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HERE

Introduction to Linux I – Final Comprehensive Exam Answers (Modules 1 – 27)

1. **The _____ command displays information about the Linux kernel:**
   - kern
   - **uname ***
   - real
   - linux

2. **A command can be: (choose three)**
   - **A program built-in to the shell ***
   - A variable
   - A block
   - A configuration file
   - **An alias ***
   - **A function ***

3. **Which of the following are valid command lines? (choose two)**
   - **ls -l /etc ***
   - ls -/etc
   - -l ls /etc
   - **ls /etc -l ***

4. **The [ ] characters around day in the example cal [-smjy13] [[[day] month] year] means that day is:**
   - An option, not an argument
   - Required
   - An argument that must be "day" and nothing else
   - **Optional ***

5. **The syntax [-u|–utc|–universal] means:**
   - These are required options
   - These three options are different
   - **These three options mean the same thing ***
   - This is invalid syntax

6. **If you want to delete a variable, you can run:**
   - delete

- **unset ***
- clear
- wipe

7. **Local variables are:**
   - **Only available to the shell they are created in ***
   - Passed into other shells and commands
   - Are not a valid type of variable
   - Not used by shells at all

8. **Which of the following is a valid way to add the /data directory to the existing PATH variable?**
   - **PATH=$PATH:/data ***
   - PATH=/data
   - $PATH=/data
   - $PATH=$PATH:/data

9. **To view all processes on the system, you can execute:**
   - ps -f
   - ps –all
   - **ps -e ***
   - ps

10. **In order to run a command called "tough" in the background, you would type:**
    - tough@
    - bg tough
    - **tough& ***
    - start -b tough

11. **To send a signal to a set of processes with the same name, you can run:**
    - **killall ***
    - grpkill
    - allkill
    - sigkill

12. **Which of the following is not used for globbing?**
    - **#**
    - *
    - ?
    - [

13. **The command echo ???a will display:**
    - Only a file named ???a

- **All of the files in the current directory that have four characters in the file name with the last character being an "a" character. ***
- All of the files in the current directory that have four characters in the file name.
- All of the files in the current directory that end with an "a" character.

14. **Which of the following characters can be used to negate (indicate NOT matching the following characters), when placed as the first of a set of characters enclosed in square brackets [] ? (choose two)**
- **^**
- ~
- ?
- **!**

15. **Which command performs globbing?**
- The display command
- **The bash command ***
- The ls command
- The echo command

16. **Which option(s) for the rm command can be used to delete directories that contain files? (choose two)**
- **-R ***
- -D
- **-r ***
- -A

17. **Which character at the beginning of a long listing indicates a symbolic link?**
- d
- **l ***
- c
- –

18. **The names of hidden files begin with the ___ character.**
- >
- +
- **.**
- *

19. **Which option to the ls command will sort the output by size instead of alphabetically?**
- -s
- **-S ***
- -r

- -t

20. **gzip and bzip are aliases for the same utility.**

    True or False?

    - True
    - **False ***

21. **Which option to the bzip2 command can be used to report the compression ratio of an archive?**

    - -R
    - **-v ***
    - -l
    - -c

22. **Which option to the bzip2 command can be used for recursive compression?**

    - **bzip2 doesn't support recursive compression ***
    - -R
    - -c
    - -v

23. **The dd command can be used to create large files the can be used as swap files.**

    True or False?

    - **True ***
    - False

24. **The dd command can be used to copy entire partitions.**

    True or False?

    - **True ***
    - False

25. **This stream is the output of a command operating normally:**

    - **stdout ***
    - stdnorm
    - stderr
    - stdin

26. **Two or more commands combined with the "|" between them form a:**

    - convoy
    - **pipeline ***
    - command line
    - caravan

27. **If you want to append a file with the normal output of a command, you can use:**

    - 2>>

- **>>**
- >
- 1>

28. **To send the normal and error output of a command to a single file, you can use:**
    - **&>**
    - 1>
    - 2>
    - >

29. **Which command will merge two files together line by line?**
    - join
    - merge
    - **paste** *
    - combo

30. **Which of the following is a non-interactive editor?**
    - ed
    - **sed** *
    - vi
    - nano

31. **If you want a file to be displayed with its lines numbered, you can use:**
    - fmt
    - cut
    - **nl** *
    - number

32. **To put the lines of a file in alphabetical order, you can run:**
    - paste
    - **sort** *
    - cat
    - uniq

33. **The _____ command provides many options for formatting a file for printing.**
    - format
    - header
    - print
    - **pr** *

34. **Which regular expression character matches any one character?**
    - +
    - **.**

- ?
- *

35. **Which regular expression character matches zero or more of the previous character?**

- *****
- +
- .
- ?

36. **Which of the following regular expression characters is an extended regular expression character?**

- .
- *
- $
- **+**

37. **The regular expression a? is equivalent to:**

- a{0,}
- **a{0,1} ***
- a{1,}
- a{1}

38. **To use regular expression characters to match themselves, you cannot:**

- Put the character in the square brackets
- Use the backslash in front of the character
- **Use the slash in front of the character ***
- Use the fgrep command

39. **To navigate to the end of the line in vi command mode, you can press:**

- ^
- #
- *
- **$**

40. **To move backward through a vi document, word by word, you press:**

- r
- w
- **b ***
- c

41. **To save and then quit, you can type in command mode:**

- :q
- **:wq ***

- :WQ
- :qw

42. **If you want to move a character to the left in vi command mode, you can press the left arrow key or:**

- j
- **h ***
- k
- l

43. **If you want to move up a line in vi command mode, you can press the up arrow key or:**

- **k ***
- l
- h
- j

44. **If a file has permissions that appear as rwxr-x—, what is the octal permission mode of the file?**

- **750 ***
- 740
- 650
- 760

45. **The only user with the capability to change the owner of a file is root.**

   True or False?

- **True ***
- False

46. **Assuming everyone has access to the directory the file is in, who can view the contents of a file with permissions of rw-r—-x?**

- Only the group owners
- **Both the user owner and group owners ***
- Only the user owner
- Everyone
- Nobody

47. **To switch to another group, you must:**

- Log off and log back in
- Log in as the staff user
- Be logged in graphically
- **Be a member of the group that you are switching to ***

48. **The command, chmod 0777 /data will:**

- Make the /data directory a setuid directory
- Make the /data directory a sticky bit directory
- **Remove all special permissions** *****
- Make the /data directory a setgid directory

49. **Which of the following are mount options used for disk quotes? (choose two)**
- userquota
- **usrquota** *****
- **grpquota** *****
- groupquota

50. **Which command produces a list of users of groups and their quota statistics?**
- quotarpt
- **repquota** *****
- warnquota
- quota

51. **Which command will remount the /data filesystem using the option from the /etc/fstab file?**
- mount -o mount /data
- mount -o remount /dev/sda1 /data
- **mount -o remount /data** *****

52. **If a user has exceeded the block soft quota and the grace period has expired, what happens?**
- **The soft limit becomes a hard limit until the user goes below the soft limit again** *****
- The user will lose data, as files will be deleted automatically by the kernel.
- The question is invalid because users cannot exceed block soft quota limits
- Nothing, the user can still continue to use files as normal

53. **Which directories are typically writable to all users? (choose two)**
- **/tmp** *****
- /home
- **/var/tmp** *****
- /

54. **To activate a swap space that has been initialized, you can execute:**
- swapoff
- **swapon** *****
- swapcontrol
- swapctl

55. **Which of the following commands will allow you to backup a partition table to a file and restore it at a later time?**

   - ddisk
   - edisk
   - **sfdisk ***
   - pdisk

56. **Which of the following commands will allow you to add a physical volume to an existing volume group?**

   - vgcreate
   - **vgextend ***
   - vgreduce
   - vgadd

57. **If the command you used to unmount a partition fails, which commands can you use to check what is keeping the partition busy? (choose two)**

   - **lsof ***
   - chkdsk
   - partchk
   - **fuser ***

58. **What commands can display a list of mounted file systems? (choose two)**

   - lspt
   - **mount ***
   - **df ***
   - fdisk

59. **The first field in the /etc/fstab file is used to specify:**

   - The mount options
   - The dump level
   - The filesystem type
   - **The device to mount ***
   - The mount point
   - The fsck order

60. **The sixth field in the /etc/fstab file is used to specify:**

   - The filesystem type
   - The device to mount
   - The mount point
   - **The fsck order ***
   - The mount options

- The dump level

61. **Which of the following will mount an ISO file named cdrom.iso?**

- mount -t cdrom cdrom.iso /mntb

- mount -t ufs cdrom.iso /mnt

- mount -o loopback cdrom.iso /mnt

- **mount -o loop cdrom.iso /mnt ***

62. **Which option to the du command shows a summary of the space used in a directory structure?**

- **-s ***

- -h

- -x

- -all

63. **What determines how many files can be stored in a filesystem?**

- The number of bytes

- The Superblock size

- **The number of inodes ***

- The number of data blocks

64. **Which of the following commands will display information about the Superblock? (choose two)**

- **tune2fs ***

- init 0

- superblk -a

- **dumpe2fs ***

65. **The fsck utility uses which file to determine a filesystem type?**

- /etc/system

- /etc/fsck

- **/etc/fstab ***

- /etc/fsck.config

66. **Which command will allow you to determine where the backup superblock is for a filesystem?**

- **dumpe2fs ***

- e2fsck

- fsck

- superblk

67. **The output of the ls -l command includes "/etc/grub.conf -> ../boot/grub/grub.conf".**
    Based on this information, which is the soft link file?

- ../boot/grub/grub.conf
- **/etc/grub.conf** *
- Neither
- Both

68. **If you have 5 hard linked files and you delete four of them including the original one, then:**
    - You lose the data from the file
    - The file still exists, but the data in the file is deleted
    - The hard link count goes to 0
    - **The data is still available from the remaining file** *

69. **What directory is used as a temporary mount point?**
    - **/mnt** *
    - /tmpmnt
    - /etc
    - /xbin

70. **Which command needs to be executed after modifying the LILO configuration file?**
    - reload
    - redo
    - modconfig
    - **lilo** *

71. **In GRUB Legacy, which directive is not typically used after a title directive? (choose one)**
    - initrd
    - **boot** *
    - kernel
    - root

72. **The third stage of the boot process is:**
    - **The kernel phase** *
    - The init phase
    - The firmware (BIOS/UEFI) stage
    - The Bootloader (LILO/GRUB) stage

73. **The bootloader (GRUB/LILO) loads which of the following components into memory? (choose two)**
    - The root filesystem
    - **The ramdisk** *
    - The init process

- **The kernel ***

74. **Which runlevel number defines multi-user with no networking services?**

- 3
- 0
- 1
- 5
- **2 ***
- 6
- 4

75. **Which of the following commands can be used to reboot the system? (choose two)**

- shutdown
- **reboot ***
- halt
- **shutdown -r ***

76. **What two differences are there between querying an installed RPM and an RPM package file with the rpm command? (choose two)**

- **You must use the full filename when querying the package. ***
- You must use the full filename when querying the installed RPM.
- **To query the package file, you have to add the -p option. ***
- To query the installed RPM, you have to add the -i option.

77. **If you use the -f option when performing an rpm query:**

- The command will output a list of the files in the packages.
- The command will display the full filename of the original package.
- The command output will wrap at half screen width.
- **The command will show the package that owns a file. ***

78. **If you you have a RPM package file named, figlet-1.1-0.3.i686.rpm, which rpm commands will install it? (choose two)**

- rpm -F figlet-1.1-0.3.i686.rpm
- **rpm -U figlet-1.1-0.3.i686.rpm ***
- **rpm -i figlet-1.1-0.3.i686.rpm ***
- rpm -e figlet-1.1-0.3.i686.rpm

79. **The rpm2cpio command can be used to: (choose two)**

- **Extract files from a ".rpm" file ***
- **List the content of a ".rpm" file ***
- Build a binary ".rpm" file from a source ".src.rpm" file
- Create a new ".rpm" file

80. **Which two directories are automatically searched for shared libraries? (choose two)**
    - **/usr/lib** *
    - **/lib** *
    - /library
    - /usr/library

81. **Which command will remove all files that belong to a Debian package?**
    - apt-get uninstall
    - **apt-get purge** *
    - apt-get remove
    - apt-get erase

82. **Which command will update the list of available packages for APT?**
    - apt-get upgrade
    - **apt-get update** *
    - apt-cache update
    - apt-cache upgrade

83. **How can you determine the Debian package that owns a file?**
    - **dpkg -S** *
    - dpkg -f
    - dpkg -o
    - dpkg -i

84. **Which command may be used to get a list of the installed Debian packages?**
    - apt-get list
    - dpkg -L
    - apt-get show
    - **dpkg -l** *

85. **Which two commands will show detailed information about a Debian package? (choose two)**
    - **apt-cache show** *
    - **dpkg -s** *
    - apt-cache info
    - dpkg -i

86. **Which command is used to display the shared libraries of a dynamically linked executable?**
    - **ldd** *
    - ldlist
    - ldconfig

- ld.so

87. **Which command will check the integrity of an RPM file?**

- **rpm -qKp** *
- rpm -qCp
- rpm -qcp
- rpm -qkp

88. **Which two characters do you use to tell the command that you are finished providing options and that the remaining data on the command line is arguments?**

- **
- &&
- **—**
- ||

89. **The _____ option to the uname command will display the kernel name.**

- **-s** *
- -x
- -n
- -k

90. **Special file man pages are typically located in section ____.**

- **4** *
- 2
- 3
- 1

91. **System Administration man pages are typically located in section ___.**

- **8** *
- 6
- 7
- 9

92. **Shell command man pages are typically located in section ___.**

- 4
- **1** *
- 3
- 2

93. **An absolute path always starts with which character?**

-
- ~
- **/**

- .

94. **Which file can you place in your home directory to be executed when you log off the system?**
    - ~/.bashrc
    - /etc/bashrc
    - ~/.bash_profile
    - **~/.bash_logout ***

95. **The _____ command will list the commands that are running in your terminal.**
    - ls
    - **ps ***
    - proc
    - list

96. **To set a priority value lower than 0, you must log in as which user?**
    - **The root user ***
    - Any user account
    - No user can specify a priority lower than 0
    - The adm user

97. **Which glob character matches "exactly one character"?**
    - [
    - *
    - **?**
    - .

98. **By default, using the touch command on an existing file will update the file's _____.**
    - Type
    - Permissions
    - **Timestamp ***
    - Ownership

99. **Which option to the find command will execute a command on each matching file without prompting the user?**
    - -ok
    - -print
    - -ls
    - **-exec ***

100. **Which option to the find command will search by name using a case-insensitive match?**
    - -inum

- -insen
- **-iname** *
- -i

101. **Which of the following commands will take the standard output of the ls and put it into the /tmp/output.txt file:**

- ls | /tmp/output.txt
- ls 2 | /tmp/output
- ls 2> /tmp/output.txt
- **ls > /tmp/output.txt** *

102. **The ____ option can be used with the edquota command to copy the quota limits from one user account to another.**

- -u
- -c
- **-p** *
- -d

103. **A system that contains Linux as well as a Microsoft Windows operating system is called a:**

- Multi environment system
- This sort of system cannot exist
- **Dual boot system** *
- A file base system

104. **In what directory are you most likely to find user's home directories?**

- **/home** *
- /usr/third
- /var/lib
- /usr/local

105. **Virtual memory is also referred to as:**

- **Swap memory** *
- Test memory
- Hard memory
- Soft memory

106. **Which directory structure has directories which may have heavy activity for services like mail, ftp, httpd and printing?**

- **/var** *
- /rootfs
- /root

- /home

107. **After running fdisk -cu /dev/sdb, what fdisk command will allow you to save changes and quit?**
    - q
    - **w ***
    - f
    - g

108. **Which command is used to create a logical volume?**
    - lvadd
    - createlv
    - create
    - **lvcreate ***

109. **Which option to the tune2fs command will change the space reserved for system use?**
    - -M
    - -r
    - -R
    - **-m ***

110. **Which option to the du command will allow you to specify a subdirectory to not include in the results?**
    - **–exclude ***
    - –noinclude
    - -e
    - -x

111. **Which option to the fsck command forces a system check?**
    - **-f ***
    - -FF
    - -F
    - -ff

112. **Which option to the fsck command will allow you to specify the filesystem type?**
    - -T
    - -f
    - -F
    - **-t ***

113. **Which option to the e2fsck command allows you to specify an alternative superblock?**

- -a
- -d
- **-b ***
- -c

114. **Which type of link can be made to a file on another filesystem, hard or soft?**

- hard
- **soft ***

115. **Which type of link can be made to directories, hard or soft?**

- hard
- **soft ***

116. **When viewing a file with the ls -l command, which character represents a file type of soft link?**

- –
- **l ***
- d
- f

117. **Which directory is used to store the kernel?**

- /kernel
- /
- /etc
- **/boot ***

118. **Which directory is used to store temporary files?**

- /etc
- /temp
- /
- **/tmp ***

119. **What is the full path to the LILO configuration file?**

- /boot/lilo.conf
- **/etc/lilo.conf ***
- /var/lilo
- /etc/lilo

120. **To use an encrypted password in the GRUB Legacy configuration file, use the _____ option to the password directive.**

- –crypt
- –secure
- –encrypt

- **–md5 ***

121. **The primary configuration file for the GRUB 2 on a Fedora system is _____.**

- /boot/grub/grub.cfg
- **/boot/grub2/grub.cfg ***
- /boot/grub2.cfg
- /boot/grub/grub2.cfg

122. **The first process that the kernel launches is called the _____ process.**

- **init ***
- startx
- kernel
- sys

123. **The program that first starts the boot process is called the _____.**

- boot
- **bootloader ***
- start
- exec

124. **Which of the following are benefits of a shared library: (choose two)**

- **Programs can be smaller ***
- Programs run faster
- **Programs use a more consistent base of code ***
- Programs run slower

125. **Which of the following contents is in the ldconfig configuration file by default?**

- include /etc/ldconfig
- include ldconfig
- include all
- **include ld.so.conf.d/*.conf ***

126. **Which of the following commands would display the libraries used by the /bin/ls command?**

- **ldd /bin/ls ***
- ls -lib /bin/ls
- ldconfig /bin/ls
- listlib /bin/ls

127. **The same set of services are started or stopped at different runlevels.**

   True or False?

- True
- **False ***

128. **Which is the default runlevel for Debian based Linux systems?**
   - 3
   - **2 ***
   - 5
   - 4

129. **Which of the following is not a Linux boot system?**
   - **bootup ***
   - init
   - upstart
   - systemd

130. **Which file is overwritten at the end of each boot process with the messages that were generated while booting?**
   - **/var/log/dmesg ***
   - /var/log/dmsg
   - /var/msg/dmesg
   - /var/tmp/dmesg

131. **Which command is used to view the summary of the RAM and swap space?**
   - lsmem
   - du
   - iostat
   - **free ***

132. **Coldplug devices are devices that are connected when the power is off. True or False?**
   - **True ***
   - False

133. **Which of the following commands is used to view the network interface controller connected on the PCI bus?**
   - **lspci ***
   - lsmod
   - lsusb
   - lsnet

134. **HALD is the abbreviation for:**
   - Hardware Attribute Layer Daemon
   - Hardware Availability Layer Daemon
   - Hardware Abstraction Layer Driver
   - **Hardware Abstraction Layer Daemon ***

135. **What is the notification mechanism used to inform programs about a change in state of hardware devices?**

- **HALD uses dbus to send notifications ***
- Programs query HALD directly
- DBUS forwards queries from programs to HALD
- DBUS sends notifications to HALD