**Nume:**

**Prenume:**

1. What is the Kernel ? ( multiple answers )
   1. The kernel controls everything inside-out on a system that runs the Linux operating system.
   2. The kernel controls the bios.
   3. The kernel is a set of software components called modules that work together coherently as a single unit to enable programs, services and applications to run smoothly and efficiently on the system.
   4. The kernel is a module of the linux operating systems that is used for K9 operations and S9 syntaxes.
2. Please detail the boot sequence of a linux server.

BIO -> Master Boot Record MBR-> Grand Unified Bootloader GRUB -> Kernel -> Init-> Runlevel

1. What is the difference between init 0 and init 6 ?

Init 0 -> stop all services in a good way and send the server to the halt state.

Init 6 -> stop al services , shut down the server and reboot’it to the default run level.

1. In which runlevel the system is in multi-user state and all system and network services are running ? ( multiple answers )
   1. Runlevel 1
   2. Runlevel 2
   3. Runlevel 3
   4. Runlevel 4
   5. Runlevel 5
2. What does single user mode represent?

It’s run level 1 with single user state that has all file sytems mounted and in mode for administrative task but does not configure netwok interfaces or to start daemons or to allow non-root logins

1. What is the difference between rescue mode and single user mode ?
2. What is the command to list the runlevel the system is running on ? ( multiple answers )
   1. Whoami
   2. Uptime
   3. Runlevel
   4. Who –r
   5. Top
   6. Netstat –pulantot | grep 80
3. What is grub ?

Grand Unified Bootloader GRUB 🡪 it’s a booting sequence that executes Kernel

1. The line in /etc/inittab: ***id:3:initdefault:*** what does it mean ?

It means that the INIT process should be 3 default process.

1. What is the PID number for the parent process ?
   1. 0
   2. 1
   3. 2
   4. 100
   5. 9999
   6. 65565
2. What is the role of the parent process ?
3. The grub file looks like this :

# cat /boot/grub/grub.conf

# grub.conf generated by anaconda

#

# Note that you do not have to rerun grub after making changes to this file

# NOTICE: You have a /boot partition. This means that

# all kernel and initrd paths are relative to /boot/, eg.

# root (hd0,0)

# kernel /vmlinuz-version ro root=/dev/sda2

# initrd /initrd-version.img

#boot=/dev/sda

default=0

timeout=5

splashimage=(hd0,0)/grub/splash.xpm.gz

hiddenmenu

title CentOS (2.6.18-194.el5)

root (hd0,0)

kernel /vmlinuz-2.6.18-194.el5 ro root=LABEL=/ rhgb quiet

initrd /initrd-2.6.18-194.el5.img

What does the highlighted line mean ?

It’s first partition to boot of the physical driver.

1. In which directory you have the kernel images stored?
   1. /root
   2. /kernel
   3. /var/kernel
   4. /boot
   5. /
2. What is the role of /var ? ( what does it contain )

It contains Variable files to which the system writes data during operetions

1. What does /opt contain ?
   1. Kernel files
   2. Network files
   3. Application files
   4. Configuration files
2. In which directory the linux OS creates a directory for each PID that is present on the server ?

/proc/PID

1. What is the difference between /bin and /sbin ( what does those directories contain also )

/bin – user binaries

/sbin – system binaries

1. Where are the home directories for users stored ? ( normal users, and root user )

/home/User

1. What will happen to the files from /tmp after a reboot ?
   1. They are archived
   2. Nothing
   3. They are moved to the root directory for archiving
   4. They are deleted
   5. The owner of the files will be root
2. What are the permissions for /tmp ? ( user:group:others )

777 –full permissions

1. What is ssh ?

Secure Shell (SSH) is a tool for remotely controlling, or transferring files between computers

1. How do you install ssh on linux servers ?
   1. Yum install ssh
   2. Zypper install ssh
   3. Apt-get install ssh
   4. All of the above
2. What is the standard port for ssh ?
   1. 8080
   2. 20
   3. 21
   4. 22
   5. 80
3. What is the concept of private and public keys ?
4. How can you generate your own ssh public/private key ? ( the command )
5. What is the main configuration file for ssh ?
   1. /etc/ssh/sshd\_config
   2. /etc/ssh/configssh
   3. /etc/configurations/ssh/sshd.conf
   4. /etc/sshd.conf
6. How to you restart the ssh service ?
   1. Service sshd restart
   2. Systemctl restart sshd
   3. /etc/init.d/sshd restart
   4. All of the above
7. Which is the file that should be modified (by adding you ssh key to it ) in order to gain access through a ssh key on a remote server ?
   1. ~.ssh/config
   2. ~.ssh/authorized\_keys
   3. /etc/sshd.conf
   4. None of the above.
8. What is the ssh agent ?
   1. Secret service hidden agent
   2. The ssh daemon that is at the base of the ssh service
   3. An authentication agent that can store private keys
   4. Generates public keys
9. You are driving a bus from Timisoara to Oradea at a speed of 50km/h. The bus is full of people, 2 people Vasile and Ghita get in the bus in Timisoara, 10 people the Popescus family get in at Vinga, 15 people get in at Arad station, and the bus has only 5 seats left. At Chisinau Cris 6 people try to get in. What is the driver’s name ?

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