

CSE365: Systems Administration

FINAL EXAM

NAME: _____

[1] How to change hostname of your server named "localhost" instead of "Hadrian"?

From: [root@localhost ~]#

To: [root@hadrian ~]#

[2] How to find out the IP address of the server? What command?

[root@hadrian ~]#

[3] How to find out the gateway of the server? What command?

[root@hadrian ~]#

[4] How to find out DNS settings on your server? What command?

[root@hadrian ~]#

[5] How to check the open ports on your server? What command?

[root@hadrian ~]#

[6] How to check the firewall rules on your server? What command?

[root@hadrian ~]#

[7] How to create an admin (example: **dmckay**) user account on your server? What command?

[root@hadrian ~]#

[8] How to make the admin user account sudo user?

[root@hadrian ~]#

[9] How to make sudo user can issue the command without password?

[root@hadrian ~]#

[10] What are the differences between following two commands and what will happen?

[dmckay@hadrian ~]# **yum -y install nmap**

[dmckay@hadrian ~]# **sudo yum -y install nmap**

[11] How to make your server open ssh (22) port and only dmckay user can access ssh connections to the server?

[12] Why do we have to disable root remote ssh login on the server?

[13] Why it is important to disallow empty password on the sshd_config file?

[14] How to put a legal restriction banner on the login screen on ssh?

[15] Why it is important to user account and administrator account?

[16] How to reset grub password on the server?

[dmckay@hadrian ~]#

[17] Why setting BIOS password is important?

[18] How to set boot sequences on BIOS? Change the following boot order to secure boot sequences.

1. Removable Devices
2. CD-ROM Drive
3. Hard Drive
4. Network boot

[19] How remove unnecessarily opened ports from the server?

[20] How to update or patch the server?

[21] David McKay wants to install a package is on not the yum repository, so he download a tar file. Then you tried to compile and install the package. It did not want to compile, what would be a reason?

[22] From question 22, why David wants to remove compiler after installation of the package?

[23] How DHCP server will reduce systems administrator's work load?

[24] Demonstrate how to setup DHCP server for 3 different subnets.

1. Subnet A: 192.168.0.0/24
 2. Subnet B: 192.168.1.0/24
 3. Subnet C: 192.168.2.0/24
- (Answer will be your /etc/dhcpd.conf file)

[25] Explain the following ACRONYMS in DNS configuration files.

1. TTL (Time to live) : explain
2. SOA: explain
3. IN: explain
4. A: explain
5. PTR: explain
6. MX: explain
7. CNAME: explain

[26] If you can't ping www.google.com, you can ping google's IP address from one of your servers.
How do you solve this problem? (Define the problem and show step-by-step solution)

[27] In MySQL server configuration, why do we put **skip-networking** in /etc/my.cnf file.
What are the pros and cons?

[28] How to reset MySQL root password if you forget or does not know?

[29] How to backup your company website (Web contents and MySQL Databases)?

[30] What are advantages of using SSH without password and disadvantages?

[31] What are the reasons to have strong password for your systems?

[32] What is rainbow table?

[33] What is following command do?

```
rsync -auvz -e ssh dmckay@beehive:/backup/* /backup/beehive/
```

[34] Explain following 3 backup methods.

1. Full backup
2. Incremental backup
3. Differential backup

[35] Explain following crontab file.

```
01 3 * * * bin/backup.bash
```

[36] Why do we need syslog server?

[37] What are differences between POP3 and IMAP?

[38] Define the role of MTA, MUA, and LDA on email system.

[39] Why /etc/passwd and /etc/shadow files are separated instead of include encrypted password in /etc/passwd file?

[40] What does CUPS stand for?

[41] What does PAM stand for?

[42] What is Desktop Virtualization?

[43] Which daemon handles periodic execution of command?

- A. daemon
- B. fstab
- C. config
- D. cron

[44] What are the most common ways to create and restore backups?

- A. Dump
- B. Restore
- C. Both A and B
- D. Neither A or B

[45] What are differences between TCP and UDP?

[46] What are differences between switch and hub?

[47] How to set expiration date on user account?

[48] Where do you list permanent configuration for mounts at?

- A. /etc/fstab
- B. /etc/initab
- C. /mount
- D. /drives

[49] Compare the following commands and options, and which one you will choose and why.

Yum vs Apt-get

[50] What are the duties of systems administrator?