

LPI-102 exam questions attentions

- **Number of Questions per topics:**

<u>Topic</u>	<u>Nr. of Questions</u>
Admin Tasks	15
Network Fundamentals	10
Network Services	18
Security	6
Kernel	5
Boot, init, runlevels	4
Printing	3
Documentation	6
Shell,scripts,compilation	6
Total ----->	73

As of 29.10.2004 the LPI 102 test is composed of 98 questions and only 73 are noted. They write that 70 will be noted but 73 were noted. It is not indicated which question are noted and which are not. You have 120 minutes to answer all the 98 questions. That is plenty of time. Most of the following questions are NOT the exact original formulation I got, but the themes were the same. A couple of questions were somehow doubled in the sense that they treated the same theme, so I wrote '2 times' before the questions.(just like the first on below)

Test Simulatoren:

Deutsch:

<http://www.linupfront.de>

Offline Deutsch 101/102 Test Simulator Programme.
Download der Test Simulator(Unten Rechts)

<http://www.linux-testserver.de/cms>

Online Deutsch & Englisch 101/102 Test Simulator.

Englisch:

<http://www.linux-praxis.de>

Online Englisch 101/102 Test Simulator.

[Http://www.linuxint.org](http://www.linuxint.org)

Online Englisch 101 Test Simulator.

Anmeldung 1:

Name: elop

Passwd: ulstein

- **Type of questions asked per topic:**

<u>Topic</u>	<u>Weight</u>
105: Kernel	
1.105.1 Manage/Query kernel and kernel modules at runtime	4
- 2 times: Command to unload a kernel module: Answer: rmmmod	
- Command to load a kernel module: Answer: modprobe	

- Location where kernel load options are written:
Answer: `/etc/conf.modules`
- What can be used to load kernel modules on kernel 2.4.x
Answer: `kmod`

1.105.2 Reconfigure, build, and install a custom kernel 3

and kernel modules.

- Error message 'module ... could not be located' after installing new kernel and rebooting. What is wrong?
Answer: Did not install kernel modules
- Command to check dependencies after installing a new kernel
Answer: `depmod`
- Command to prepare a kernel compilation configuration file:
Answer: `make config`

106: Topic 106 Boot, Initialization, Shutdown and Runlevels 3

1.106.1 Boot the system 3

- File to edit to write the default run level:
Answer: `/etc/inittab`
- File to edit to assign the action on <CTRL-ALT-DEL> combination
Answer: `/etc/inittab`
- How can I read kernel messages:
Answer: `tail /var/log/kernel.log`

1.106.2 Change runlevels and shutdown or reboot system. 3

- 2 times: Command to go into administration runlevel
Answer: `telinit 1`

107: Printing

1.107.2 Manage printers and print queues 1

- Command to delete print jobs:
Answer: `lprm`
- Command used to control the printer queues:
Answer: `lpc`
- File defining the printers definitions
Answer: `/etc/printcap`

1.107.3 Print files 1

- What this command do: `cat /etc/services | lpr -#2`
Answer: Prints 2 pages of the document `/etc/services`

- 1.107.4 Install and configure local and remote printers** **1**
- What does the file `/etc/hosts.lpd` do:
Answer: Only hosts entered in this file are allowed to use printers on this local host
- 108: Documentation**
- 1.108.1 Use and manage local system documentation** **4**
- Command to get the configuration file format of a command:
Answer: `man 5 command`
 - Command will give a short description on a command:
Answer: `whatis command`
 - Command that will find manual pages concerning a certain subject:
Answer: `apropos subject`
- 1.108.2 Find Linux documentation on the Internet** **3**
- Where is the main organization that is responsible for the HOWTOs
Answer: Linux Documentation Project
 - Which web site is having the latest HOWTOs
Answer: `www.linuxdoc.org`
 - Sequence of path concerning the Linux newsgroup
Answer: `comp.os.linux`
- 1.108.5 Notify users on system-related issues** **1**
- File content displayed to user before login prompt:
Answer: `/etc/issue`
- 109: Shells, Scripting, Programming and Compiling**
- 1.109.1 Customize and use the shell environment** **5**
- Command to delete a variable:
Answer: `unset Variablename`
 - File to create with `touch` to prevent anybody except root to login:
Answer: `/etc/nologin`
 - What happens when I have the files:
`hosts.allow`, `hosts.deny`, `nologin`
existing in `/etc` directory:
Answer: No hosts users can login either locally or via ssh
 - Which file will prevent, users to use `who` program if its access rights bit 'Read' for 'others' is not set?. Fill-in the blanks `/var/run/_____`
Answer: `utmp`

1.109.2 Customize or write simple scripts

3

- In script: `For var in $i ____`
`.....`
`done`

Fill in the blanks: Answer: `do`

- Strange question:

I have set the PATH environment variable to include
`/usr/local/sbin/` and start compiling:

The make doesn't find the `gcc` which is in `/usr/local/sbin/`
Which command should I issue: (Fill-in the blanks)

`_____ PATH allowable`

Answer: No idea what this allowable is so I answered: `export`

111: Administrative Tasks

1.111.1 Manage users and group accounts and related system files

4

- Command to change the age of a password:

Answer: `chage`

- Command to change from standard passwords to shadow
passwords

Answer: `pwconv`

- Access rights of `/etc/passwd` and `/etc/shadow`

Answer: `-rw- r-- r-- , -rw- --- ---`

- Command to find out which groups I belong:

Answer: `groups`

- Strange answers:

Q: I changed the `/bin/bash` to `/bin/false` in `passwd`, for
bob what will happen?:

2 of answers say:

- bob's account will run the utility `/bin/false`

- It will suspend the bob's interactive login

(suspend an already running login?...hummm)

I guess I failed on this one, I took the first one.

- I changed the PAM modules to allow the MD5 passwords.

Now what should I do?

Answer: reenter all user's password by hand

- Point to all individual user's bash files used:

Answer: `.bash_profile`, `.bash_login`, `.profile`

Note: `.bashrc` is only read by NON-Login bash(su)

- Bash config file for individual users for bash interactive login:

Answer: `.profile`

- bash configuration file for all users:

Answer: `/etc/profile`

- What does this command do: `PS2=\h\w\>`

Answer: Secondary prompt variable contains the host and path

1.111.2 Tune the user environment and system environment variables. 3

- Directory where I can include a directory which will be created automatically for all new users created afterwards.

Answer: `/etc/skel`

1.111.3 Configure and use system log files to meet administrative and security needs 3

- Which priority is used to exclude a facility in `syslog.conf`

Answer: `none`

- Where are all the different log files

Answer: configured in `/etc/syslog.conf`

- How can I read the boot-up kernel messages:

Answer: `cat /proc/kmsg | less`

- Command to read the bootup kernel messages:

Answer: `dmesg`

1.111.4 Automate system administration tasks by scheduling jobs to run in the future 4

- Command to cancel a pending AT job:

Answer: `atrm`

- Command to list at jobs

Answer: `atq`

- Number of fields in the time programming of crontab:

Answer: 5

- Minutes field content for every 2 minutes in crontab:

Answer: `*/2`

1.111.5 Maintain an effective data backup strategy 3

- 2 Times: Which files system is supported by dump:

Answer: `ext2`

- Which filesystem would never need to get backed-up:

Answer: `proc`

1.111.6 Maintain system time

4

- Command that updates the system's time:
Answer: `ntpdate`
- Crontab setting for regular clock setting through internet time server
Answer: `0 1 * * * /usr/bin/ntpdate ntp3.fau.de`
- What system facility do I actualize when I poll an Internet time server
Answer: I answered `clock`
- Command to display the system time and date
Answer: `date`

112: Networking Fundamentals

1.112.1 Fundamentals of TCP/IP

4

- 2 times: Private IP ranges reserved for Intranet use:(select 2 or 3)
Answer: `10.0.0.0-10.255.255.255`
`172.16.0.0-172.31.0.0`
`192.168.0.0-192.168.255.255`
(do not select `127.0.0.0-127.0.0.255`)
- What is used by the system to determine that an IP addr.. is in local network or from a remote network:
Answer: `netmask`
- Which is the statement which would create a default route using a gateway of 192.168.1.1?
Answer: `route add default gw 192.168.1.1`
Note: `route add default 192.168.1.1 .No good!`

1.112.3 TCP/IP configuration and troubleshooting

7

- Syntax of `/etc/protocols`
Answer: `egp 8 EGP`
- A router is between 2 networks, each network cannot contact the other. The default route is ok. Which file should I check.
Fill the blanks:
`cat /prox/sys/net/ipv4/_____`
Answer: `ip_forward`
- A gateway is down somewhere. Which command will find it out.
Answer: `traceroute`
- Protocol used by ping:
Answer: `ICMP`
- Command `netstat -a` takes an awful long time to finish.
What's wrong?
Answer: Problem with the DNS
- Command to configure a network interface:
Answer: `ifconfig`

- Which file contains simple conversion info of IP to hostnames:
Answer: `/etc/hosts`

1.112.4 Configure Linux as a PPP client

3

- If a ppp connection uses `/etc/ppp/peers/*`, what should be done:
Answer: ***** To Fill-in*****
I answered :
The `/etc/ppp/options` should be empty)
- You need to verify the modem operations. What utility can help you do this?
Answer: `minicom`

113: Networking Services

1.113.1 Configure and manage `inetd`, `xinetd`, and related services

4

- Service that binds the port 25 and is it needed on all hosts?
Answer: SMTP and only needed in MX hosts:
- I just made some changes to `/etc/inetd.conf`, what should I do next to actualize:
Answer: Get PID of `inetd` daemon and issue the command
`kill pid_of_inetd -SIGHUP'`
- I just changed from `inetd` to `xinetd` system. What should I do next:
Answer: Configure the configuration file of `xinetd`
(The `xinetd` is not compatible with the `inetd` config file)
- To disable telnet service on a system, which action would you take?
Answer: Comment the telnet entry in `/etc/inetd.conf`

1.113.2 Operate and perform basic configuration of `sendmail`

4

- Where are the received mail for user stored:
Answer: `/var/mail`
(It had also `/var/spool/mail....hummm`)
- Which file tom use to set a mail alias for incoming mails:
Answer: `/etc/aliases`
- Command to do after I edited the file `/etc/aliases` to actualise it.
Answer: `newaliases`

1.113.3 Operate and perform basic configuration of Apache

4

- Where should I configure the number of spare servers:
Answer: `/etc/httpd/hpptd.conf`

- Which are Apache configuration files:

Answer: `/etc/httpd/httpd.conf`,
`/etc/httpd/srm.conf`

- How many spare servers should I have for a low to medium use Internet web server:

Answers possible: 1, 10, 50, 100, 500
(I answered 10 but..... I guess 1 was also OK)

1.113.4 Properly manage the NFS, smb, and nmb daemons 4

- Config file `/etc/samba/smb.conf` has:

```
workgroup = boulga
guest account = nobody
```

What should be so that it works:

Answer: `nobody` should be a valid user in the local system

- File that has the directories for export to other hosts:

Answer: `/etc/exports`

- The file `/etc/exports` has:

```
/bolur    archie(rw)
```

What does that mean:

Answer: The host offers the dir. `/bolur` as NFS mount share to archie host

1.113.5 Setup and configure basic DNS services 4

- Which file has the list of DNS used for a host:

Answers: `/etc/resolv.conf`

- What is right about this configuration file of BIND4

```
primary    logan.com      192.101.3.5   logan.named
secondary  formula.com   156.45.25.9   formula.named
           blablalba
```

Answer: The host is a secondary DNS for domain `formula.com` and gets its data from `165.45.225.9`

1.113.7 Set up secure shell (OpenSSH) 4

- I have lost my passphrase what should I do to recover it:

Answer: There is no way to recover a lost passphrase

- Access rights for `/etc/ssh_host_key`

Answer: Readable only by root

- What is `/etc/ssh_known_hosts`

Answer: List of trusted hosts to which users can connect via ssh

- I installed a server, rebooted it and the users complain that they get the error message 'Secure connection refused' when using ssh.

What can be the cause of that:

Answer: The `sshd` daemon startup script is not included in the default runlevel.

114: Security

1.114.1 Perform security administration tasks **4**

1.114.2 Setup host security **3**

- DNS server must be secure, fast and accessible remotely.

Which of the following should you do?

Answer: disable `inetd`, run `ssh` and `named` as standalone daemons.

1.114.3 Setup user level security **1**

- No questions remembered