Linux Administration

Name: _____ Date: _____

Linux Examination: Fill in the blank lines with single word or short phrases. Box answers should be short paragraphs with three distinct facts. Circle the correct letter for multiple choice answers. For writing expressions, type the correct code.

<u>Linux OS</u>

1. Who was the inventor of the Linux kernel? _____

2. What year was the Linux kernel created? _____

3. What are the two biggest users of the Linux operating system? _____

4. Explain the GNU project

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<u>Bash Commands</u>

5. To make a new directory called "My_bills", we can type

   a. dir my_bills   b. newdir my_bills   c. mkdir my_bills   d. mkd my_bills

6. To read a file called "memos", we type

   a. more memos   b. most memos   c. read memos   d. see memos

7. We are in /usr/local/bin directory and want to return to the /usr/local directory. What bash command do we type?

   a. cd .   b. cd ..   c. cd …   d. rm ..

8. You wish to move the file "quiz" to the test directory. Type which expression.

   a. mv quiz /test   b. mv test /quiz   c. mo quiz / test   d. mo test /quiz

9. To clear the screen, we type

   a. clear   b. wipe   c. clr   d. erase

10. In the bash command **cp morning.txt /memos** , the /memos is

    a. the name of the new file   b. the name of the old file
    c. the name of the path where the file is copied   d. the name of the bash command library

11. In the phrase, **mknewdir summer**, what can be said about the UNIX expression?

    a. mknewdir is a Bash command   b. this expression would not work
    c. summer is not a valid directory name   d. there are no mistakes

12. You wish to copy the file "jones" to the project directory. Type which expression.

    a. cp jones /project   b. cp project /jones   c. cp jones / project   d. cp project /jones

13. To read a file called "company", we type

a. exam company   b. file company   c. read company   d. more company

14. The _____ command will remove a file.

a. rm   b. remove   c. rmv   d. rem

Scripts

15. In the following program, circle the comment.

```
# create_files  is a program that makes files to your name
echo "create_files  is a program that makes files to your name"
echo –n "How many files do you want to make? "
read total
let counter=0
while [ $counter –lt $total ]: do
  echo –n "what is the file name? "
  read filename
  touch $filename.txt
  let counter=counter+1
done
```

Fedora Client

16. What is the recommended processor speed for the Fedora OS?   _____

17. What is the recommended hard drive size for the Fedora OS?   _____

18. What is the recommended amount of RAM for the Fedora OS?   _____

19. Estimate the cost of building a client computer with the Fedora OS, along with a flat screen monitor, keyboard, mouse, speakers and printer

Computer:

Monitor:

Keyboard:

Mouse:

Speakers:

Printer:

Total:

20. What applications can we run on the Fedora client?

Ubuntu Server

21. What is the recommended processor speed for the Ubuntu server? _____

22. What is the recommended hard drive size for the Ubuntu server? _____

23. What is the recommended amount of RAM for the Ubuntu server? _____

24. Estimate the cost of building a client computer with the Ubuntu server, along with a flat screen monitor, keyboard, mouse, speakers and printer

Computer:

Monitor:

Keyboard:

Mouse:

Speakers:

Printer:

Total:

25. Why do Ubuntu server administrators have to part of a communication network such as the Ubuntu Forum?

26. Explain three important factors when loading Ubuntu server successfully.

27. Circle the errors in this static IP networking setup.

```
# The loopback network Interface
auto lo
iface lo inet loopback
# The primary network Interface
auto eth0
iface eth0 inet dhcp
    Address 192.168.30.80
    Netmask 255.255.0.0
    Gateway 192.168.40.1
    Broadcast 192.168.30.254
    Network 192.168.30.81
```

28. Write the expression to restart the network.

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29. What is the standard port for a SSH server?

    a. 15   b. 2222   c. 222   d. 22

30. Write an expression to sign onto a SSH server (192.168.10.65) as user jsmith.

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31. For the network with a gateway (router) address of 192.168.10.1 and DNS servers of 209.18.47.61 and 209.18.47.62, write the content of the resolv.conf file

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32. Write the expression to add jsmith to the server with the password A1B2c7_9 and make a home folder.

---

33. Write the expression to add jsmith to the server with the password A1B2c7_9 and make a home folder.

Match the following server types with their description by writing the letter next to the number.

34. ☐   NTP server   A   Capable of synchronizing time
35. ☐   Samba server   B   Resolves IP address to FQDN
36. ☐   SSH server   C   Connects to a Windows client
37. ☐   DNS server   E   Used as a Linux File server

38. Ubuntu servers require a smart password for setup.

    a. True   b. False

39. Write the expression to ping Google.

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40. What is incorrect about the forwarders file?

```
forwarders {
      192.168.10.;
      209.18.47.;
      209.18.47.;
      8.8.8.;
      8.8.4.;
};
```

41. What is written behind the NTP server for quick synchronization?   _____

42. Write the expression to open port 2222 on the Ubuntu firewall.

43. Write the expression to close port 22 on the Ubuntu firewall.

44. Write the expression to install unattended automatic updates

45. Write the expression to install Samba4.