setting up sendmail on a modern Linux system?
- sendmail.mc
53. What program would you likely use to edit the sendmail configuration file?
- vi
54. What command would you have to type in vi before being able to add text to the sendmail configuration file?
- i
55. What command would you type in vi when finished adding text to the sendmail configuration file?
- ESC
56. What colon command would you type in vi to exit and save the sendmail configuration file?
- wq
57. When the sendmail.m4 file is ready, what does it need to be converted to?
- sendmail.cf
58. What file would you edit to customize how the machine's log files are handled?
- /etc/syslog.conf
59. What might you type to see what processes are running on the server?
- ps
 - ps aux
 - top
60. What command would you use to stop one of the processes if it didn't have an init script to do it for you?
- kill
61. What is the last resort command for stopping a process?
- kill -9
62. You need to compile a new kernel for the server. What packages do you probably need to have installed?
- GNU C
 - make
 - GNU C libraries
63. Which of the following kernels would you choose for a production machine?
- 5.2.61
 - 6.4.16
64. Where should you install the kernel source?
- /usr/src/linux
65. What program would you use if you needed to add an incremental update to the source?
- patch
66. What command builds the old kernel configuration file to use as a base?

- make oldconfig
67. Which of the following are tools you can use to create the new kernel configuration file?
- menuconfig
 - config
 - xconfig
68. What command builds the kernel itself?
- make bzImage
69. Where do you have to move a copy of the new kernel?
- /boot
70. What should the new kernel be named?
- vmlinuz-version
71. What program has to be reconfigured before you can boot to a new kernel?
- LILO
72. What of the following commands would you use to power the machine down?
- shutdown
 - halt
 - init 0
73. What do you type at the LILO prompt if the machine does not boot properly, to try to fix it, regardless of which distribution you are using?
- rescue
 - linux single
74. If everything on the new server works properly, what account will you avoid logging in on except when absolutely necessary?
- root
75. Which of the following might be solved by a simple reboot?
- LIL
 - LI?
 - LI
 - L
76. To see if httpd is currently running from a root login, which of the following command combinations would you use?
- ps aux | more
 - ps aux | grep httpd
 - ps aux
77. Which command would you use to see only the last ten lines of a file?
- tail
78. Which command would you use to see which devices are currently mounted onto the file system?
- df

79. Which commands could you use to delete a directory?
- `rm -rf`
 - `rmdir`
80. Which command would you use to list the jobs in the print queue?
- `lpq`
81. Which command would you use in `vi`'s command mode to delete the current character?
- `x`
82. Which command works to configure the X server regardless of distribution?
- `XF86Setup`
83. Which standard can you consult to help you find your way around a Linux system you've never used?
- `FSSTND`
84. Which networking tool can you use to assign IP addresses to machines during the installation process?
- `DHCP`
85. Which command can you use to create an empty file without opening it in an editor?
- `touch`
86. What kind of firewall would you use to prevent people from knowing how many machines are behind the firewall?
- `Proxy`
87. Which of the following are passwords that would pass a Crack security check?
- `aMbfRc`
 - `tooc00l`
 - `5y2n3x1w`
88. Which of the following is the umask for the permission set `rwxr-xr-x`?
- `022`
89. Which of the following files must be created or edited in order to institute quotas on the `/home` partition?
- `/etc/fstab`
 - `/home/[a]quota.group`
90. What would you do if you forgot the root password and were not logged into the root account already?
- Boot into single user mode.
91. Http packets travel under which protocol?¹
- `TCP`
92. Which command can you use to start building a configuration file for the ISA slot Plug and Play hardware in a Linux machine?
- `pnpdump`
93. Which command can you use to load ISA slot Plug and Play configuration data during boot time?

¹uvedená správná odpověď je UDP

- isapnp
94. You have a vi session open in command mode and want to look at a man page, but don't want to have to change terminals. What would you type to be able to look at the man page without having to close the vi session?
- Ctrl+Z
95. You have your vi session in the background and are finished looking at that man page. What do you type to bring the vi session back up?
- fg
96. You have a non-text file that you want to print. Which program might you need to run it through before sending it to the print queue?
- ghostscript
97. What should be on the first line of any bash shell script?
- #!/bin/bash
98. Which command would you use to verify that you can reach a known machine from the current machine?
- ping
99. Which of the following extensions refer to files that are compressed in some manner?
- .Z
 - .gz
 - .tgz
100. Which two commands would you use open a .tgz file?
- gunzip
 - tar -xvf
101. Which command would you use if you thought part of the file system was corrupt?
- fsck
102. What would you type to mount an MS-DOS formatted floppy (without relying on /etc/fstab shortcuts)?
- mount -t vfat /dev/fd0 /mnt/floppy
103. Which file system type would you use to mount a data CD-ROM?
- iso9660
104. Which command creates a soft link?
- ln -s
105. Which commands would you use to search for files in the file system?
- which
 - find
 - locate
106. Which commands format could you use to search for a file when you have no idea where in the file system it's located, but you do have a portion of the file name to go on?
- find / fragment
 - locate fragment

- `find / -name 'fragment'`
107. Which command updates the locate database?
- `locate -u`
 - `/usr/bin/updatedb`
108. Which log file would you look in to find problems during the boot process?
- `/var/log/messages`
109. Which of the following are popular X desktop environments?
- `xdm`
 - `gdm`
 - `kdm`
110. Which command works on all distributions to remove a user account?
- `userdel`
111. What does the user deletion command not remove?
- Files outside the user's home directory
112. Which command format can locate the ex-user's files within the file system?
- `find / -user UID`
 - `find / * -user username`
 - `find / * -user UID`
113. Which driver do you need to use a tape drive for backups?
- `ftape`
114. Which command must you use before removing removable media?
- `umount`
115. Which keyboard combination changes virtual terminals in console mode?
- `Alt+F#`
116. Which keyboard combination changes virtual terminals when in the GUI?
- `Ctrl+Alt+F#`
117. Which file would the superuser edit to set when weekly automated system jobs occur?
- `/etc/crontab`
118. Which command would a user type to edit his or her automated jobs?
- `crontab -e`
119. Which file would the superuser edit to set all user login defaults?
- `/etc/profile`
120. Which section of the file system is held entirely in RAM?
- `/proc`
121. If a user tends to enter the GUI by typing "startx", which file would you edit to change that user's default desktop environment?

- ~/.xinitrc
122. What type of /etc/printcap item would you use to define which script or program all jobs going to a specific printer should pass through first?
- if
123. Which command lets you set the system time?
- date
124. What should you keep around in case of a machine crash?
- boot disk
 - backups
125. Which of the following strings fit in the pattern "d?d"?
- did
 - dad
126. Which of the following strings fit in the pattern "d*d"?
- deed
 - dried
 - drained
 - did
127. Which character signals programs, such as vi, more, and less, that you want to search for characters?
- /
128. If you wanted to add a new file to the all new user home directories for accounts you create in the future, where would you put it?
- /etc/skel
129. Which protocol do ping packets travel with?
- ICMP
130. What would you type to determine the current network status?
- netstat -r
131. If you have an IP address and want to know the domain name associated with it, which command would you use?
- nslookup
132. Which permission bits must be turned on to run a shell script by just typing its name?
- executable
133. Which package allows for secure telnet connections?
- ssh
134. Which command is often used to prepare a downloaded package before compiling it?
- /configure
135. What is the first item run after LILO begins the boot process (not including the path)?
- rc.sysinit

136. Which kernel configuration options do you almost always change when compiling a custom kernel?
- joystick support
 - processor speed
 - amateur radio support
 - old CD-ROM drive support
137. Which command do you use to load a module into the kernel manually?
- insmod
138. Which hard drive BIOS setting would fix the 1024 cylinder problem in some cases?
- LBA
139. Which commands could you use to create a boot disk?
- dd
 - mkbootdisk
140. Which portions of the file system need to be cleaned out regularly so they don't overrun the rest of the file system?
- /tmp
 - /var/log
141. Which command combination would you use to join the text of two files into a third file?
- cat file1 file2 > file3
142. What is the default Linux shell?
- bash
143. What is the netmask for a class C IP address?
- 255.255.255.0
144. If a program locks up or hangs, what is one way that might get you out of it?
- Ctrl+C
145. Who do the first three items in a permission grouping refer to?
- owner
146. Which log file should exist if you want to track failed logins to try to detect attempted breakins?
- btmp
147. Which program could you use to edit text files without needing to open them?
- sed
148. Which of the following formats will list all files in the series file01 through file09?
- file??
 - file[0-9][0-9]
 - file*
149. Which command extracts an unused module from the kernel?
- rmmmod

150. Which command would you use to disable a printer?
- lpc
151. Which of the following is the print daemon?
- lpd
152. Which file contains printer configuration information?
- /etc/printcap
153. Which of the following is not a valid lpc command?
- remove
154. Which of the following is used to add a document to the printer queue?
- lpr
155. With what command(s) do you use the format `printername` to specify the printer?
- lpq
156. Which group should own the print spool directory?
- wheel
157. Which of the following is a valid entry in a printer definition in `/etc/printcap`, one that is not the or last line in the definition?
- sh:\
158. Which of the following is used to list what is within the print queue?
- lpq
159. Which of the following is not a valid variable to define in a `/etc/printcap` statement?
- lq
160. What command is often used to test a printer without testing the print daemon at the same time?
- print
161. Which of the following files do you edit to configure the general logging for lpd?
- /usr/spool/printer/log.conf
162. Which of the following is used to manage printers and queues, and move print jobs within queue?
- lpq
163. Which of the following can be used to start lpd automatically at boot time?
- /etc/services
164. What command is used to print a PostScript file? Consider all potential circumstances.[Choose all correct answers]?
- lpr
165. What unit is the maximum job size set in?
- bits

166. What printcap definition variable would you use to make sure a page of user identification information is not printed before each print?
- sh
167. Which of the following are quick checks to see why your print job isn't going through? [Choose all correct answers] a. Is the print daemon running?
- Is the printer on?
 - Are the cables firmly in place?
168. Which of the following is a valid print filter file type? [Choose all correct answers]
- /usr/spool/printer/log.conf
169. Which command-sequence-ingoring issues of flags and values-would you use, to get the job number for a specific job on the default printer and then cancel that job?
- lpc, lpr
170. What do you type when invoking the print daemon if you want it to log information?
- lpd -l
171. What statement concerning the following wildcard meets the point? A[0-9]*
- All files beginning with the letter A followed by a number
172. What device is described by the following special file? /dev/hdb2
- The second primary partition of the slave on the first IDE-channel
173. Which command shows you, how much space in Kilobytes is available on all mounted partitions?
- df -k
174. How could you get the information, what kind of quota is activated for user foo?
- quota foo
175. How could you help users to create files with serious file permissions?
- Use a serious umask setting in the user's profile
176. User Bertha is member of different groups. How could you ensure, that her default group is foobar?
- Ensure that the GID of foobar is placed in her /etc/passwd entry
177. You create a hard link bar which points to the file foo. If you remove the file foo, what happens?
- The link exists and it is possible to have access to it's content
178. User Mike has created a file with important content last week. But now he doesn't remember the filename or location of this file. The only thing he remembers is, that the filename contains the word "Urgent". How could you help him?
- locate Urgent
179. How can you describe the function of the following commands? foo | xargs bar
- The command bar is started with the output of the command foo as parameters
180. You have built a new kernel and the necessary module for your soundcard. Where could you enter the irq, dma and ioport settings for this card?
- In /etc/conf.modules or /etc/modules.conf

181. You want to activate graphical login on your Linux box so everybody can use a secure X11. What would you do to start this service every time from now on?
- Enter the number of the displaymanager runlevel in the entry of the default runlevel in `/etc/inittab`.
182. How could you get informations about all manpages which content the word foo in their short description?
- `apropos foo`
183. What command would you use to create a new group named foo?
- `groupadd foo`
184. Where could you configure the behavior of the syslog daemon?
- `/etc/syslog.conf`
185. A high nice value of a process means?
- The priority of the process is lower than normal
186. How many primary partitions could you create and use with Linux on one single harddisk?
- 4
187. Which command shows you, how much space is available on all mounted partitions?
- `df`
188. How could you describe the following commandline? `foo && bar`
- The command bar is only processed if the command foo leaves without error.
189. You want to enable all of your users to use about 20 megabyte of diskspace in their home-directories and about 5 megabyte in `/tmp`. What action concerning the partitioning is necessary?
- Every partition with userquotas have to have the file `[a]quota.user` on their root
 - `/home` and `/tmp` each have to be on a own partition
 - Every partition with userquotas need the entry `usrquota` in the options-field in `/etc/fstab`
190. The file foo has a permission mode of `-rw---`, is owned by user bar and belongs to group foobar. Which of the following commands would allow members of the group foobar to read the file?
- `chmod a+r foo`
 - `chmod +r foo`
 - `chmod g+r foo`
191. What would be the default file permission modes for new files if you set `umask` to 022 ?
- 644
192. You get an error message, concerning the USB every time you boot your system. Your system works perfectly exept USB. Now you want to get information from a Linux guru named bob@foo.bar.org. He asks you to send him the boot messages via email. How could you send him the necessary boot-information of your system?
- `dmesg | mail bob@foo.bar.org`
193. You want remove the file `-file-`. Which of the following answers are correct?
- `rm ./-file-`
 - `rm - -file-`
194. Which would be the command to delete the enviroment variable FOO from the current enviroment in the bash shell?

- unset FOO
195. How would you add the directory /usr2/bin to the environment variable PATH in the bash shell?
- PATH=\$PATH:/usr2/bin
196. The __-command starts processes with less priority.
- nice
197. How could you display any line of text from the file foo which starts with an uppercase letter?
- grep "[A-Z]" foo
198. What command would you use to copy all files inside the current directory which names begin with a number to /tmp
- cp [0-9]* /tmp
199. Which command shows you, how much space in Megabytes is available on all mounted partitions?
- df -m
200. You've bought a new harddisk and installed it in your Linux box as master on the second IDE-channel. After partitioning it into two primary partitions and creating filesystems on both partitions, you want to ensure, that both new partitions will be mounted automatically on bootup. What is to do?
- Add an entry for /dev/hdc1 and /dev/hdc2 to /etc/fstab
201. The user foo has got a userquota of 20 megabyte in his home directory. Now you want to give him 40 megabyte instead. What is to do?
- Use the command edquota foo
202. What would the following command result in? cp 'find . -size -12k' /tmp
- All files in the current directory and in all included subdirectories which are smaller than 12 KByte will be copied to /tmp.
203. The textfile foo has got 30 lines of text. How could you extract the lines 11 to 20 to STDOUT?
- head -n 20 foo | tail -n 10
 - tail -n 20 foo | head -n 10
204. What would the following command result in? echo \$(date +%H:%M) > file
- The current time (Hours and Minutes) will be written into file
205. What is the result of the following command? cd ~foo
- The current directory is changed to the home directory of the user foo
206. How would you suspend a running foreground-job?
- Ctrl-Z
207. What is a daemon-process?
- A process without own terminal
208. How can you describe the function of the following commands? foo | bar >> foobar
- The command foo redirects its output to the command bar, which writes its output to foobar. If foobar exists, the results will be appended.

209. The user `bertha` has marked an important line of one of her textfiles with an asterisk (*). But now she forgot the name of the file. How could you find this file, assuming it is located in `bertha`'s home directory?
- `grep * /home/bertha/*`
210. While monitoring the integrity of the filesystems, you detect, that there are no more free inodes left on the `/home` partition although there are many megabytes free space. What could be the reason?
- A user has created lots of very small files.
211. You have created a new directory named `/foo` and now you have copied the two files `bar` and `foobar` into this new directory. Now you mount a floppy onto `/foo` using the command `"mount /dev/fd0 /foo"`. What happens to the two files `foobar` and `foo` if you would use the command `"rm -rf /foo/*"` and then unmount `/foo`?
- Nothing. They are still there
212. What permissions need the files `/etc/passwd` and `/etc/shadow`?
- `-rw-r--r--/rw-----`
213. What would be the default file permission modes for new files if you set `umask` to `027` ?
- `640`
214. How could you watch the contents of a logfile, even if the logfile is growing while you're watching?
- `tail -f logfile`
215. How could you get the information about the group membership of user `foo`?
- `groups foo`
216. How could you detect if the file `foo` and `bar` are hardlinked together or not?
- The command `"ls -li foo bar"` shows the used inodes of `foo` and `bar`. If they are the same, they are linked together.
217. You (as a normal user) have created a new file named `foo` inside `/tmp`. But if you try to find this file using the command `"locate"` there is no result. What is the reason?
- `locate` only searches the system-database. The command will work after the next run of `updatedb`.
218. What command shows you, what groups you are belonging to?
- `groups`
219. You get a mail from user `bart`, in which he tells you, that he can't execute a self written shell-script named `foo`. This script is placed in the directory `/home/bart` and the user's current working directory is `/home/bart`, too. The `ls -l` command shows the script and the user has execute permission. What would probably be the reason of the problem?
- The `PATH`-variable don't includes the `.` entry
220. How could you create a directory `/foo/bar` if `/foo` does not exist?
- `mkdir -p /foo/bar`
221. What means the following construct inside a regular expression? `[^A-Z][!A-Z]`
- A non uppercase letter followed by either an `!` or an uppercase letter
222. You want all messages from the kernel with a priority of `"warn"` or higher to be displayed on your 10th virtual terminal. What line in `/etc/syslog.conf` would guarantee this?
- `kern.warn /dev/tty10`

223. How would you assign the result of the calculation $5 + 4$ to the environment variable SUM in the bash shell?
- `let SUM=5+4`
224. Which command would copy the whole directory tree, including all subdirectories under `/home/foo` to `/tmp`?
- `cp -r /home/foo /tmp`
225. How could you get the number of all accounts on your system, including administrative and system accounts?
- `wc -l /etc/passwd`
226. What would the following command result in? `cp /home/foo/bar /home/bar/foo /foo`
- The files `/home/foo/bar` and `/home/bar/foo` are copied into the directory `/foo`
227. How could you start the command `foo` in the background?
- `foo &`
228. What is a zombie-process?
- A process which has already done its work but couldn't die due to other reasons
229. What tool could you use to change the nice value of a running process?
- `renice`
 - `top`
230. Which of the following regular expressions fits all words, starting with an uppercase letter and ending with an `d` (using `grep`)?
- `\b[A-Z].*d\b`
231. What statement concerning the following wildcard is correct? `[A-Z]*`
- All files beginning with an uppercase letter followed by one `*`
232. Which of these commands could you use to show one page of output at a time?
- `less`
 - `more`
233. How could you monitor the amount of free blocks on `/dev/hda3`?
- `df /dev/hda3`
234. Consider a mounted partition `/dev/hdc7` is mounted on `/mnt`. Which commands could be used to unmount this filesystem?
- `umount /mnt`
 - `umount /dev/hdc7`
235. How could you generate a report of the user quota of `/home`?
- `repquota /home`
236. In the directory `/home/foo` exists a file named `bar` which is a symbolic link to `/etc/services`. If you would copy the link to `/tmp` using the command `cp -d /home/foo/bar /tmp` what would happen?
- The destination `/tmp/bar` is a symbolic link to `/etc/services`
237. What would the following command search for? `find / -perm +4000`

- All files with a permission of at least 4000
238. Which commands will give you information about how much disk space each file in the current directory uses?
- `ls -la`
 - `ls -l`
239. What would be the result of the following command? `init 3`
- The system switches to runlevel 3.
240. What is the command to build a new manpage index database?
- `mandb`
241. What command would send the output of `cmd1` to the input of `cmd2`?
- `cmd1 | cmd2`
242. What is described by the `PS1` and `PS2` environment variable?
- The normal prompt and the following prompt of the shell
243. Having booted into runlevel 3, how would you change the runlevel 5 without rebooting?
- `telinit 5`
244. The file `/etc/syslog.conf` contains the following line: `*.=crit /var/log/warn`
- All messages of all facilities with priority "crit" are written into the file `/var/log/warn`
245. You've defined an environment variable `FOO` with the content "bar" and now you want to start a new shell typing "bash". What of the following is necessary to ensure, that the variable `FOO` has its content "bar" also in the new shell?
- You have to type the command "export FOO" before you start the new shell.
246. How could you describe the following commandline? `foo; bar; foobar`
- The commands `foo`, `bar` and `foobar` are processed one after another.
247. You've defined an environment variable `FOO` with the content "bar" and now you start a new shell typing "bash". Which of the following statements is true?
- If you type "echo \$FOO" you see an empty line as result.
248. Which of the following commands could be used to search for a particular term inside a textfile without opening the file?
- `sed`
 - `grep`
249. What would be the result of the following command? `cp *.* /tmp`
- All files in the current directory, which have one or more dots (.) anywhere inside their names but not at the beginning would be copied to `/tmp`
250. Which command would change the owner of all files and subdirectories under `/home/foo` to `foobar`?
- `chown -R foobar /home/foo`
 - `chown -recursive foobar /home/foo`
251. What command would you use to copy all files inside the current directory which names end with a number to `/tmp`

- `cp *[0-9] /tmp`
252. What is the number of the first logical partition on `/dev/hda`?
- `/dev/hda5`
253. How could you check the integrity of a non mounted filesystem `/dev/hdb7` even if it has a valid cleanflag?
- `fsck -f /dev/hdb7`
254. Under the bash shell which is the most appropriate place to set environment variables that apply to all users?
- `/etc/profile`
255. You want your users to be able to mount the CD-Rom on `/dev/hdc`. What is the right way to enable them?
- Add the entry "user,noauto" to the options of the filesystem in `/etc/fstab`
256. What is the meaning of the sticky bit applied to a directory?
- A user with write permission in this directory may not remove any file inside the directory if he is not the owner of the file to remove.
257. How could you read the current umask setting?
- `umask`
258. You create a symbolic link `bar` which points to the file `foo`. If you remove the file `foo`, what happens?
- The link exists but any access would lead to an error
259. How could you get the following information: Which GID has the default group of user `foo`?
- `grep foo /etc/passwd | cut -d: -f4`
260. You have two program files named `foo`. One of them is located in `/usr/local/bin` and the other in `/usr/X11R6/bin`. How can you find out, which of the both commands would be used, when you just type the command `foo`?
- `which foo`
261. You can give options to the kernel
- using the `append-command` in `/etc/lilo.conf`
 - appending the options to the kernel name while using the bootmanager
262. You want your Linux box to shutdown this evening for a technical review. How could you manage this shutdown, so that no user stays unwarned?
- Just use "shutdown -h time" where time is the time of shutdown
263. After installing a new package which contains manpages, the `man` command does not find the new pages. What could be the reason?
- The manpage index database has to be rebuilt
264. How could you inhibit a valid user on your system to login but offer him a possibility to fetch his mail with POP3?
- Use `/bin/false` as his login shell in `/etc/passwd`
265. The file `/etc/syslog.conf` contains the following line: `*.crit /var/log/warn`

- All messages of all facilities with priority "crit" or any higher priority are written into the file /var/log/warn
266. How could you read the contents of the environment variable PATH in the bash shell?
- echo \$PATH
267. Which of the following commands could be used to turn all characters inside a textfile into uppercase without opening the file in an editor?
- tr
 - sed
268. Many server-processes allow the root-user to force them to read their configfiles while running. How is this done?
- Send them the SIGHUP signal
269. Which statements are true?
- A less nice value means higher priority
 - Only root can use negative nice values
270. Under the bash shell, when a command is running, pressing control-Z will usually do?
- suspend the foreground task
271. How could you monitor the amount of free inodes on /dev/hda3?
- df -i /dev/hda3
272. What is the effect of the following command? foo &
- The command foo is started in the background
273. In the directory /home/foo exists a file named bar which is a symbolic link to the file foobar in the same directory, created with the command ln -s foobar bar. If you would copy the link to /tmp using the command cp -d /home/foo/bar /tmp what would happen?
- The destination /tmp/bar is a symbolic link to /tmp/foobar
274. How could you get a list of all running processes?
- top
 - ps ax
275. How can you describe the function of the following commands? foo | bar > foobar
- The command foo redirects its output to the command bar
 - The command bar writes its output to the file foobar
276. What section of the online user's manual and command reference holds administrative (not user) commands?
- Section 8
277. What two commands will display the status of processes on a LINUX system?
- ps and top
278. What do the device file /dev/hdb6 represent?
- A logical partition on an IDE disk drive
279. Which command will display the last lines of text file file1?

- tail file1
280. In the bash shell, entering the !! command has the same effect as which one of the following?
- Ctrl-P and Enter
281. Which following commands can be used to check an ext2 filesystem? Select all that apply.
- fsck /dev/hda5
 - fsck.ext2 /dev/hda5
 - e2fsck /dev/hda5
282. Name the command that displays pages from the online user's manual and command reference.
- man
283. In response to the df command, the system reports a Use% of 98% for the filesystem mounted on /home. Which one of the following best describes the significance of this information?
- Files on /home are consuming 98 percent of the /home filesystem
284. Of the following directories, which one is the most important to back up on a routine basis?
- /etc
285. Carolyn has a text file named quest_list containing 12 lines. She executes the following command. What is the result? # split -4 quest_list gl
- The of guest_list are evenly divided among new files glaa, glab and glac.
286. Which one of the following commands would be best suited to mount a CD-ROM containing a Linux distribution, without depending on any configuration files?
- mount -t iso9660 /dev/cdrom /mnt/cdrom
287. An ext2 filesystem is configured with user quotas enabled. The soft limit is set at 100 MB per user, the hard limit is set at 110 MB per user, and the grace period is seven days. User bsmith already owns 90 MB of the data stored on the filesystem. What happens when bsmith writes a new file of size 30 MB?
- The write will fail, and the file will be truncated permanently.
288. User jdoe, a member of the finance group, owns a text file with group owner finance and mode 0077. Which statements are true regarding access to view the contents of the file, assuming the directory that contains it has mode 0777? Select all that apply.
- Everyone in the finance group can view the file's content except jdoe.
 - jdoe can first change the protection mode of the file and then view the file's content.
289. Which of the following commands displays the comments from a bash script? Select all that apply.
- sed -n '/^#/p' /etc/profile
 - grep '^#' /etc/init.d/http
290. State the syntax to direct the standard output of cmd1 directly into the standard input of cmd2.
- cmd1 | cmd2
291. Which of the following answers creates an environment variable VAR1, present in the environment of a bash child process?
- VAR1="fail" ; export VAR1
292. Name the full path and name of the file that holds most of the information on system user groups.
- /etc/group

293. Which of the following directories must be part of the root filesystem? Select all that apply.
- /etc
 - /lib
294. Name the facility that independently executes commands on a periodic basis for multiple users.
- cron
295. Alex is currently working in a directory containing only one file, Afile1. What is displayed after the following commands are entered in bash? # MYVAR=ls # echo \$MYVAR "\$MYVAR" '\$MYVAR' '\$MYVAR'
- ls ls \$MYVAR Afile1
296. What does the & character do when placed at the end of a command?
- Select one It causes the process to be placed into the background
297. Which one of the following commands could be used to change all uppercase characters to lowercase in the middle of a pipe?
- tr
298. What is the PID of init?
- 1
299. Which one of the following outcomes results from the following command? chmod g+s /home/software (directory)
- The SGID bit will be set for /home/software, in order to keep group membership of the directory consistent for all files created
300. Which one of the following commands is equivalent to the following command for user jdoe whose home directory is /home/jdoe? chmod 754 ~/file1
- chmod u=rwx, g=rx, o=r /home/jdoe/file1
301. What command and single required option creates a symbolic link in a Linux ext2 filesystem
- ln -s
302. What command can display the contents of a binary file in a readable hexadecimal form?
- od
303. Which one of the following commands copies files with the .txt extension from /dir1 into /dir2, while preserving file attributes such as dates?
- cp -p /dir1/*.txt /dir2
304. Which one of the following file globs matches "Linux" and "linux" but not "linux.com" and not "TurboLinux"
- [L]inu
305. A process with PID 4077 is misbehaving on your system. As superuser, you enter the following command: # kill 4077 However, nothing changes as a result. What can you do to terminate the process?
- kill -9 4077
306. Which one of the following key sequences is used to put a noninteractive text-mode program that is attached to the terminal into the background to allow it to continue processing?
- Ctrl-Z and then enter the bg command

307. What basic command is used to create hard disk partition?
- fdisk
308. With a umask of 027, how is the initial mode set for a newly created file?
- 0640
309. Consider the following script stored in a file with proper modes for execution: for \$v1 in a1 a2; do echo \$v1; done Which one of the following best represents the output produced on a terminal by this script?
- No output is produced, because the script has an error
310. Which one of the following commands verbosely extracts file from a tar archive on a magnetic tape device?
- tar xvf /dev/st0
311. Alex wants to protect himself from inadvertently overwriting files when copying them, so he wants to alias cp to prevent overwrite. How should he got about this? Select one
- Put alias cp='cp -i' in ~/.bashrc
312. Which one of the follwing utilities ouputs a text file with line numbers along the left margin?
- nl
313. The following line comes from the /etc/fstab. Which of the statements is accurate given the contents of this line? Choose all that apply " /dev/fd0 /mnt//fd0 vfat noauto,users 0 0
- The filesystem is on the floppy disk
 - Users are permitted to mount and unmount the filesystem
314. Which of the follwing expression is an accurate statement regarding this regular expression? [^1-8A-Za-z]
- It matches 9,0 and other nonletter and nonnumber characters.
315. Monica consults the /etc/passwd file expecting to find encrypted passwords for all the users on her system. She sees the following: jdoe:x:500:500::/home/jdoe:bin/bash bsmith:x:501:501::/home/bsmith:/bin/tcsh Which of the following is true? Select one
- The passwords are in the /etc/shadow
316. Name the briefest form of the command to initiate a change to runlevel 5.
- init 5
317. Where does "The Linux System Administrators' Guide originate?
- The Linux Documentation Project.
318. What does the "sticky bit" do?
- It prevents files from being deleted by nonowners except root.
319. What variable holds the list of directories searched by the shell to find executable programs?
- PATH
320. Which one of the following commands displays the full path and name of the executable program "myprog" that the shell would execute if "myprog" were entered as a command?
- which myprog
321. Alex executes the runlevel command and gets 3 5 as the response. What does this tell Alex? Select one
- The system was in runlevel 3 and is now in runlevel 5.

322. Which one of these files determines how message are stored using syslogd?
- `/etc/syslog.conf`
323. What does the `pr` command do?
- It paginates text files.
324. Dave has a Linux system with an interrupt conflict caused by his 3c509 network card. Dave's kernel is fully modular. How could Dave instruct the system to use interrupt 11 for his network adapter?
- Add options `3c509 irq=11` to `/etc/conf.modules`.
325. What is contained in directory `/sbin`? Select the single best answer.
- Commands of interest mainly to the administrator.
326. What ext2 filesystem attribute allows a process to take on the ownership of the executable files owner?
- SUID
327. What is appended to the beginning of a command line in order to modify the execution priority of the resulting process?
- `nice`
328. How are the `cat` and `tac` commands related? select one
- `cat` displays files and `tac` does the same but in reverse order.
329. With regard to the use of regular expressions to match text in a file, describe a metacharacter.
- They are special control characters used in the regular expression.
330. How many IDE devices can be installed and simultaneously used in a typical Intel-based system?
- 4
331. Which one of the following would be a consequence of a filesystem running out of inodes?
- No writes would be possible on the filesystem until existing files were deleted.
332. Consider the following line of console output, excerpted from among other lines of output. Which one of the commands produced it? `/dev/hda8 1.9G 559M 1.2G 30% /home`
- `df -h`
333. How can you configure your system at shutdown time to suppress `fsck` upon the next boot? Select one
- `shutdown -f`
334. Which one of the following is true about the LILO boot loader?
- It can start the Windows NT Loader.
335. Which one of the following statements correctly describes the `>` and `>>` symbols in the context of the bash shell?
- `>` writes standard output to a new file, and `>>` appends standard output to an existing file
336. Which command is NOT usable to install debian packages?
- `dinst`
337. What information is provided by the `jobs`-command?
- A list of all jobs started by the current shell including JobIDs

338. Which of the following tools could be used to search a textfile for a particular searchstring without opening it with an interactive editor?
- grep
 - sed
339. What set of files would be affected by the following wildcard? `foo.*bar`
- `foo.bar foo.1bar foo.2bar`
 - `foo.1bar foo.2bar foo.Fbar`
340. What command would you use to show all partitions on all harddrives?
- `fdisk -l`
341. The user `foo` has reported problems creating files in his home directory. He has got a user quota of 40 megabyte but a quick check of his directory shows only 20 megabyte in use. What may be the reason?
- He has probably many small files and his file limit is exceeded
342. What would be the result of the following command? `ln /bin /bin2`
- Nothing, but an error message
343. What is a X-server
- the program which administrates the graphical IO using the X11 protocol
344. What is the meaning of the SCSI-Address 1,5,0 ?
- The device with SCSI-ID 5 on the second SCSI-Bus, LUN 0
345. Which file would you edit so that the displaymanager ist started automaticly at boottime?
- `/etc/inittab`
346. You want to run a x-application on the computer `foo` but it should display on the screen of computer `bar`. What parameter for the application is needed to realize this?
- `-display bar:0`
347. Which flag would you use with `setserial` to enable 115 KBit for a serial port?
- `spd_vhi`
348. Which of the following directories have to be placed on the root partition?
- `/dev`
 - `/lib`
 - `/sbin`
349. When do you need to rerun the `grub-install` command?
- Only the first time after installing GRUB
350. You want to compile and install a GNU software package, but you want to change the default installation target. Which file would you edit?
- `Makefile`
351. You have just installed the new program `foobar` manually. This program uses shared libraries, which are installed to `/usr/local/foobar/lib`. What is necessary to do after the installation so that the libraries can be used?
- edit `/etc/ld.so.conf` to add the new library path and then run `ldconfig`

352. You want to install the RPM package file foobar.rpm. This file is located in /home/bob. Which command would you use to install this file?
- rpm -i /home/bob/foobar.rpm
353. You are the system administrator of a RedHat box. After checking your system, you found a file named foobar. What command would you use to get the information from which rpm packet this file was installed?
- rpm -qf foobar
354. Which of the following statements are true?
- A harddisk with more than 1024 cylinders should be used in LBA-mode
 - LBA-mode does not change the capacity of a harddisk
355. You want to install a ISA-Plug and Play Card into your computer. Which step is necessary to use this card with Linux?
- Use isapnp and pnpdump
356. How could you describe the following commandline? foo & bar & foobar
- The commands foo and bar are started in the background, foobar is started in the foreground
357. What command would you use to get a list of all installed debian packages on your system?
- dpkg -l
358. How could you get the information, how many kilobytes are used by the directory /home/foo including all subdirectories?
- du -s /home/foo
359. What would the following command search for? find / -perm +4000
- All files with a permission of at least 4000
360. How could you display all lines of text from the file foo which are not empty?
- grep -v ^\$ foo
361. You want to install a Linux-Server without keyboard. What of the following is necessary to avoid error messages during startup?
- Configure the CMos-Setup "Halt on" to "All but keyboard"
362. How can you detect, which ISA-Plug and Play Cards are installed on your computer?
- Use the pnpdump command
363. In the directory /home/foo exists a file named bar which is a symbolic link to /etc/services. If you would copy the link to /tmp using the command cp /home/foo/bar /tmp what would happen?
- The destination /tmp/bar is a regular file with the same content as /etc/services
364. What would be the default file permission modes for new files, if you set umask to 022 ?
- 644
365. You have to move the whole directory-tree /home/foo to /oldusers. What command would you use?
- mv /home/foo /oldusers
366. Which statements are true?
- A less nice value means higher priority

- Only root can use negative nice values
367. Which command would change the owner of all files and subdirectories under `/home/foo` to `foobar`?
- `chown -recursive foobar /home/foo`
 - `chown -R foobar /home/foo`
368. Which of the following directories may be placed outside the root partition?
- `/home`
 - `/boot`
 - `/var`
369. How can you describe the function of the following commands? `foo | tee bar | foobar`
- The command `foo` redirects its output to the command `tee` which writes it into the file `bar` and sends the same further to the command `foobar`
370. You want to install the RPM package file `foobar.rpm`. This file is located in `/home/bob`. Which command would you use to install this file?
- `rpm -i /home/bob/foobar.rpm`
371. Which command would you use to check the signature of a rpm packet?
- `rpm -checksig filename`
372. You want to install the tarball `foobar.tar.gz`. What command would unpack the archive?
- `tar xzf foobar.tar.gz`
 - `zcat foobar.tar.gz | tar xf -`
373. Which of the following commands could be used to turn all characters inside a textfile into uppercase without opening the file in an editor?
- `tr`
 - `sed`
374. Consider a mounted partition `/dev/hdc7` is mounted on `/mnt`. Which command could be used to unmount this filesystem?
- `umount /dev/hdc7`
 - `umount /mnt`
375. Which of the following programs could be used to load necessary modules when the system detects a newly connected USB-device?
- `Usbmgr`
 - `Hotplug`
376. You are working with `vi`, writing a textfile. After leaving insert mode with `Esc` you want to save and exit. What command is valid?
- `:x`
377. Which file would you edit so that the displaymanager is started automatically at boottime?
- `/etc/inittab`
378. You started an X-application with the parameter `-display foo:0` but you get the message "Can't open display". What is the reason?
- you must run the command `"xhost foo"` before the above command

379. Which of these programs is not a X client?
- startx
380. You need to set the system-wide colors and fonts for the XTerm application. Where is the best place to do this?
- /usr/lib/X11/app-defaults/Xterm
381. The commands mwm,twm, After step and olvwm are:
- X window managers
382. The XF86Config file contains?
- Configuration information for the X server
383. The entry :0 local /usr/X11R6/bin/X must be inserted into what file to enable XDM on the console display
- /etc/X11/xdm/Xservers
384. You want to start an X session after logging in using the text interface on the console. What commands can you use?
- Xinit
 - Startx
385. When defining the commands in an .xinitrc file, the last command started must be?
- The window manager in the foreground
386. XDM is used to?
- Authenticate users and start an X session
387. What command is not used for configuring the X environment
- XInstall.sh
388. What command sorts its input stream in alphabetic order (just the command - no options)?
- sort
389. What would be the result of the following command? cp *.* /tmp
- All files in the current directory, which have one or more points (.) anywhere inside their names would be copied to /tmp
390. What information is provided by the jobs command?.
- A list of all jobs started by the current shell including JobIDs.
391. How could you get a list of all running processes?.
- ps ax
 - top
392. What tool could you use to change the nice value of a running process?
- renice
393. What statement concerning the following wildcard is correct? [A-Z]*
- All files beginning with an uppercase letter

394. What is the Partition System ID of a regular Linux Partition? (just the two digits)
- 83
395. After an awful lot of work checking filesystem integrity in single user mode, you change back again to multi user mode. What single command could you use to mount all partitions at the right places? (Use the command and options)
- `mount -a`
396. You want to enable all of your users to use about 20 megabyte of disk space in their home directories and about 5 megabyte in /tmp. What action concerning the partitioning is necessary?
- One partition for /home is enough. You can symlink /tmp to /home/tmp later
 - Every partition with userquotas have to have the file quota.user in their root directory
 - Every partition with userquotas need the entry usrquota in the options-field in /etc/fstab
397. How could you change the group membership of the file foobar to group foo?
- `chgrp foo foobar`
398. In the directory /home/foo exists a file named bar which is a symbolic link to /etc/services. If you would copy the link to /tmp using the command: `cp -d /home/foo/bar /tmp` what would happen?
- The destination /tmp/bar is a symbolic link to /etc/services
399. What would the following command search for? `find / -perm +4000`
- All files with a permission of at least 4000
400. What is the default configuration file for the Linux loader? Enter the whole path and filename.
- /etc/lilo.conf
401. How could you ensure, that no user can login or work on the system while you manually repair a filesystem?
- Switch to runlevel 1
402. What file is used to define most of the used environment variables (like PATH or MANPATH) at login time for every user? Enter the whole path and filename.
- /etc/profile
403. You've defined an environment variable FOO with the content "bar" and now you start a new shell typing "bash". Which of the following statements is true?
- If you type "echo \$FOO" you see the word "bar" as a result.
404. What would the following command result in? `echo $(date +%H:%M) > file`
- The current time (Hours:Minutes) will be written into the File
405. You want to transport a file named foo from one computer to another. The only media available for transport are floppy disks. Unfortunately the size of the file is about 10 Megabytes. Which of the following commands could you use to solve the problem?
- `split -b 1440k foo`
406. You have to move the whole directory tree /home/foo to /oldusers. What command would you use?
- `mv /home/foo /oldusers`
407. What command offers you an ongoing look at processor activity in real time? (including options if needed)
- `top` or `procinfo -f`

408. How many extended partitions could you create on one physical harddisk?
- 1
409. Which command shows you, how much space in Megabytes is available on all mounted partitions?
- `df -m`
410. What is the proper way to force the init process to read it's configuration file?
- `kill -HUP 1`
411. If you type the command `man passwd` would you get the manpage for the file `/etc/passwd` or the program `/usr/bin/passwd` ?
- You get the manpage for `/usr/bin/passwd`
412. What command is used to cut a big file into many smaller files (just the command - no options)?
- `split`
413. Where could you configure the behavior of the syslog daemon?
- `/etc/syslog.conf`
414. How could you describe the following commandline? `foo || bar`
- The command `bar` is only processed if the command `foo` leaves with an error.
415. The _____ command starts processes with less priority
- `nice`
416. What command is used to create a new filesystem on `/dev/hda2` ?
- `mkfs /dev/hda2`
417. What statement about the `du` command is true?
- Disk Usage - shows the amount of diskspace used by the named directories.
418. You want to force a user to create files with a permission mode of 600. How would you set the `umask`?
- `umask 077`
419. What would be the result of the following command? `ln /bin /bin2`
- Nothing, but an error message (Can't hardlink to a directory!)
420. Which directory contains the essential commands needed on bootup?
- `/bin`
421. You can give options to the kernel.
- using the `append` command in `/etc/lilo.conf`
 - appending the options to the kernel name while using the Bootmanager
422. User `foo` has left our company and you want to remove his account and all his files in his home directory. Which of the following commands would do this?
- `userdel -r foo`
423. You want to set an environment variable named `foo`, so that every user can use this variable after login. What would be a good place to define this variable?
- `/etc/profile`

424. The file `/etc/syslog.conf` contains the following line: `*.crit -/var/log/warn` What is the result of this setting?
- All messages of all facilities with priority "crit" or any higher priority are written into the file `/var/log/warn`
425. How can you describe the function of the following commands? `foo < bar || foobar`
- The command `foo` gets its input from the file `bar` and if its exitcode is not 0, the command `foobar` will be executed.
426. How could you describe the following command line? `foo > bar 2>&1`
- The command `foo` writes its `STDOUT` and `STDERR` into the file `bar`.
427. What command is used to get the last lines of a text file (just the command - no options)?
- `tail`
428. Which of the following commands could you use to copy all regular files in the current directory to `/tmp`?
- `cp * /tmp`
429. Which statements concerning the tool `renice` are true?
- A normal user may only change the nice values of his own processes.
 - Once a nice value is increased, a normal user may not decrease it, even if it is his own process.
 - `root` can change the nice values of all processes of one user with a single command.
430. What command would you use to show all partitions on all hard drives?
- `fdisk -l`
431. What is the numeric value of the permission mode `drwxr-xr-T`
- 1754
432. Which of the following statements concerning `locate` is true?
- `locate` can find any file in the system which was created before the last call of `updatedb`
433. Which of the following commands results in mailing the content of the current directory to Bob?
- `ls | mail Bob`
434. How could you describe the following command line? `foo & bar & foobar`
- The commands `foo` and `bar` are started in the background, `foobar` is started in the foreground
435. Which would be the command to delete the environment variable `FOO` from the current environment in the bash shell?
- `unset FOO`
436. What would the following command result in? `cp $(find . -size -12k) /tmp`
- All files in the current directory and in all included subdirectories which are smaller than 12 KByte will be copied to `/tmp`.
437. What command is used to count the number of lines, words and characters inside a textfile - just the command, no options?
- `wc`
438. What would the following command result in? `cp /home/foo/bar /home/bar/foo /foo`
- The files `/home/foo/bar` and `/home/bar/foo` are copied into the directory `/foo`

439. You've started three jobs in the background. Now you would like to bring a particular one of them into the foreground again. How could you do it?
- Get the list of jobs using the jobs command and then use: fg jobID
440. What command sends signals to processes (just the command - no options)?
- kill
441. What statement concerning the following wildcard is correct? [A-Z]*
- All files beginning with an uppercase letter followed by one *
442. While monitoring the integrity of the filesystems, you detect, that there are no more free inodes left on the /home partition although there are many megabytes free space. What could be the reason?
- user has created lots of very small files.
443. Consider an unmounted partition /dev/hdc7 should be mounted on /usr/local. The following entry in /etc/fstab exists: /dev/hdc7 /usr/local ext2 defaults 1 2 Which command could you use to mount the filesystem?
- mount /dev/hdc7
 - mount /dev/hdc7 /usr/local
 - mount /usr/local
444. What is the meaning of the following file permission mode of the file foobar? -rwsr-xr-x 1 foo bar 12345 Oct 29 14:51 foobar
- Everybody who executes this file does this under the EUID of foo (EUID = Effective User ID)
445. What command changes the default permission mode for newly created files? (Just the command - no options).
- umask
446. How could you change the ownership of the file foobar to user foo?
- chown foo foobar
447. The files foo and bar points to the same content. One of them was created as a hard link to the other. How could you detect which of the two is the original file and which is the link?
- There is no way to differ between file and link
448. Which of the following statements concerning the locate command is true?
- locate can find any file in the system which was created before the last call of updatedb
449. What command would you use to read the kernel bootup messages? (Just the command, no options)
- dmesg
450. What command would cleanly reboot your Linux box?
- shutdown -r now
 - init 6
 - reboot
451. What is the meaning of the MANPATH variable?
- stores a list of all directories which contain manpages.
452. User Paul has forgotten his password. He asks you, the administrator, to help him. What could you do to help him?

- Create a new password for him using the command "passwd paul" and tell him his new password.
453. The group foo should get its own administrator, so that you, as the root user, are not forced to add the new group members. The group administrator is the user bar, who already is member of foo. He should be able to add and remove group members. What command would you use for that purpose?
- gpasswd -A bar foo
454. Which directory contains a set of template configuration files, to be copied in an newly created user directory? Enter the whole path.
- /etc/skel
455. How could you describe the following command? tail -f /var/log/messages
- It displays every new line of the file /var/log/messages while this file is growing
456. How could you describe the following commandline? foo &| bar
- This isn't a valid commandline.
457. How would you assign the content of the environment variable PATH to the environment variable MYPATH in the bash shell?
- MYPATH=\$PATH
458. Which command would change the owner of all files and subdirectories under /home/foo to foobar?
- chown -R foobar /home/foo
 - chown -recursive foobar /home/foo
459. What command is used to display a textfile in reversed order (last line first - first line last)
- tac
460. How could you try to stop a hung process which refuses to accept keyboard input?
- Ctrl-C
 - kill -9 PID
 - kill PID
461. What command starts processes with higher or lower priority?
- Nice
462. Which of the following tools could be used to search a textfile for a particular searchstring without opening it with an interactive editor?
- sed
 - grep
463. /dev/_____ ist the first logical partition of the master on the second IDE-channel.
- hdc5
464. How could you monitor the amount of free inodes on /dev/hda3 ?
- df -i /dev/hda3
465. You have created a new directory named /foo and now you have copied the two files bar and foobar into this new directory. Now you mount a floppy onto /foo using the command: mount /dev/fd0 /foo What happens to the two files foobar and foo if you would use the commands: rm -rf /foo/* and then umount /foo
- Nothing. They are still there

466. What command is used to change the permission mode of a file?
- Chmod
467. What would be the default file permission modes for new files if you set umask to 022 ?
- 644
468. What command is used to change group membership of a file?
- chown and chgrp
469. You create a hard link bar which points to the file foo. If you remove the file foo, what happens?
- The link exists and it is possible to have access to it's content
470. Which directories are forced to be located on the root partition?
- /proc
 - /dev
 - /etc
471. You want to activate graphical login on your Linux box so everybody can use a secure X11. What would you do to start this service immediatly?
- Enter the number of the displaymanager runlevel in the entry of the default runlevel in /etc/inittab.
472. What kind of information would you find in the manual section 8 ?
- about system administration commands (usually only for root)
473. Which shell would you use for a POP3 only account on your system?
- /bin/false
474. The group foo has a password. Who needs to know this password?
- Any user who is not member of the group foo but wants permission to a file belonging to this group
475. You get a mail from user bart, in which he tells you, that he can't execute a self written shell-script named foo. This script is placed in the directory /home/bart and the user's current working directory is /home/bart, too. The ls -l command shows the script and the user has execute permission. What would probably be the reason of the problem?
- The PATH-variable doesn't include the . entry
476. You detect a Compaq USB controller in your computer. Which USB module would you load to use this controller?
- usb-ohci
477. Which command would display the list of all running background-jobs?
- Jobs
478. You want to enable all of your users to use about 20 megabyte of disk space in their home-directories and about 5 megabyte in /tmp. What action concerning the partitioning is necessary?
- Every partition with userquotas need the entry usrquota in the options-field in /etc/fstab
 - Every partition with userquotas have to have the file quota.user on their root
 - /home and /tmp each have to be on a own partition
479. Enter the command to create a link. (Just the command, no options)
- ln

480. What would the following command search for? `find . -size 25k`
- All files inside the current directory and all included subdirectories, which are exactly 25 KBytes big
481. In what section of your `XF86Config` file would you enter the directive to use a particular font server?
- Section "Files"
482. Which of the following directories have to be placed on the root partition?
- `/sbin`
 - `/dev`
 - `/lib`
483. After unpacking the sourcecode of a GNU software package, you want to compile and install it on your system. Which of the following lines could be used?
- `./configure;make;make install`
484. You want to deinstall a deb packet foobar from your system. What would be a proper command?
- `dpkg -r foobar`
485. What command would you use to get a list of all installed files coming from a debian packet named foobar?
- `dpkg -L foobar`
486. In which file will you find a listing of all used IO-Ports of your computer?
- `/proc/ioports`
487. Which command is NOT usable to install debian packages?
- `dinst`
488. How could you describe the following commandline? `foo > bar 2>&1`
- The command `foo` writes its `STDOUT` and `STDERR` into the file `bar`.
489. What would the following command result in? `cp $(find . -size -12k) /tmp`
- All files in the current directory and in all included subdirectories which are smaller than 12 KByte will be copied to `/tmp`.
490. What command is used to connect lines of different textfiles to one line, using common fields to determine which lines fit together (just the command - no options)?
- `join`
491. You have to move the whole directory-tree `/home/foo` to `/oldusers`. What command would you use?
- `mv /home/foo /oldusers`
492. What is the effect of the following command? `fg 4`
- The job with the JobID 4 is fetched into the foreground
493. What command offers you an ongoing look at processor activity in real time (just the command - no options)?
- `top`
494. Which statements concerning the tool `renice` are true?
- `root` can change the nice-values of all processes of one user with a single command.
 - A normal user may only change the nice values of his own processes.

- Once a nice value is increased, a normal user may not decrease it, even if it is his own process.
495. How can you detect, which PCI devices are connected to your computer?
- Using the `lspci` command
496. Which of the following tools could be used to search a textfile for a particular searchstring without opening it with an interactive editor?
- `grep`
 - `sed`
497. What command is used to unmount mounted filesystems? (Just the command - no options)
- `umount`
498. What is the numeric value of the permission mode `drwxr-xr-T`
- 1754
499. What command is used to change ownership of a file? (Just the command - no options)
- `chown`
500. Which of the following programs could be used to load necessary modules when the system detects a newly connected USB-device?
- `hotplug`
 - `usbmgr`
501. Which directory contains a majority of system configuration files? Enter the whole path
- `/etc`
502. Which of the following programs are valid display managers for X11?
- `gdm`
 - `kdm`
 - `xdm`
503. You started an X-application with the parameter `-display foo:0` but you get the message "Can't open display". What is the reason?
- you must run the command `"xhost foo"` before the above command
504. You are working with `vi`, writing a textfile. Being in command mode, you want to move the cursor 7 characters right. Enter the necessary command
- `7l`
505. Which is the Partition ID of a Linux Native Partition
- 83
506. When do you need to rerun the `grub-install` command?
- Only the first time after installing GRUB
507. Which statements concerning the program `gzip` are true?
- `gzip` changes its behaviour when it is renamed to `gunzip`
 - After compressing a file with `gzip`, the uncompressed file is removed
 - `gzip` is used to compress just a single file

508. You have just installed the new program foobar manually. This program uses shared libraries, which are installed to `/usr/local/foobar/lib`. What is necessary to do after the installation so that the libraries can be used?
- edit `/etc/ld.so.conf` to add the new library path and then run `ldconfig`
509. You want to install the debian package file `foobar.deb`. This file is located in `/home/bob`. Which command would you use to install this file?
- `dpkg -i /home/bob/foobar.deb`
510. Which command would you use to list all rpm-packets installed on your system?
- `rpm -qa`
511. Which of the following statements are true?
- A harddisk with more than 1024 cylinders should be used in LBA-mode
 - LBA-mode does not change the capacity of a harddisk
512. The `isapnp` command uses a configuration file named `isapnp.conf`. How do you create this file?
- Using the `pnpdump` command
513. Which flag would you use with `setserial` to enable 115 KBit for a serial port?
- `spd_vhi`
514. Which is the partition ID of a Linux Swap Partition
- 82
515. Enter the full path of the LILO configuration file
- `/etc/lilo.conf`
516. You want to compile and install a GNU software package, but you want to change the default installation target. Which file would you edit?
- `Makefile`
517. Which programm is used to maintain the file `/etc/ld.so.cache`?
- `ldconfig`
518. You want to install a RPM packet file `foobar.rpm` on a debian system. What command would you use to convert the rpm-file into debian deb format?
- `alien -to-deb foobar.rpm`
519. What command is used to reconfigure a formerly installed debian packet. Enter just the name without path and options.
- `dpkg-reconfigure`
520. Which command would change the owner of all files and subdirectories under `/home/foo` to foobar?
- `chown -R foobar /home/foo`
 - `chown -recursive foobar /home/foo`
521. What command is used to get the first lines of a textfile (just the command - no options)?
- `head`
522. You want to deinstall the packet foobar from your RedHat box. But you are not sure, if some other packets depend on this packet. What command would you use to get this information?

- rpm -q --whatrequires foobar
523. You want to install a Linux-Server without keyboard. What of the following is necessary to avoid error messages during startup?
- Configure the CMos-Setup "Halt on" to "All but keyboard"
524. Which command would copy the whole directory tree, including all subdirectories under /home/foo to /tmp?
- cp -r /home/foo /tmp
525. What command is used to display a textfile in reversed order (last line first - first line last) - just the command, no options?
- tac
526. What would the following command result in? cp /home/foo/bar /home/bar/foo /foo
- The files /home/foo/bar and /home/bar/foo are copied into the directory /foo
527. How could you start the command foo in the foreground?
- foo
528. While monitoring the integrity of the filesystems, you detect, that there are no more free inodes left on the /home partition although there are many megabytes free space. What could be the reason?
- A user has created lots of very small files.
529. What is the numeric value of the permission mode -rwxr-sr—
- 2754
530. You want to force a user to create files with a permission mode of 600. How would you set the umask?
- umask 077
531. Which command would you use to set the speed of a serial interface?
- setserial
532. Which directory contains a majority of system configuration files? Enter the whole path
- /etc
533. Most linux systems offer a display manager runlevel. What statement about this runlevel is true?
- X11 is started automatically and offers a login window
534. You want to run a x-application on the computer foo but it should display on the screen of computer bar. What parameter for the application is needed to realize this?
- -display bar:0
535. You are working with vi, writing a textfile. Being in command mode, you want to move the cursor 7 characters left. What command could you use?
- 7h
536. Which of the following directories may be placed outside the root partition?
- /tmp
 - /boot
 - /usr

537. When do you need to rerun the grub-install command?
- Only the first time after installing GRUB
538. You want to install the tarball foobar.tar.gz. What command would unpack the archive?
- tar xzf foobar.tar.gz
 - zcat foobar.tar.gz | tar xf -
539. You have just installed the new program foobar manually. This program uses shared libraries, which are installed to /usr/local/foobar/lib. What is necessary to do after the installation so that the libraries can be used?
- edit /etc/ld.so.conf to add the new library path and then run ldconfig
540. You want to install the debian package file foobar.deb. This file is located in /home/bob. Which command would you use to install this file?
- dpkg -i /home/bob/foobar.deb
541. Which command would you use to get a list of all files inside the rpm-package foobar.rpm in /home/bob?
- rpm -ql -p /home/bob/foobar.rpm
542. Which directory contains manpages?
- /usr/man
 - /usr/local/man
 - /usr/doc/man
543. You want to run an X-application on your local machine but it should display itself on the first display-server of foo. The command is "xapplication -display _____" (Don't use screennumbers)
- foo:0
544. You are working with vi, writing a textfile. Being in command mode, you want to move the cursor 7 lines down. Enter the necessary command
- 7j
545. In which file will you find a listing of all used DMA-channels of your computer?
- /proc/dma
546. Which program is used to determine which shared libraries are used by a particular other program?
- ldd
547. What command changes tabs to spaces (just the command - no options)?
- expand
548. You want to connect a X11-Terminal to your Server. But everytime you try to connect, your terminal screen keeps black. What files on the server would you edit to solve the problem?
- /etc/X11/XF86Config
 - /etc/X11/xdm/xdm-config
549. You want to configure an X11 server. For that purpose you have to enter various information about your hardware. Which informations are necessary to configure the server?
- keyboard
 - monitor
550. In which file will you find a listing of all used IRQs of your computer?

- /proc/interrupts
551. You detect a VIA USB controller in your computer. Which USB module would you load to use this controller?
- usb-uhci
552. What is the best way to get a running foreground-job in the background?
- Suspend the job using Ctrl-Z and restart it in the background using bg
553. What command offers you a snapshot of the current processes (just the command - no options)?
- ps
554. When do you need to run the lilo command?
- After every modification of the lilo configuration file
 - After installing a new kernel with a new name in /boot
 - After overwriting the old kernel in /boot with a new one
555. What would the following command result in? `echo 'date +%H:%M' > file`
- The current time (Hours:Minutes) will be written into the file
556. You want to install the tarball foobar.tar.bz2. What command would unpack the archive?
- `tar xjf foobar.tar.bz2`
 - `bzcat foobar.tar.bz2 | tar xf -`
557. What set of scripts is included in a debian packet?
- preinst,postinst,prerm,postrm
558. Which of the following programs can be used to configure your X-Server?
- xf86config
 - XF86Setup
559. Which of the following commands copies the contents of all files in the current directory into the file "allfiles"?
- `cat * > allfiles`
 - `cat * >> allfiles`