

10.5.10 Practice Questions

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Score: 93%

Passing Score: 80%



▼ Question 1: ✓ Correct

For what purpose would you edit the `/etc/localtime` file?

- ☒ ➡ Set the current time zone.
- ☐ Set the hardware clock time.
- ☐ Change the value of the time zone (TZ) environment variable.
- ☐ Set the system date and time.

Explanation

Use `/etc/localtime` (found typically on RPM distributions or `/etc/timezone` for Debian based distributions) to see the current time zone and change the time zone. The `/etc/localtime` file identifies the current time zone file used on the system. This is a symbolic link to a time zone file in the `/usr/share/zoneinfo` directory. Replacing this link changes the time zone.

Use **date** to view and manually set the system date and time. Use **hwclock** to view and set the hardware clock time and synchronize the hardware clock and the system time. Use **tzselect** to change the value of the time zone (TZ) environment variable.

References

 10.5.3 Time Zone Facts

q_time_zone_lp5_01.question.fex

▼ **Question 2:** ✕ Incorrect

You need to create a symbolic link to the `/usr/share/zoneinfo/EST` time zone file that permanently alters the time zone for the system.

What should you enter at the command prompt to accomplish this task?

`ln -s /usr/share/zoneinfo/EST /etc/localtime`

`ln -s /usr/share/zoneinfo/EST /etc/localtime`

Explanation

Use one of the following commands to create a symbolic link to the `/usr/share/zoneinfo/EST` time zone file that permanently alters the time zone for the system:

- **`ln -s /usr/share/zoneinfo/EST /etc/localtime`**
- **`cp -s /usr/share/zoneinfo/EST /etc/localtime`**

The `/etc/localtime` file identifies the current time zone file used on the system. This is a symbolic link to a time zone file in the `/usr/share/zoneinfo` directory. The `/usr/share/zoneinfo` directory contains a set of timezone configuration files, with each file identifying a specific time zone.

- Files are typically organized in subfolders based on continent (such as Australia) or major country (such as United States).
- Individual files identify a major city in the time zone (such as Perth) or a specific region (either a division of the country or a country within the continent).
- Information in the file identifies the UTC offset and any rules for daylight savings time.
- Depending on the distribution, time zone files might be located at `/usr/lib/zoneinfo`.

References



10.5.3 Time Zone Facts

`q_time_zone_lp5_02.question.fex`

▼ **Question 3:** ✓ Correct

Which command should you use to change the time zone (TZ) environment variable? (Select TWO).

- ☐ **date**
- ➡ ☒ **tzselect**
- ➡ ☒ **tzconfig**
- ☐ **netdate**

Explanation

Use **tzselect** or **tzconfig** to change the value of the time zone (TZ) environment variable. When executed, the utility prompts you to select a region, then a country, and so on until it has enough information to determine the time zone. The **tzconfig** command is used on Ubuntu Linux distributions in place of **tzselect**.

netdate sets the system time to match the time on a time server on the network. **date** manually sets the system time.

References

 **10.5.3 Time Zone Facts**

q_time_zone_lp5_04.question.fex

▼ **Question 4:**

✓ Correct

What is the full path and filename for the file on a Debian Linux distribution that displays the time zone settings?

**Explanation**

Use /etc/timezone to display the time zone settings on Debian computers. /etc/timezone identifies the current time zone by region and zone.

References**10.5.3 Time Zone Facts**

q_time_zone_lp5_06.question.fex

▼ Question 5:

✓ Correct

You need to set the system date and time using the **date** command.

Which **date** option should you use?

☐ -d☒ -s☐ -utc☐ -u**Explanation**

Use **date -s** to set the date and time. Use **date** to view and manually set the system time. Be aware of the other date options:

- **-d** shows the current date and time. **date** assumes **-d** if no options are used.
- **-u, utc** specifies UTC time.

References**10.5.3 Time Zone Facts**

q_time_zone_lp5_07.question.fex

▼ Question 6:

✓ Correct

What is the full path and filename of the file you should use to configure the hardware clock to use UTC automatically?



Explanation

Use `/etc/sysconfig/clock` to Configure the hardware clock to use UTC or local time automatically. The file acts as a configuration file that sets the `HWCLOCK` setting to control whether the clock uses local or Coordinated Universal Time (UTC):

- **HWCLOCK -u** specifies that the system use UTC.
- **HWCLOCK --localtime** specifies that the system use local time.

Managing a large group of computers in different time zones is less complex if **HWCLOCK** is set to use UTC.

References



10.5.6 Time Maintenance Facts

q_syst_time_lp5_01.question.fex

▼ Question 7:

✓ Correct

You want to use the **date** command to set the system time UTC time. Which **date** option should you use?

☐ -g☐ -s☐ -d☒ -u

Explanation

Use **date -u** or **date --utc** to manually set the system time to UTC time. Coordinated Universal Time (UTC), formerly known as Greenwich Mean Time (GMT), is a method for identifying a common time between devices regardless of their physical location in the world.

Other **date** options include the following:

- **-d** shows the current date and time. (**date** assumes **-d** if no options are used.)
- **-s** sets the date and time.

References



10.5.6 Time Maintenance Facts

q_syst_time_lp5_02.question.fex

▼ Question 8:

✓ Correct

Which **hwclock** option sets the system time to the current hardware clock time?



Explanation

hwclock -s or **hwclock --hctosys** sets the system time to the current hardware clock time. Use **hwclock** to view and set the hardware clock time and synchronize the hardware clock and the system time. Other **hwclock** options include the following:

- **-a, --adjust** adds or subtracts time from the hardware clock to account for systematic drift since the last time the clock was set or adjusted.
- **-r, --show** displays the current hardware clock time. **hwclock** assumes **-r** if no options are used.
- **--set--date** sets the hardware clock time and date.
- **-w, --systohc** sets the hardware clock based on the system time.
- **--localtime** sets the hardware clock to local time.
- **-u** sets the hardware clock to UTC time.

References



10.5.6 Time Maintenance Facts

q_syst_time_lp5_04.question.fex

▼ Question 9:

✓ Correct

You need to set the hardware clock to the same value as the system clock.

Which command should you use?

- ☐ **hwclock -a**
- ➡ ☒ **hwclock -w**
- ☐ **hwclock -s**
- ☐ **hwclock -r**

Explanation

hwclock -w or **hwclock --systohc** sets the hardware clock time to the current system time. Use **hwclock** to view and set the hardware clock time and synchronize the hardware clock and the system time. Other **hwclock** options include the following:

- **-a, --adjust** adds or subtracts time from the hardware clock to account for systematic drift since the last time the clock was set or adjusted.
- **-r, --show** displays the current hardware clock time. **hwclock** assumes **-r** if no options are used.
- **--set--date** sets the hardware clock time and date.
- **-s, --hctosys** sets the system time to the current hardware clock time.
- **--localtime** sets the hardware clock to local time.
- **-u, --utc** sets the hardware clock to UTC time.

References

 10.5.6 Time Maintenance Facts

q_syst_time_lp5_05.question.fex

▼ Question 10: **✓ Correct**

A Linux system can determine the time and date in which of the following ways? (Select TWO).

➡ ☒ It can set the system clock to the local time.

➡ ☒ It can use NTP to set time.

☐ It can use SMTP to set the time.







☐ It can use NNTP to set the time.

Explanation

Linux systems can determine the local time in different ways. They can follow the traditional PC method of setting the system clock to the local time. One of the best ways to set the time and date is to use NTP (network time protocol) to automatically synchronize the date and time with time servers on the network/internet.

NNTP (network news transfer protocol) and Simple Mail Transfer Protocol (SMTP) are not used to set the time.

References

-  1.1.4 Server Roles Facts
-  10.5.1 Time Zone Settings
-  10.5.4 Time Maintenance
-  10.5.7 Network Time Protocol (NTP)
-  10.5.8 Synchronize Time with NTP
-  10.5.9 NTP Facts

q_time_ntp_lp5_01.question.fex

▼ Question 11: **✓ Correct**

You want to configure the NTP daemon to receive time from *pool.ntp.org*.

What entry should you place in the `/etc/ntp.conf` file?







server pool.ntp.org

**Explanation**

`server pool.ntp.org` configures the NTP daemon to synchronize the time with the cluster of time servers at `pool.ntp.org`. Use the `/etc/ntp.conf` to configure the time providers on the NTP client.

- Each entry in the file begins with `server` and then the address of the time provider.
- `server 127.127.1.0` represents the local host address and sets the system time to the hardware clock if no other time providers are available.

References

-  1.1.4 Server Roles Facts
-  10.5.1 Time Zone Settings
-  10.5.4 Time Maintenance
-  10.5.7 Network Time Protocol (NTP)
-  10.5.8 Synchronize Time with NTP
-  10.5.9 NTP Facts

q_time_ntp_lp5_02.question.fex

▼ Question 12: ✓ Correct

Which of the following NTP configuration utilities is deprecated and should be avoided when possible?

- ☐ **ntpd**
- ☐ **ntptrace**
- ☐ **ntpq**
- ➡ ☒ **ntpdate**







Explanation

ntpdate is deprecated; use **ntpd** in its place. **ntpdate** updates the current time on a computer. **ntpdate**:

- Must be run as root.
- Will not function if **ntpd** is currently running.

ntpd manages the NTP daemon from the command line. **ntpq** queries the status of the NTP daemon. **ntptrace** displays the next stratum up from the time provider.

References

-  1.1.4 Server Roles Facts
-  10.5.1 Time Zone Settings
-  10.5.4 Time Maintenance
-  10.5.7 Network Time Protocol (NTP)
-  10.5.8 Synchronize Time with NTP
-  10.5.9 NTP Facts

q_time_ntp_lp5_03.question.fex

▼ Question 13: ✓ Correct

You are managing system time on your Linux computer, and you need to change the settings to point to a local NTP server IP address.







What is the full path and filename of the file you should edit?

**Explanation**

Use `/etc/ntp.conf` to configure the time providers on the NTP client.

- Each entry in the file begins with `server` and then the address of the time provider. For example, `server 0.fedora.pool.ntp.org` synchronizes the time with the Fedora time server pool.
- The `127.127.1.0` server represents the local host address and sets the system time to the hardware clock if no other time providers are available.

References

-  1.1.4 Server Roles Facts
-  10.5.1 Time Zone Settings
-  10.5.4 Time Maintenance
-  10.5.7 Network Time Protocol (NTP)
-  10.5.8 Synchronize Time with NTP
-  10.5.9 NTP Facts

q_time_ntp_lp5_06.question.fex

▼ Question 14: ✓ Correct

Which of the following commands manages the NTP daemon from the command line?

- ➡ ☒ **ntpd**
- ☐ **ntpdate**
- ☐ **insserve ntp**
- ☐ **ntpq**







Explanation

Use **ntpd** to manage the NTP daemon from the command line. **ntpd** options include the following:

- **-q** does a one-time synchronization with a time provider. It is similar to **ntpdate**.
- **-g** allows the NTP daemon to ignore insane time restrictions for the first synchronization.
- **-c** changes the default configuration file.

insserv ntp configures the NTP daemon to start at boot time on BSD systems only. **ntpdate** updates the current time on a computer. **ntpq** queries the status of the NTP daemon.

References

-  1.1.4 Server Roles Facts
-  10.5.1 Time Zone Settings
-  10.5.4 Time Maintenance
-  10.5.7 Network Time Protocol (NTP)
-  10.5.8 Synchronize Time with NTP
-  10.5.9 NTP Facts

q_time_ntp_lp5_07.question.fex

▼ Question 15: **✓ Correct**

Your system time is over thirty minutes different than the time on the NTP time provider. When you use the **ntpd** command, the time is not updated.







Which **ntpd** option should you include?

**Explanation**

NTP does not adjust times when time discrepancies are larger than 17 minutes. This is known as insane time. Use **ntpd -g** to allow the NTP daemon to ignore insane time restrictions for the first synchronization. Other **ntpd** options include the following:

- **-q** does a one-time synchronization with a time provider. It is similar to **ntpdate**.
- **-c** specifies the name and path of the configuration file. The default is `/etc/ntp.conf`.

References

-  1.1.4 Server Roles Facts
-  10.5.1 Time Zone Settings
-  10.5.4 Time Maintenance
-  10.5.7 Network Time Protocol (NTP)
-  10.5.8 Synchronize Time with NTP
-  10.5.9 NTP Facts

q_time_ntp_lp5_08.question.fex

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